

CALIFORNIA'S DIRECT POTABLE REUSE REGULATIONS: MAJOR PROVISIONS

The Direct Potable Reuse (DPR) regulations, adopted unanimously in December 2023 by the State Water Resources Control Board (Water Board), are extremely protective of public health and are among the most rigorous potable reuse regulations in the nation. The regulations, which became effective October 1, 2024, were developed following decades of research and studies by experts. The following provides a summary of some of the major provisions of the DPR regulations. For a full understanding of the DPR requirements, WaterReuse California recommends consulting the text of the regulation.

● NEW ORGANIZATIONAL STRUCTURE

The DPR regulations require a single agency to be ultimately responsible for compliance with the regulations. This Direct Potable Reuse Responsible Agency (DiPRRA) must be a public water system, but a DPR project may include other Partner Agencies such as those providing wastewater collection, wastewater treatment, or other public water systems.

● HIGHEST LEVEL OPERATOR CERTIFICATION REQUIRED WITH 24/7 STAFFING

Intensive monitoring and oversight will be required for the operation of DPR projects. Therefore, the regulations require the highest level of drinking water treatment certification (T5) for the chief operator that oversees the DPR advanced purification processes. Furthermore, the chief and shift operator at the advance water treatment facility must hold AWT5 and AWT3 levels of the new Advanced Water Treatment Operator certification, respectively. The shift operators at the facility must also obtain at least a Grade 3 certification. Either the chief or shift operator is required to be on-site at all times—24/7—unless in the future it can be demonstrated that an equivalent degree of operational oversight and reliability can be maintained with less than 24/7 staffing.

FOR MORE INFORMATION

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● ENHANCED WASTEWATER SOURCE CONTROL

The DPR regulations include the development of a robust source control program that expands beyond the requirements for IPR. The new requirements include a thorough monitoring program to provide early warning of potential issues, establishment of a source control committee, establishment of a community outbreak surveillance program, and an expansion of the local limits program to identify and limit contaminants in wastewater.

● ROBUST CHEMICAL CONTROL

The regulations build on the robust IPR treatment train by including two additional steps for DPR: ozone and biologically activated carbon (O3/BAC). Coupled with reverse osmosis (RO) and advanced oxidation, these additional purification barriers provide further protection against unwanted chemicals. These processes must occur before the reverse osmosis step of the purification process unless it can be demonstrated to the Water Board and an Independent Advisory Expert Panel that an alternative purification step is as protective of public health as O3/BAC. The DPR regulations include monitoring and water quality sampling for chemical control and CECs at several steps in the process

as well as operational triggers if minimum levels of purification are not achieved.

● RIGOROUS PATHOGEN CONTROL

The DPR regulations include the water industry's strictest requirements for pathogen reduction. The pathogen reduction requirements, which are expressed in terms of "log removal," greatly exceed the already protective IPR requirements and include continuous monitoring and operational triggers to divert the water if pathogen reduction drops below acceptable levels. DPR regulation requires log reductions of 20, 14, and 15 for enteric viruses, *Giardia* cysts, and *Cryptosporidium* oocysts, respectively, as compared to 12, 10, and 10 for IPR groundwater replenishment reuse projects.

CONCLUSION

The California DPR regulations ensure that the final DPR water meets or exceeds all drinking water standards and contain stringent regulations for emerging contaminants. The regulations are designed to protect public health, while providing a new, climate-resilient water supply for millions of Californians. For more details, please review the text of the [California DPR regulations](#).

DIRECT POTABLE REUSE STEPS

