



*Guidance WQD-005  
August 2017*

# **GUIDANCE**

---

## **Category 6 Reclaimed Water Best Management Practices**

Traditionally, many wastewater treatment plants practice effluent reuse within the wastewater treatment plant. With the promulgation of the water reuse regulations in July 2012 (that set requirements for Category 2 through Category 5), it became evident that the continued use of reclaimed water within the treatment plant would be subject to more stringent requirements than necessary in a wastewater treatment plant setting to protect the worker's health and the environment. DEQ recognizes that the plant personnel are trained and experienced in the operation of wastewater processes and a special Category 6 reuse is appropriate to address the specific reuse within the treatment plant. This will allow continued use and also promote future reuse within treatment plants. This led to the creation of Category 6 water reuse regulations promulgated in September of 2015. This addition to the regulations aided wastewater treatment plants currently using effluent typically drawn before the OPDES discharge for non-potable uses to be in compliance and still protect the personnel and the environment. A wastewater treatment plant must meet the limits for the OPDES permit. DEQ produced this guidance in order to assist facilities in the protection of human health and the environment for personnel of the wastewater treatment plant. It is anticipated that utilities would use best management practices (BMPs) to achieve compliance with this regulation. This document offers guidance on BMPs that may be adopted by the Utility and incorporated in the Operation and Maintenance manuals of the facility.

#### **Definitions**

None

#### **Abbreviations**

**BMPs** – Best management practices

**O&M** – Operations and maintenance

**OSHA** – Occupational Safety and Health Administration

**PWS** – Public water supply

#### **References**

None

#### **Applicable OAC Sections**

OAC 252:627

#### **Disclaimer**

The premise of this Guidance document is that the approach discussed in the following has not been established elsewhere in existing regulations. The approach/guidance offers suggestions that utilities may consider and discuss with DEQ before embarking on the use of these BMPs.

## Guidance Recommendations

### A. Plant site uses. OAC 252:627-1-6(6)

1. Dilution water for chemicals used in the process such as polymers, coagulants, chlorination or dechlorination.
2. Mechanical seal water for gas compressors, pumps, and other equipment.
3. Mechanical seal water and cooling water for sludge pumps.
4. Odor and gas absorption including bio-filters used for odor control.
5. Centrifuge flushing.
6. Flushing grit and sludge pipes.
7. Gravity thickener make-up water.
8. Supply water for filter back wash.
9. Headworks screen washing.
10. Headworks screening washer-compactors.
11. Belt filter press.
12. Other reclaimed water that is permanently plumbed to a fixed nozzle and contained within unit operations.
13. Yard hydrants and hose bibs throughout the plant.
14. Other uses approved by DEQ.

### B. Best Management Practices (BMPs).

1. Clearly mark and identify the reuse system with posted warning signs throughout the plant site and on or near designated hose bibs and yard hydrants. The signs need to state the type of reclaimed water being used, i.e., Category 6. (OAC 252:627-3-5)
2. Reuse systems shall be operated only by or under the supervision of certified operators. (OAC 252:627-1-5(d))
3. Avoid cross connections between the reuse system and potable water system unless the potable water system is connected through a physical air gap of a minimum of 6-inches or with the provision of a quick connection to the public water supply (PWS) system, if necessary, that is physically disconnected from the PWS system when reclaimed water is being used. Conduct annual verification to ensure the integrity of the cross-connection control system.
4. Ensure that the plant Operation and Maintenance (O&M) manual includes a section on the operation and maintenance of the reuse system.

5. Review BMPs and the O&M manual annually with plant personnel involved in the reuse system operation. Keep training records and provide them to DEQ when requested.
6. Use OSHA-approved safety equipment where needed.
7. DEQ strongly encourages disinfection of reclaimed water before in-plant use. DEQ further recommends that chlorination be provided to areas of the onsite reclaimed water system connected to yard hydrants and hose bibs. A chlorine residual should be maintained to the end of pipe.
8. This is not an all-inclusive list of BMPs. Utilities are encouraged to develop site-specific BMPs.