

WEBER-MORGAN HEALTH DEPARTMENT

LARGE UNDERGROUND WASTEWATER TREATMENT SYSTEMS
REGULATION

Adopted by the Weber-Morgan Board of Health

October 26, 2009

Under Authority of Section 26A-1-121
Utah Code Annotated, 1953, as amended

By



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By



Ken Johnson, Chair, Board of Health

**WEBER-MORGAN HEALTH DEPARTMENT
LARGE UNDERGROUND WASTEWATER TREATMENT SYSTEMS
REGULATION**

1.0 Title, Applicability and Purpose.

- 1.1 These standards shall be known as the Large Underground Wastewater Treatment System Regulation, hereinafter referred to as "this Regulation."
- 1.2 This regulation shall govern the treatment of wastewater by regulating large underground wastewater treatment systems.
- 1.3 This regulation establishes definitions; sets administrative requirements, soil and ground water requirements and design and installation requirements of onsite wastewater treatment systems to protect public health and the environment.

2.0 Authority.

- 2.1 It is the responsibility of the Weber-Morgan Health Department to provide wastewater management services for the citizens of Weber and Morgan Counties as legislated under Section 26A-1-106 and 26A-1-108 of the Utah Code Annotated, 1953 as amended.
- 2.2 The Weber-Morgan Board of Health is authorized to make standards and regulations pursuant to Subsection 26A-1-121(1) of the Utah Code Annotated, 1953 as amended.
- 2.3 The Weber-Morgan Board of Health is authorized to establish and collect fees pursuant to Section 26A-1-114 of the Utah Code Annotated, 1953 as amended.
- 2.4 The Weber-Morgan Health Department may deny any application for a permit if it appears that the operation of the onsite wastewater treatment system will not comply with this regulation.

3.0 Prohibitions.

- 3.1 It shall be unlawful to install, construct, alter, replace, enlarge, extend, or otherwise modify any Large Underground Wastewater Treatment System unless a Letter of Review and Feasibility is issued by the Department.

- 3.2 It shall be unlawful to change the use of real property, expand a building or dwelling, or add accessory buildings or structures occupying an area greater than 120 square feet, without a review of the wastewater treatment system by the Department.
 3.2.A Accessory buildings or structures include, but are not limited to, garages, sheds, barns, swimming pools, patios, decks and driveways or parking areas.
- 3.3 It shall be unlawful to use or maintain any wastewater treatment system that is not adequately functioning. Wastewater treatment systems shall be maintained in good working order. There shall be no activities or conditions permitted which would interfere with the proper operation of wastewater treatment systems. It is specifically prohibited to construct or place buildings, to install paving, to plant trees or shrubs, to regrade or place fill, to allow crossing by vehicles, to install above ground pools, or to install driveways or parking areas over absorption systems.
- 3.4 It shall be unlawful to discharge anything but wastewater into a wastewater treatment system. Surface and subsurface water including roof, cellar, foundation, and storm drainage shall not be discharged into the wastewater treatment system and shall be disposed of so as to in no way affect the proper functioning of the system.

4.0 Incorporation by Reference.

The requirements as found in the Utah Department of Environmental Quality, Large Underground Wastewater Systems Rule, R317-5 are adopted and incorporated by reference with Weber-Morgan Health Department amendments:

Information to assist the User.

The structural nomenclature for amending the State Rule will be as follows:

Title	R317
Rule	R317-5
Section	R317-5-1
Section	R317-5-1.1
Subsection	R317-5-1.1.A
Subsection	R317-5-1.1.A.1
Subsection	R317-5-1.1.A.1.a
Subsection	R317-5-1.1.A.1.a.i

- 4.1 Amend subsection 1.3.A to read:

1.3.A Weber-Morgan Health Department Requirements – Plans for new Large Underground Wastewater Treatment Systems (LUWTS), alterations of LUWTS, or extensions of LUWTS shall be submitted to the Weber-

Morgan Health Department for review. Plans meeting the requirements of the Weber-Morgan Health Department Rule will receive a Letter of Feasibility and Review that shall be submitted to the Utah Division of Water Quality as part of the plans required for a LUWTS construction permit.

4.2 Amend section 1.4 to read:

1.4 Operation and Maintenance: Operation and maintenance shall be provided by the owner to ensure the LUWTS is functioning properly at all times. A renewable operating permit issued by the Weber-Morgan Health Department is required for all LUWTS.

A. Notice of Intent and Renewable Operating Permit Required:

1. The owner of a LUWTS shall provide a written notice of intent (NOI) to operate a LUWTS to the Division of Water Quality, and the Weber-Morgan Health Department. Those systems currently in operation must submit the NOI no later than January 01, 2010. New systems permitted under this rule must submit the NOI prior to final inspection. The NOI shall be specific for the renewable operating permit and shall include the following information:
 - a. Facility name and address; owner name, address and contact information.
 - b. List of facility components. e.g., septic tank, pump tank, gravel drainfield trench, gravelless chambers, pressure drainfield, etc.
 - c. Design flow (gallons per day) and number and type of connections.
 - d. Type of waste treated and disposed, i.e., residential, restaurant, other commercial establishment, etc.
 - e. Sketch plan of existing system showing major facility components.
2. Renewable Operating Permit Required: Operating permits shall be renewed annually on or before August 01st of the calendar year.
3. Failure to renew the operating permit prior to expiration will result in a late fee being assessed. The late fee will consist of the permit fee being doubled for thirty days overdue, tripled for sixty

days overdue, and quadrupled for ninety days overdue.

4. Failure to renew an operating permit after ninety days will result in the Department conducting the required inspections, or contracting out the required inspections to a contract service provider. All costs incurred by the Department to insure a permitted system is inspected as required will be billed to the property owner.
5. Operating permits shall only be issued when the following requirements are met;
 - a. The system has been installed and tested according to the approved design.
 - b. The operation and maintenance instructions have been finalized and approved by the Department.
 - c. All other requirements of the construction permit have been met.
6. Operating permits shall be renewed only after the following requirements have been met;
 - a. The system has been inspected as required by R317-5, and inspection results have been submitted to the Department
 - b. All required sample results for packed-bed media have been submitted and meet the requirements..
 - c. Deficiencies noted in inspections have been corrected.
 - d. The system is operated and maintained as approved.
 - e. The system is deemed compliant as per rule.
 - f. All applicable fees have been paid.

B. Local Health Department Authority to Issue Operating Permits:

1. The Weber-Morgan Health Department has received approval from the Division of Water Quality to administer renewable operating permits for LUWTS within Weber and Morgan Counties. This approval gives the Weber-Morgan Health department the authority to implement and enforce inspection, servicing, monitoring and reporting requirements of this rule.
2. The Weber-Morgan Health Department must submit an annual report on or before September 01

of the calendar year, to the Division of Water Quality containing:

- a. A list of LUWT systems under delegation.
- b. A summary listing compliance status of each system
- c. A summary of any enforcement actions taken, identifying those actions that are still pending, and those that have been resolved.

C. Annual Report. The owner shall submit an annual report covering the period of July 01 to June 30 (the “reporting year”) to the Weber-Morgan Health Department no later than August 01 of each calendar year. The Owner shall report the following items:

1. All information required to be submitted for the NOI.
2. Checklist of inspections performed as required by rule, including the date of the inspection and a list of findings.
3. Sampling results as required for packed-bed-media.
4. Signature of owner or certified operator, and date.

D. Owner Responsibility to Maintain System: Owners are responsible for maintaining their LUWTS and for performing periodic inspections and servicing of the system. Inspections of conventional systems (gravity, or pump to gravity) shall be not less than once each reporting year, and inspections of at-grade, pressure, mound and packed bed media systems shall not be less than twice each reporting year. At a minimum, the owner is responsible for inspecting these components of the various types of system:

1. Community septic tank or treatment unit – measure sludge and scum levels and pump when necessary.
 - a. The tanks shall be pumped when the floating scum mat is within three inches of the bottom of the outlet device, or
 - b. When the sludge level has built up to twelve inches from the bottom of the outlet device
 - c. Recommendations are to pump tanks before these limits are reached
2. Effluent screen/filter – clean when necessary.
3. Distribution boxes, drop boxes, alternating valves or other components that direct water flow.
4. Pumps chambers, floats, alarms and control panels. Flow meter, hour meter and event counter readings must be reported.
5. Absorption field(s), monitoring wells, and ground surface conditions.

6. Pressure distribution laterals, lateral head pressures, initial readings, adjustments and final readings must be reported.
- E. Operation and Maintenance Manual Required: New systems must have a written operation and maintenance document describing the treatment system and outlining routine maintenance procedures, including checklists and maintenance logs needed for proper operation of the system. A copy of this document must be provided to the Weber-Morgan Health Department during plan review.
- F. Packed Bed Media System Sampling and Monitoring Requirements: The owner of a packed bed media system is responsible for sampling and monitoring for Chemical Oxygen Demand (COD), Total Suspended Solids (TSS) and Total Inorganic Nitrogen (TIN) at an interval not exceeding six calendar months. Additional sampling and monitoring may be required if it has been determined that there is a potential for groundwater impacts. Effluent quality of a grab sample, before discharge to an absorption system, shall not exceed 75 mg/L COD and 25 mg/L TSS.
1. Effluent COD exceeding 75 mg/L or TSS exceeding 25 mg/L shall be followed by weekly sampling until two successive results are obtained that are within the limits.
 2. Two successive samples resulting in reading that exceed either the 75 mg/L COD or the 25 mg/L TSS shall result in the system being deemed non-compliant requiring further evaluation and a corrective action plan.
 3. For non-complying systems, The Weber-Morgan Health Department shall issue an order requiring:
 - a. the owner to take the necessary steps to correct the system performance;
 - b. effluent sampling for COD and TSS, weekly, until two successive samples are found to be in compliance;
 - c. payment of fees for additional inspections, review and testing;
 - d. an evaluation of the system design including non-approved changes, wastewater flows, and biological and chemical loading to the system;
 - e. an investigation of wastewater generator practices related to the discharge of chemicals into the system, such as photo-finishing chemicals, laboratory chemicals, excessive amounts of cleaners or detergents, etc.; and
 - f. additional tests or samples to troubleshoot the system malfunction.

- 4.3 Amend section 1.7 to read:

NEW PROCESSES AND METHODS OF DISPOSAL: Where unusual conditions exist, other methods of disposal not described herein may be employed if approved by the Utah Water Quality Board and by the Weber-Morgan Health Department. The approval will be based on evidence of adequacy to meet water quality standards and other requirements of the Code.

- 4.4 Amend Table 5-1 item Seepage Pits (Trenches) to read:

Deep Wall Trenches

- 4.5 Amend Table 5-1 footnote (e) to read:

(e) Deep wall trenches must be installed within an established absorption zone. The absorption zone will be sized based on the ratio of ground surface area "GSA" to the required sidewall area "SWA". The GSA/SWA ratio must be at least 2.5. The trenches shall be installed within the absorption zone such that the spacing between trenches will be equal. Spacing of 12 feet (sidewall to sidewall) shall be a minimum. Distance to the edge or boundary of the established absorption zone shall be a minimum of 15 feet. The system must also conform to all other separation requirements identified in Table 5-1.

- 4.6 Amend section 1.11 to read:

CONSTRUCTION INSPECTION: approval to operate the constructed/installed facilities shall be issued following a final inspection by a representative of the Weber-Morgan Health Department and a representative of the Division of Water Quality. The facilities must be inspected after installation but prior to backfilling.

- 4.7 Amend subsection 2.6.C to read:

C. If the top of the tank is located more than 18 inches below finished grade, all access openings required in subsection (1) above, shall be extended to within 6 inches of the finished grade.

- 4.8 Add new subsection 2.6.D to read:

The maximum depth of fill material allowed over the top of a septic tank shall be 36 inches.

4.10 Amend subsection 3.1.B to read:

Absorption devices placed in sloping ground shall be so constructed that the horizontal distance between the center of the distribution line (perforated pipe or chamber) and the ground surface is at least 11 feet, 6 inches.

4.11 Amend subsection 3.1.C to read:

Soil having excessively high permeability, such as gravel with large voids, affords little filtering and is unsuitable for absorption systems. Percolation rates greater than 1 minute per inch are not acceptable for placement of a LUWTS. For percolation rates of 1 minute per inch to 5 minutes per inch, packed bed media systems are required.

4.12 Amend section 3.3 to read:

3.3 SEEPAGE PITS: Seepage pits are not permitted by the Weber-Morgan Health Department

4.13 Amend section 3.5 to read:

3.5 DEEP WALL TRENCHES: Deep wall trenches consist of deep trenches filled with clean, coarse material. They shall conform to the requirements:

4.14 Amend Table 5-7 to read:

TABLE 5-7
DEEP WALL TRENCH CONSTRUCTION DETAILS

ITEM	UNIT	MINIMUM	MAXIMUM
Generals			
Distance between deep wall trenches	feet	12(a)	-
Diameter of distribution pipe	inches	4	-
Size of coarse material	inches	3/4	12
Bottom of trench to maximum ground water	feet	2	-
Bottom of trench in unsuitable soil			

or bedrock formations	feet	4	-
Depth of coarse material:			
Under pipe	feet	4	-
Over distribution pipe	inches	2	-
Depth of backfill over material	inches	6	48
Seepage trench width	feet	2	-
Seepage trench length	feet	-	100
Effluent Distribution pipe			
Diameter	inches	4	-
Slope	percent	level	level

Footnotes:

(a) See Table 5-1

4.14 Amend Table 5-8 title to read:

DEEP WALL TRENCH ALLOWABLE SIDEWALL SEEPAGE RATES

4.15 Add new subsection 4.A.4 to read:

One or more percolation tests shall be made in separate test holes on the proposed absorption system site to assure that the results are representative of the soil conditions present. Percolation tests for deep wall trenches shall comply with R317-4-9. Where questionable or poor soils conditions exist, the number of percolation tests and soils explorations necessary to yield accurate, representative information shall be determined by the regulatory authority and may be accepted only if conducted with an authorized representative present.

4.16 Amend Subsection 4.B.1 to read:

1. Test results shall be considered an essential part of plans for absorption systems and shall be submitted on a signed "Percolation Test Certificate" or equivalent, certifying that the test were conducted in accordance with these requirements, and indicating the depth and rate of each test in minutes per inch, the date of the tests, the logs of soils exploration pits, a statement of the present and maximum groundwater table, and all other factors affecting percolation test results. Percolation tests shall be conducted in accordance with the certification requirements of R317-11, and in accordance with the following:

5.0 Adjudicative Proceedings.

In accordance with the Weber-Morgan Health Department Adjudicative Proceedings, a Department conference may be requested in writing within ten (10) days of any action in which a party is aggrieved.

6.0 Conflict.

In any case where a provision of this Regulation is found to be in conflict with a provision of any ordinance or local law, or with a provision of any statute, rule, or order of the State of Utah, the provision which established the higher standard for the promotion of the health, welfare and safety of the citizens of Weber or Morgan Counties shall prevail. In any case where a provision of this Regulation is found to be in conflict with a provision of any other ordinance or local law existing on the effective date of this local law, or with a provision of any statute, rule, or order of the State of Utah, which established a lower standard for the promotion of the health, welfare and safety of the citizens of the municipality, the provisions of this local law shall be deemed to prevail.

7.0 Severability.

The provisions of this Regulation shall be several, and if any clause, sentence, paragraph, subdivision, section, or part of this local law shall be judged by competent jurisdiction as being invalid, such judgment shall not affect, impair, or invalidate the remainder thereof, but shall be confined to the part thereof directly involved in the controversy in which such judgment shall have been rendered.

8.0 Effective Date.

This Regulation including Appendix X shall become effective the day following its adoptions by the Weber-Morgan Board of Health. And will supersede previous onsite wastewater system regulations adopted by the Board of Health. Appendices may be modified by the Department without affecting the rest of this Regulation. Appendices when amended by the Board of Health shall become effective on the day following adoption.