333-061-0210

Scope
OAR 333-061-0210 through OAR 333-061-0272 apply to community and non-transient non-community public water systems, water suppliers responsible for these types of water systems, and the operators of water treatment plants and distribution systems at community and non-transient non-community public water systems.
Stat. Auth.: ORS 448.131
Stats. Implemented: ORS 448.450, 448.455, 448.460, 448.465 & 448.994

333-061-0220

Classification of Water Treatment Plants and Water Distribution Systems
Water treatment plants and distribution systems at community and non-transient non-community public water systems are classified based on the size and complexity of the water system facility. Classification of a water system or water system facility determines the level of certification required for operators in direct responsible charge of a water system or water system facility as prescribed by OAR 333-061-0225.

(1) Small water system classification applies when a water system serves 150 service connections or less and:
   (a) Uses only groundwater as its source; or
   (b) Purchases finished water from another public water system.

(2) Water distribution classification applies when a water system is not classified as small in accordance with section (1) of this rule, and is based on the population served by the water system as follows:

   Classification: — Population Served:
   Water Distribution 1 — 1 to 1,500
   Water Distribution 2 — 1,501 to 15,000
   Water Distribution 3 — 15,001 to 50,000
   Water Distribution 4 — 50,001 or more

(3) Water treatment classification applies to water treatment plants when:
   (a) A water system is not classified as small in accordance with section (1) of this rule; and
   (b) Treatment is provided for contaminants identified in OAR 333-061-0030(1) through (5) and (7) by that water treatment plant.
   (c) Water treatment classification is based on a point system that reflects the complexity of water treatment present. Points are assigned as follows:

<table>
<thead>
<tr>
<th>Item</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment System Size:</td>
<td></td>
</tr>
<tr>
<td>(population served or flow</td>
<td></td>
</tr>
<tr>
<td>whichever is greater)</td>
<td></td>
</tr>
<tr>
<td>Population served</td>
<td>1/10,000 (max 30)</td>
</tr>
<tr>
<td>Average daily flow</td>
<td>1/1 mgd (max 30)</td>
</tr>
<tr>
<td>Treatment System Water Source:</td>
<td></td>
</tr>
</tbody>
</table>
Groundwater: .................................................................3
Surface Water or Groundwater Under the Influence
of Surface Water .........................................................5

**Chemical Treatment/Addition Process:**
Fluoridation .............................................................5

**Disinfection:**
Ultraviolet (UV) .........................................................2
UV with Chlorine Residual ...........................................5
Ammonia/Chloramination ...........................................3
Chlorine ........................................................................5
Mixed Oxidants ..........................................................7
Ozonation (on-site generation) ......................................10
Residual Maintenance ..................................................0

**pH Adjustment:**
Slaked-Quicklime (Calcium Oxide) .............................5
Hydrated Lime (Calcium Hydroxide) ............................4
All others (hydrochloric acid, sodium hydroxide, sulfuric acid, sodium carbonate) ........................................1

**Coagulation & Flocculation Processes:**
Chemical addition (1 point for each type of chemical coagulant or polymer added, maximum 5 points) ............ 1-5

**Rapid Mix Units:**
Mechanical mixers .....................................................3
Injection mixers .........................................................2
In-line blender mixers ...............................................2

**Flocculation Units:**
Hydraulic flocculators ...............................................2
Mechanical flocculators .............................................3

**Clarification and Sedimentation Processes:**
Adsorption Clarifier ..................................................10
Horizontal-flow (rectangular basins) .............................5
Horizontal-flow (round basins) .....................................7
Up-flow solid contact sedimentation .............................15
Inclined-plate sedimentation ......................................10
Tube sedimentation ....................................................10
Dissolved air flotation ................................................10

**Filtration Processes:**
Single/mono media filtration ......................................3
Dual or mixed media filtration ....................................5
Membrane Filtration/Microscreens ...............................5
Direct ...........................................................................5
Diatomaceous earth ...................................................12
Slow sand filtration ....................................................5
Cartridge/bag filters ...................................................5
Pressure or greensand filtration .............................................. 10

**Stability or Corrosion Control:**
- Slaked-Quicklime (calcium oxide) ........................................... 10
- Hydrated Lime (calcium hydroxide) ......................................... 8
- Caustic soda (sodium hydroxide) ............................................. 6
- Orthophosphate .................................................................. 5
- Soda ash (sodium carbonate) .................................................. 4
- Aeration: Packed tower, Diffusers ......................................... 3
- Calcite ............................................................................. 2
- Others: sodium bicarbonate, silicates ................................. 4

**Other Treatment Processes:**
- Aeration ........................................................................ 3
- Packed tower aeration ......................................................... 5
- Ion exchange/softening ......................................................... 5
- Lime-soda ash softening ....................................................... 20
- Copper sulfate treatment ..................................................... 5
- Powdered activated carbon .................................................. 5
- Potassium permanganate ....................................................... 5
- Special Processes (reverse osmosis, activated alumina, other) .... 15
- Sequestering (polyphosphates) ............................................ 3

**Residuals Disposal:**
- Discharge to lagoons ............................................................. 5
- Discharge to lagoons and then raw water source ................... 8
- Discharge to raw water .......................................................... 10
- Disposal to sanitary sewer .................................................... 3
- Mechanical dewatering ......................................................... 5
- On-site disposal .................................................................. 5
- Land application .................................................................. 5
- Solids composting ................................................................ 5

**Facility Characteristics Instrumentation:**
- The use of SCADA or similar instrumentation systems to provide data with no process control ....................... 1
- The use of SCADA or similar instrumentation systems to provide data with partial process control .................. 3
- The use of SCADA or similar instrumentation systems to provide data with complete process control .......... 5
- Clear well size less than average day design flow ............ 5

**Classification of Water Treatment Plants**

<table>
<thead>
<tr>
<th>Classification</th>
<th>Points:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Treatment 1</td>
<td>1 to 30</td>
</tr>
<tr>
<td>Water Treatment 2</td>
<td>31 to 55</td>
</tr>
<tr>
<td>Water Treatment 3</td>
<td>56 to 75</td>
</tr>
<tr>
<td>Water Treatment 4</td>
<td>76 or more</td>
</tr>
</tbody>
</table>
(4) Filtration endorsement is an additional classification that applies when a water treatment plant is classified as Water Treatment 2 and uses conventional or direct filtration treatment to treat surface water or groundwater under the influence of surface water. Filtration endorsement certification, as prescribed by OAR 333-061-0235, is required for operators designated in direct responsible charge of a water treatment plant receiving the filtration endorsement classification, except for those operators already certified at Water Treatment Level 3 or higher.

Stat. Auth.: ORS 448.131
Stats. Implemented: ORS 448.450, 448.455, 448.460, 448.465 & 448.994