

Proposed FL Potable Reuse Rules

Summary Fall 2021

Draft Definitions

Potable reuse involves the planned use of reclaimed water to augment potable water supplies or surface water resources which are used or will be used for public water supplies.

The state will define potable reuse systems as:

1. The introduction of advanced waste treatment and high-level disinfection reclaimed water to a drinking water treatment facility for additional treatment
2. Discharges to Class I surface waters
3. Discharges to surface waters which are directly or indirectly connected to Class I surface waters
4. Discharge to G-I, F-I, G-II, or G-III ground waters, injection of treated reclaimed water, or rapid-rate land application systems where the planned supply wells are located within applicable setback distances.

Draft Wastewater Facility Considerations

The wastewater/reclaimed water treatment facilities included in potable reuse projects shall be designed and operated to comply with the following:

1. the wastewater treatment facility must have a design average flow greater than 0.1 MGD.
2. advanced waste treatment requirements including filtration and high-level disinfection.

Wastewater treatment facilities intended for potable reuse projects shall be designed and operated to meet the primary and secondary drinking water standards applied as maximum single sample permit limits.

- a. The primary drinking water standard for asbestos shall not apply.
- b. The primary drinking water standards for total coliform shall be met except that public notification requirements shall not apply.
- c. The primary drinking water standard for sodium shall be applied as a maximum annual average permit limitation.
- d. Except for pH, the parameters listed as secondary drinking water standards shall be applied as maximum annual average permit limits.
- e. All pH observations in the reclaimed water shall fall within the pH range established in the secondary drinking water standards.

Draft Surface Water Considerations

Indirect potable reuse systems that discharge reclaimed water to Class I waters, upstream of Class I waters, or to waters contiguous to or tributary to Class I waters are defined as such if the discharge is located less than or equal to four hours travel time from the point of discharge to arrival at the boundary of the Class I water.

Discharges of reclaimed water upstream of Class I waters shall be considered potable reuse if the applicant demonstrates there is a need to supplement the Class I water for public water supply purposes; and, the discharge of reclaimed water will meet part or all of the need to supplement the water supply.

- Total organic carbon (TOC) shall not exceed 3.0 mg/L as the monthly average limitation.
- No single sample shall exceed 5.0 mg/L.

Draft Groundwater Considerations

Indirect potable reuse systems that discharge reclaimed water to ground waters shall meet the current setback distances for potable wells and the site requirements for hydraulic loading rates.

A wetlands or other surface water which may recharge an underlying aquifer through percolation downward through unconsolidated material shall not be considered as being directly connected to ground water. Discharges to other surface waters are subject to applicable discharge and permitting requirements (e.g., NPDES).

Discharge to a wetlands or other surface water which recharges to ground water through vertical percolation also are subject to existing regulation under the ground water quality rules.

Existing facilities with indirect potable reuse systems (those that had permit applications which authorized indirect potable reuse systems approved by the Department on or before [effective date of final rule]) shall comply with the potable reuse water system operation requirements in Chapters 62-550, 62-555 and 62-610, F.A.C., no later than January 1, 2032.

Draft Pretreatment Programs for Potable Reuse Systems

For potable reuse systems regulated under Part V of 62-610, a comprehensive pretreatment and source control program shall be developed and implemented for regulating the discharge of wastes to the wastewater facility that may adversely affect the potable reuse system's water quality or production.

Current program requirements

1. An assessment of the fate of constituents believed to be present, may pass through or cause interference with the potable reuse system and are precursors to disinfection byproduct formation, have primary and secondary drinking water standards, or listed in the most recent U.S. EPA Contaminant Candidate List;
2. A monitoring and sampling plan at influent, intermediate, and compliance locations paired with and monitored at the same frequency as the compliance monitoring;
3. Outreach to industrial, commercial, and residential communities for constituents that may be difficult to remove, are precursors to disinfection byproduct formation, have primary and secondary drinking water standards, or listed in the most recent U.S. EPA Contaminant Candidate List;
4. A current inventory of toxic chemicals and other contaminants of aquatic life and human health significance, including new toxic chemicals and other contaminants of aquatic life and human health significance resulting from new sources or changes to existing sources
5. Significant industrial users implement a sludge control plan re-evaluated annually and updated

AND.....in addition, a Pretreatment Program for PR will include:

1. Power-operated equipment associated with controlling and monitoring discharges to the wastewater collection system from industrial and commercial facilities (e.g., alarms, valve actuators, programmable logic controllers, and monitoring devices).
2. A continuous power source at all times in when a discharge can occur. At any time that the power source is interrupted the facility must inform the regulatory authority immediately. Manual monitoring and sampling shall be required to ensure compliance with control authority-issued permit.
3. An early warning system that has elements of real-time monitoring, event detection
4. A hierarchical decision tree or set of rules to classify the alert and determine the appropriate response is required.

Risk Assessment for Potable Reuse Systems

A risk assessment shall be conducted to identify wastewater constituents and locations where real-time monitoring should be best applied to detect and alert when a potential adverse event is occurring as well as a continuous improvement plan for performance and reliability of the early warning system. This plan shall be reevaluated at least once every two years and revised accordingly.

Reporting will include:

1. a summary of all analytical results of influent and effluent and removal efficiencies for those indicator compounds identified during the pilot study. The indicator compounds and the toxic pollutants identified and monitored on a semi-annual basis.
2. a summary of compliance with all applicable potable water reuse system requirements, and if not, whether any noncompliance was a result of non-domestic discharges;
3. a summary of all triggers of early warning systems and consequent responses; and
4. a summary of all enhancements to real-time monitoring and early warning systems.

Proposed Potable Reuse Pilot Requirements

- 12 months duration; plan submitted and approved by FDEP in advance
- Advanced Wastewater Treatment including filtration and disinfection
- State definition of advanced treatment for drinking water is FAT
- All microbial contaminants must be less than detection in finished water
- Constituents of emerging concern must be addressed; monitoring specified; surrogates identified
- Must consider parameters in the CCLs, UCMRs
- Must meet all SDWA MCLs
- Demonstration of surrogate monitoring
 - Including continuous parameters for quality
 - Including parameters that identify treatment performance
- HACCP approach required; must identify locations, triggers and actions