



THURSTON COUNTY
Washington
Est. 1852

**Public Health & Social Services
POLICY**

Policy Title

APPLICATION OF RECOMMENDED STANDARDS AND
GUIDANCE FOR PRESSURE DISTRIBUTION SEWAGE SYSTEMS –
FEBRUARY 2022 VERSION

Number

ONST.22.POL.802

Effective Date

02/01/2024

Latest Approval Date

06/21/2023

Approved By

Art Starry

Next Review Date

06/21/2029

POLICY INTENT

Purpose	This policy clarifies how Thurston County Environmental Health applies the Washington State Department of Health Recommended Standards and Guidance (RS&G) for Pressure Distribution Sewage Systems (February 2022).	
Scope	<input checked="" type="checkbox"/> Internal Only <input type="checkbox"/> Direct Impact to Citizens	
Are Office/Department Documents on this subject permitted?	<input checked="" type="checkbox"/> Yes, the policy clarifies regulations used only by the Environmental Health Division (Article IV and WAC 246-272A)	<input type="checkbox"/> No

POLICY STATEMENT

1. "Shall" and "must" items in the RS&G must be followed.

"Must" and "shall" items are required for all pressure distribution systems except as noted in this policy.

2. Guidance portions of the RS&G can be used at the discretion of the designer except as specified in this policy.

3. Pump Chamber: RS&G Section 2.4.1.4

- Basket-style pump chamber screens are NOT allowed for new construction.
- Basket-type screens are allowed only in repair situations where effluent filters CANNOT be installed in the septic tank outlet.
- Effluent filters are not required following an aerobic treatment unit unless specified by that manufacturer.
- An Independent float tree is required.

4. Pump Controls: RS&G Section 2.5.1.2.1

Timer-controlled dosing is required for:

- All sites where technologies meeting Treatment Levels A or B are mandated under WAC 246-272A-0230 or Article IV,
- All sand-based systems,
- Sewage systems designed for 1000 gallons or more per day,
- Reduced-sized gravelless drainfields, systems installed in Soil Types 2 and 3, and
- The dispersal component in all repairs using the allowances of Table VI of Article IV.

5. Piping materials: RS&G Section 2.6

- At a minimum, the material must meet ASTM D2241 Class 200 or equivalent.

6. Orifice spacing: RS&G Section 2.8.3.1

- All trench systems located in a Category I, Aquifer Recharge Area will require a minimum of one orifice per 6 sq. ft of infiltrative surface area, evenly distributed.
- Orifice spacing of 30 inches will be allowed for beds.

7. Minimum Design Submittal: RS&G Section 2.9

- Designs must address all the requirements of Article IV, Section 8.1
- Certain sewage system types require submittal of a service contract with Certified Monitoring Specialists at the time of record drawing submittal, see (policy) ONST.20.POL.605.
- Highest transport line elevation: required only for sites where it will be higher than the highest lateral invert. (*i.e.*, pumping over a hill)
- Electrical wiring diagram: NOT required with any design.
- Offsite wells within 100 feet.
- Valve boxes must indicate which laterals require ball valves and which laterals require check valves.
- Timers, control panel-dose counters, elapsed time meter including for proprietary products when appropriate.
- Depth to restrictive layer.
- Depth of soil dispersal component and depth of cover.
- Manufacturer and model of septic tank, pump chamber, Aerobic treatment unit.
- Specify width, make and model of gravelless chamber technology.
- Operating and design capacity
- User's manual: NOT required with the design for a sewage system using pressure distribution. (See section on User's Manual)
- Glendon® BioFilter, Lowridge Oscar or subsurface drip irrigation reserve areas provided as make-up areas for other reduced-sized technologies must be designed at a minimum of 240 gallons per day.

8. Record Drawing Information (including expired permits): RS&G Section 2.10

A record drawing will not be accepted for an on-site sewage system with no permit.

A complete record drawing submission must contain, at a minimum, the following:

- All items noted in Section 15 of Article IV, WAC 246-272A-265
- All items listed in the attached record drawing submittal requirements dated May 13, 2022
- Certification of satisfactory pressure test:
 - REQUIRED: the record squirt height for the system overall
 - Not required: squirt height for each later end
- When timers are used and after installation (hard-wired to a permanent source):
 - Measured drawdown in the pump chamber per does cycle; and
 - Timer settings for pump run time and pump time off. Timer must be set at operating capacity of the system.

9. User's Manual: RS&G Section 2.11

- The sewage system designer must provide the homeowners a user's manual for the following types of OSS's:
 - Proprietary treatment devices,
 - Reduced-sized drainfields
 - Systems designed to meet treatment level A that utilize pressure distribution as the final means of effluent treatment and dispersal.
 - Unless specified by the health officer, user's manuals do not need to be submitted to the department.

10. Operation and Maintenance: RS&G Section 3.0

Operation and maintenance requirements will be included in the Operational Certificate,

User's Manual, or the Recommended Maintenance information provided by the Department.

11. Compliance of pumps, controls, and associated electrical components with applicable NEC and local electrical codes is the responsibility of the manufacturer for those parts and the electrician installing them.

To satisfy FEMA flood zone requirements in a mapped flood plain, pump control boxes must be elevated two feet above the designated flood elevation.

The designer and property owner must work with the Floodplain Manager to ensure these requirements are met and the proper elevations are shown on the record drawing. The control panel elevations are required for record drawing acceptance.

12. Appendix C – Advantages/Disadvantages of Dosing Systems

When the system drains, a good rule of thumb for equal distribution is to design the dose volume to be at least 5 times the volume of the liquid that drains after a dose. Though only discussed in Item 5 of this section when the orifices are the 6 o'clock position, this rule of thumb must be followed in all instances and included in the hydraulic calculations of a design that the rule has been met.

DEFINITIONS AND ACRONYMS


Category I Critical Aquifer Recharge Area	As defined in Critical Areas Ordinance – Title 24
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RELEVANT LAWS AND OTHER SUPPORTING INFORMATION

County Code	Article IV
State Law	WAC 246-272A
State Rule	Washington State Department of Health's Recommended Standards and Guidance for Pressure Distribution Sewage Systems – February 2022 Version
Other Sources	
Superseded Documents	ONST.11.POL.802
Supporting Documents	"Record Drawing" Submittal Requirements – Updated April 14, 2022
Related Documents	Critical Areas Ordinance Title 24.10 ONST.20.POL.605 - Requiring Service Contracts with Certified Monitoring Specialists
Communication and Implementation Strategy	The Policy Owner will: <ul style="list-style-type: none">• Coordinate the review of the Office/Department Documents to ensure consistency• Send signed updated policy to OSS Professionals and Staff through Constant Contact e-mail• Post signed updated policy to Division's OSS Professionals Webpage and PHSS intranet site.

POLICY ADMINISTRATION

Policy Owner	Steve Petersen, Program Manager, EH Division	
Contact Person (if different from above)		
Roles and Responsibilities	Laura Blakely	Policy Administrator

REVISION HISTORY		
Effective Date	Approved By	Modifications
06/21/2023	 Art Starry/Environmental Health Director	<ul style="list-style-type: none"> • Policy Updated • Added to Item 3 effluent filter comment and float tree • Added Item 5 to be consistent with the Construction Manual Added reserve make- up area requirement In Item 7. • Added staking requirement. • Added “including expired permits” to Item 8. No record drawing may be submitted for OSS without a permit. • Added hard wired language. • Eliminated designer to add provisions to locate ports as they are required to be shown on record drawing in code and attached Record Drawing Submittal Requirements in Item 8. • Added language regarding control panel in flood zone (Item 11). • Added 5x rule requirement (Item 12).
Xx/xx/xxxx	_____ Name/Title	
Xx/xx/xxxx	_____ Name/Title	
Reviewers of the Current Revision	Brad Sangston /Environmental Health Specialist II _____ Name/Title Steve Davies /Environmental Health Specialist II _____ Name/Title Wendy Jonas /Environmental Health Specialist II _____ Name/Title	_____ Name/Title _____ Name/Title _____ Name/Title

FURTHER INFORMATION	
This section is not published on the final PDF document. It is for website purposes only	
Keywords for search engine	Pressure distribution system, RS&G, record drawing, operation and maintenance, dosing system