

Oregon Health Authority, Drinking Water Services

Plan Review requirements for Corrosion Control Treatment at public water systems.

These requirements apply to the design and construction of Corrosion Control Treatment for Public water systems. All Community and Non-Transient Non-Community water systems required to provide corrosion control shall install and operate optimal corrosion control treatment (OAR 333-061-0034). Acceptable options for corrosion control treatment include adjustment of source water pH or DIC, addition of orthophosphate, or other source water treatment using ion exchange, reverse osmosis, lime softening, or coagulation/filtration.

For assistance, call (971) 673-0405 or fax (971) 673-0694.

The following must be submitted and approved by OHA **prior to construction/installation** of Corrosion Control Treatment:

1. Project Diagram
2. Construction Plans and Specifications prepared by an Oregon-registered Professional Engineer (PE)
3. Pre-treatment Water Quality Parameter Results/Evaluation and Basis for Selection of Treatment
4. A Land Use Compatibility Statement (LUCS) – if required - or equivalent documentation, approved by the local planning authority
5. The appropriate plan review fee <http://healthoregon.org/pwsplanreview>

INSTRUCTIONS:

The responsibilities associated with this process include:

- A. Water system actions [Prior to Construction](#)
- B. Drinking Water Services response for [Plan Review](#)
- C. Water system actions [After Construction](#)
- D. Drinking Water Services grants [Final Approval](#)

These are addressed in detail as follows. Additional detail may exist in the Oregon Administrative Rules under OAR 333-061-0050 and 333-061-0060.

PRIOR TO CONSTRUCTION

A water system must submit the following (with some exceptions):

- a) Project Diagram;
- b) Construction Plans and Specifications;
- c) Land Use Compatibility Statement (LUCS) if required – see below; and
- d) Fee for Plan Review.

The submittal materials are sent to:

ATTN: PLAN REVIEW
OHA DRINKING WATER SERVICES
800 NE OREGON ST., STE 640
PORTLAND, OR 97232-2162

(Materials may be sent directly to the relevant regional engineer, though the fee payment should be sent to the address above with a letter or memo providing the water system's identification and project description. Sending the fee to a regional engineer may slow processing time.)

a) PROJECT DIAGRAM

- A diagram showing the location of the proposed Corrosion Control Treatment in relation to the other elements of the public water system in proximity to the project, and may include:
 1. Water sources controlled by the water system;
 2. Pumping facilities;
 3. Treatment facilities;
 4. Main Transmission line;
 5. Location of First customer served.
- *The project diagram should also include the following information:*
 1. Water system ID number
 2. Water system name
 3. Name, phone number, signature of the person who completed the diagram, and, if prepared by an Oregon-registered professional engineer, their stamp.
 4. Name, phone number, and mailing address of the company who completed the diagram (if applicable).

b) CONSTRUCTION PLANS AND SPECIFICATIONS

- Plans and specifications shall include:
 1. Construction drawings of the proposed treatment system noting the location of chemical addition and chemical feed details;
 2. Construction specifications;
 3. Operation and Maintenance manual or plan; and
 4. Compliance with NSF Standard 61 for materials in contact with drinking water, and NSF Standard 60 for chemicals used in the treatment process.
- Note: Corrosion Control Treatment must meet the requirements set forth in OAR 333-061-0034 [*Treatment Requirements and Performance Standards for Corrosion Control*]

c) SOURCE WATER QUALITY PARAMETERS/EVALUATION AND BASIS FOR RECOMMENDED TREATMENT

Refer to *Revised Guidance Manual for Selecting Lead and Copper Control Strategies*; EPA March 2003 (EPA-816-R-03-001). Source water quality monitoring shall include at a minimum of two rounds (two weeks apart) of source water pH, alkalinity, and source concentrations of lead and copper.

d) LAND USE COMPATIBILITY STATEMENT – A Land Use Compatibility Statement is required only if the proposed treatment system is housed in a new building – Please contact DWS to determine if a LUCS is required for the proposed project prior to submittal of the plan review documents.

<http://public.health.oregon.gov/HealthyEnvironments/DrinkingWater/PlanReview/Documents/LUCS.pdf>

or equivalent. A LUCS demonstrates that the construction project is compatible with every local government entity (e.g. city and/or county) having comprehensive planning authority over the site of the proposed project.

e) PLAN REVIEW FEE

A plan review fee is required for all submittals and must be received before DWS starts the review. For a current fee schedule, check <http://healthoregon.org/pwsplanreview>.

The fee check should be made *payable to*: **OHA Drinking Water**

PLAN REVIEW

The Oregon Health Authority – Drinking Water Services (DWS) will:

- a) Assign a **plan review number** (e.g., PR 1000-2011);
- b) Review all submitted information
- c) Based on the submitted information, the Program will **send a letter** to the water system and/or engineer indicating if the proposed corrosion control treatment meets state requirements (with or without conditions), or requesting additional information about the project. Correspondence may include:

Preliminary Approval – indicating that the project adheres to OAR requirements and that construction can begin

Conditional Approval – indicating that construction can begin, but specific conditions must be addressed for the project to meet OAR requirements

Request for Additional Information- indicating that DWS plan review cannot proceed until the specified information is submitted

Note, **Final Approval** of the project is issued when the engineer has certified that construction was in accordance with approved plans and specifications, all conditions were addressed (see

below), construction is complete, and the water system is performing all required post-installation water quality parameter monitoring, and has completed two six month rounds of distribution system lead and copper monitoring.

AFTER CONSTRUCTION

THE CORROSION CONTROL TREATMENT SYSTEM CAN BE USED IMMEDIATELY AFTER CONSTRUCTION IN ACCORDANCE WITH DWS PRELIMINARY OR CONDITIONAL APPROVAL UPON RECEIPT OF THE FOLLOWING INFORMATION:

1. As built construction details if different from the submitted plans;
2. Written acknowledgement by the PE that the project was completed as planned, and that all conditions outlined in the Conditional Approval letter were met.

Be sure to add the following identifying information on submitted materials:

- a) Water system ID number (for example 'OR4199999');
- b) Water system name;
- c) Plan review number; and
- d) Name, phone number, and mailing address of the person who can be contacted regarding this information.

As with pre-construction, mail to:

ATTN: PLAN REVIEW
OHA – DRINKING WATER SERVICES
800 NE OREGON ST., STE 640
PORTLAND, OR 97232-2162

Water systems may mail or email the materials directly to the appropriate DWS regional engineer. For assistance, you are welcome to call (971) 673-0405, or fax (971) 673-0694.

FINAL APPROVAL

The Oregon Health Authority – Drinking Water Services will:

- a) Review all submitted information including as-built documents and post-installation water quality monitoring results;
- b) Based on the submitted information, DWS may **send a letter** to the water system **indicating if the Corrosion Control Treatment has been granted Final Approval**. Water system's receipt of final approval concludes the plan review process for the project. If final approval cannot be granted, the letter will indicate what steps must be taken.

POST-INSTALLATION MONITORING OF TREATMENT

Following installation of corrosion control treatment, the public water system is required to conduct at least two six-month rounds of lead & copper sampling in the distribution system to establish the operational criteria to ensure optimal corrosion control and demonstrate performance. Once this operational criteria is established, the water system must monitor a DWS prescribed water quality parameter daily (typically pH), and submit the data as a monthly reporting form to DWS.

OAR referenced Design Standards:

Revised Guidance Manual for Selecting Lead and Copper Control Strategies; March 2003, EPA-816-R-03-001.

NSF Standards 60 (chemicals) and 61 (materials)