

**DIVISION 71  
ON-SITE SEWAGE DISPOSAL**

[ED NOTE: Effective January 1, 1974, Chapter 835, Oregon Laws 1973 transferred jurisdiction for subsurface sewage disposal to the Department of Environmental Quality and initiated a state-wide permit program for installation of subsurface systems. Chapter 835, Oregon Laws 1973 also repealed State Health Division legal authorities effective October 5, 1973. In order to provide continuity of the program with minimum changes until January 1, 1974, and based on authorities contained in ORS 449, the Department of Environmental Quality adopted temporary rules to cover the interim period and the Department of Environmental Quality and the State Health Division entered into a contract pursuant to ORS 449.062 whereby the Health Division and local Health Departments continued to implement the subsurface program until January 1, 1974.]

**Individual On-Site Systems**

**340-071-0100**

**Definitions**

As used in OAR 340, divisions 071, 072, and 073, unless otherwise specified:

- (1) "Absorption Facility" means a system of open-jointed or perforated piping, alternative distribution units, or other seepage systems for receiving the flow from septic tanks or other treatment facilities and designed to distribute effluent for oxidation and absorption by the soil within the zone of aeration.
- (2) "Active Sand Dune" means wind drifted ridges and intervening valleys, pockets, and swales of sand adjacent to the beach. The sand is grayish-brown (color value of four (4) or more), with little or no horizon, color, or textured differences. Active dunes are either bare of vegetation or lack sufficient vegetation to prevent blowing of sand.
- (3) "Aerobic Sewage Treatment Facility" means a sewage treatment plant which incorporates a means of introducing air and oxygen into the sewage so as to provide aerobic biochemical stabilization during a detention period. Aerobic sewage treatment facilities may include anaerobic processes as part of the treatment system. Mechanical Oxidation Sewage Treatment Facility means an aerobic treatment facility.
- (4) "Aerobic System" means an alternative system consisting of a septic tank or other treatment facility, an aerobic sewage treatment facility and an absorption facility, designed to provide a level of treatment before disposal.
- (5) "Agent" means the Director or that person's authorized representative.
- (6) "Alteration" means expansion and/or change in location of an existing system, or any part thereof. Major alteration is the expansion or change in location of the soil absorption facility or any part thereof. Minor alteration is the replacement or re-location of a septic tank or other components of the system other than the soil absorption facility.
- (7) "Alternative System" means any Commission approved on-site sewage disposal system identified within this division, for use in lieu of the standard subsurface system.
- (8) "Approved Material" means construction items that have been reviewed and accepted for use by the Department.
- (9) "Approved Criteria" means methods of design or construction that have been reviewed by the Technical Review Committee (TRC) and accepted for use by the Department.
- (10) "ASTM" means American Society of Testing Materials.
- (11) "Authorization Notice" means a written document issued by the Agent which establishes that an existing on-site sewage disposal system appears adequate to serve the purpose for which a particular application is made.
- (12) "Authorized Representative" means the staff of the Department of Environmental Quality or staff of the local governmental unit performing duties for and under agreement with the Department of Environmental Quality.
- (13) "Automatic Siphon" means a hydraulic device designed to rapidly discharge the contents of a dosing tank between predetermined water or sewage levels.
- (14) "Bedroom" means any room within a dwelling which is accepted as such by the State of Oregon Department of Commerce building codes representative or the local authorized building official having jurisdiction.
- (15) "Biochemical Oxygen Demand (BOD)" means a measure of the decomposable organic matter in wastewater. It is used as an indication of wastewater strength. For the purpose of these rules, all references to BOD shall be for the five day BOD.
- (16) "Black Waste" means human body wastes including feces, urine, other extraneous substances of body origin and toilet paper.
- (17) "Capping Fill System" means an alternative system where the disposal trench effective sidewall is installed a minimum of twelve (12) inches into the natural soil below a soil cap of specified depth and texture.
- (18) "Cesspool" means a lined pit which receives raw sewage, allows separation of solids and liquids, retains the solids and allows liquids to seep into the surrounding soil through perforations in the lining.

- (19) "Chemical Recirculating Toilet Facility" means a toilet facility wherein black wastes are deposited and carried from the bowl by a combination of liquid waste and water which has been chemically treated and filtered.
- (20) "Chemical Toilet Facility" means a non-flushing, non-recirculating toilet facility wherein black wastes are deposited directly into a chamber containing a solution of water and chemical.
- (21) "Clayey Soil" means mineral soil that is over forty (40) percent clay that shrinks and develops wide cracks when dry and swells and shears when wet forming slickensides and wedge-shaped structure. Clayey soil is very hard or extremely hard when dry, very firm when moist, and very sticky and very plastic when wet.
- (22) "Claypan" means a dense, compact clay layer in the subsoil. It has a much higher clay content than the overlying soil horizon from which it is separated by an abrupt boundary. Claypans are hard when dry and very sticky and very plastic when wet. They impede movement of water and air and growth of plant roots.
- (23) "Combustion Toilet Facility" means a toilet facility wherein black wastes are deposited directly into a combination chamber for incineration.
- (24) "Commercial Facility" means any structure or building, or any portion thereof, other than a single-family dwelling.
- (25) "Commission" means the Environmental Quality Commission.
- (26) "Community System" means an on-site system which will serve more than one (1) lot or parcel or more than one (1) condominium unit or more than one (1) unit of a planned unit development.
- (27) "Completed Application" means one in which the application form is completed in full, is signed by the owner or that person's authorized representative, and is accompanied by all required exhibits and required fee.
- (28) "Conditions Associated With Saturation" means soil morphological properties that may indicate the presence of a water table that persists long enough to impair system function and create a potential health hazard. These conditions include:
  - (a) High chroma matrix with iron depletions. Soil horizons whose matrix chroma is 3 or more in which there are some visible iron depletions having a value 4 or more and a chroma of 2 or less. Iron-manganese concentrations as soft masses or pore linings may be present but are not diagnostic of conditions associated with saturation; or
  - (b) Depleted matrix with iron concentrations. Soil horizons whose matrix color has a value of 4 or more and a chroma of 2 or less as a result of removal of iron and manganese oxides, and that have some visible zones of iron concentration as soft masses or pore linings; or
  - (c) Depleted matrix without iron concentrations. Soil horizons whose color is more or less uniform with a value of 4 or more and a chroma of 2 or less as a result of removal of iron and manganese oxides. These horizons lack visible iron concentrations as soft masses or pore linings; or
  - (d) Reduced matrix. Soil horizons whose color has a value of 4 or more and a chroma of 2 or less with hues that are often, but not exclusively, on the gley pages of the Munsell Color Book. Upon exposure to air, yellow colors form within 24 hours as some of the ferrous iron oxidizes; or
  - (e) Dark colored organic soils. Either these soils are Histosols, or they are mineral soils that have Histic epipedons; or
  - (f) Salt-affected soils. Soils in arid and semi-arid areas that have visible accumulations of soluble salts at or near the ground surface; or
  - (g) Dark colored shrink-swell soils. These soils are Vertisols whose colors have values of 3 or less and chromas of 1 or less. Iron concentrations may be present but are not diagnostic of conditions associated with saturation.
- (29) "Confining Layer" means a layer associated with an aquifer that because of its low permeability does not allow water to move through it perceptibly under head differences occurring in the groundwater system.
- (30) "Construction" includes installation of a new system or part thereof, or the alteration, repair or extension of an existing system. The grading, excavating, and earth-moving work connected with installation, alteration, or repair of a system, or part thereof, is considered a part of system construction.
- (31) "Conventional Sand Filter" means a filter with two (2) feet or more of sand filter media designed to chemically and biologically process septic tank or other treatment unit effluent from a pressure distribution system operated on an intermittent basis.
- (32) "Curtain Drain" means a groundwater interceptor that is installed as a trench with a minimum width of twelve (12) inches and extending into the layer that limits effective soil depth. It has a perforated pipe installed along the bottom of, and the length of the trench and has a minimum of twelve (12) inches of drain media over the drainline and filter fabric placed over the drain media. The curtain drain must meet the setbacks from septic tanks and disposal areas as required in **Table 1**. [Table not included. See ED. NOTE.]
- (33) "Cut-Manmade" means a land surface resulting from mechanical land shaping operations where the modified slope is greater than fifty (50) percent, and the depth of cut exceeds thirty (30) inches.
- (34) "Department" means the Department of Environmental Quality.
- (35) "Design Criteria" means the criteria used in designing on-site sewage disposal systems including, but not necessarily limited to, dimensions, geometry, type of materials, size of drain media or filter media, disposal field sizing, depth, grade

or slope, hydraulic loading rate or any other factor relevant to the successful operation of the system. It does not include disposal area siting criteria.

- (36) "Director" means the Director of the Department of Environmental Quality.
- (37) "Disposal Area" means the entire area used for underground dispersion of the liquid portion of sewage including the area designated for the future replacement system. It may consist of a seepage pit or of a disposal field or of a combination of the two. It may also consist of a cesspool, seepage bed, bottomless sand filter, or evapotranspiration-absorption system.
- (38) "Disposal Field" means a system of disposal trenches or a seepage trench or system of seepage trenches.
- (39) "Disposal Trench" means a ditch or a trench installed into natural soil, permeable saprolite or diggable bedrock, with vertical sides and substantially flat bottom with a minimum of twelve (12) inches of clean, coarse drain media or other material that is used in these rules into which a single distribution pipe has been laid, the trench then being backfilled with a minimum of six (6) inches of soil.
- (40) "Distribution Box" means a watertight structure which receives septic tank or other treatment facility effluent and distributes it concurrently into two (2) or more header pipes leading to the disposal area. (See OAR 340-073-0035).
- (41) "Distribution Pipe" means an open-jointed or perforated pipe used in the dispersion of septic tank or other treatment facility effluent into disposal trenches, seepage trenches, or seepage beds.
- (42) "Distribution Unit" means a distribution box, dosing tank, diversion valve or box, header pipe, or other means of transmitting septic tank or other treatment unit effluent from the effluent sewer to the distribution pipes.
- (43) "Diversion Valve" means a watertight structure which receives septic tank or other treatment facility effluent through one (1) inlet, distributes it to two (2) outlets, only one (1) of which is utilized at a given time (See OAR 340-073-0045).
- (44) "Dosing Tank" means a watertight receptacle placed after a septic tank or other treatment facility equipped with an automatic siphon or pump.
- (45) "Dosing Septic Tank" means a unitized device performing functions of both a septic tank and a dosing tank.
- (46) "Drainfield" means a Disposal Field.
- (47) "Drain Media" means clean washed gravel, clean crushed rock, or other loose types of natural or synthetic aggregate approved by the Director, used in the distribution of effluent. It shall have a minimum size of three quarters (3/4) inches and a maximum size of two and one-half (2-1/2) inches. The material shall be durable and inert so that it will maintain its integrity and not collapse or disintegrate with time and shall not be detrimental to the performance of the system.
- (48) "Dwelling" means any structure or building, or any portion thereof which is used, intended, or designed to be occupied for human living purposes including, but not limited to: houses, houseboats, boathouses, mobile homes, travel trailers, hotels, motels, and apartments.
- (49) "Effective Seepage Area" means the sidewall area within a disposal trench or a seepage trench from the bottom of the trench to a level two (2) inches above the distribution pipes, or the sidewall area of any cesspool, seepage pit, unsealed earth pit privy, or gray water waste disposal sump seepage chamber; or the bottom area of a pressurized soil absorption facility installed in soil as defined in section (139) this rule.
- (50) "Effective Soil Depth" means the depth of soil material above a layer that impedes movement of water, air, and growth of plant roots. Layers that differ from overlying soil material enough to limit effective soil depth are hardpans, claypans, fragipans, compacted soil, bedrock, saprolite, and clayey soil.
- (51) "Effluent Filter" means an effluent treatment device installed on the outlet of a septic tank which is designed to prevent the passage of suspended matter larger than one-eighth inch in size.
- (52) "Effluent Lift Pump" means a pump used to lift septic tank or other treatment facility effluent to a higher elevation. (See OAR 340-073-0055).
- (53) "Effluent Sewer" means that part of the system of drainage piping that conveys partially treated sewage from a septic tank or other treatment facility into a distribution unit or an absorption facility. (See OAR 340-073-0060).
- (54) "Emergency Repair" means repair of a failing system where immediate action is necessary to relieve a situation in which sewage is backing up into a dwelling or building, or repair of a broken pressure sewer pipe. It does not include the construction of new or additional absorption facilities, but would allow use of the septic tank as a temporary holding tank until such time as new or additional absorption facilities could be constructed pursuant to an issued permit.
- (55) "Equal Distribution" means the distribution of effluent to a set of disposal trenches in which each trench receives effluent in equivalent or proportional volumes.
- (56) "Escarpment" means any naturally occurring slope greater than fifty (50) percent which extends vertically six (6) feet or more as measured from toe to top, and which is characterized by a long cliff or steep slope which separates two (2) or more comparatively level or gently sloping surfaces, and may intercept one (1) or more layers that limit effective soil depth.
- (57) "Evapotranspiration-Absorption (ETA) System" means an alternative system consisting of a septic tank or other treatment facility, effluent sewer and a disposal bed or disposal trenches, designed to distribute effluent for evaporation, transpiration by plants, and by absorption into the underlying soil.

OREGON ADMINISTRATIVE RULES  
Chapter 340, Division 71 - Department of Environmental Quality

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- (58) "Existing On-Site Sewage Disposal System" means any installed on-site sewage disposal system constructed in conformance with the rules, laws and local ordinances in effect at the time of construction, or which would have conformed substantially with system design provided for in Commission, State Board of Health or State Health Division rules.
- (59) "Existing System" means "Existing On-Site Sewage Disposal System."
- (60) "Failing System" means any system which discharges untreated or incompletely treated sewage or septic tank effluent directly or indirectly onto the ground surface or into public waters.
- (61) "Family Member" means any one (1) of two (2) or more persons related by blood or legally.
- (62) "Filter Fabric" means a woven or spun-bonded sheet material used to impede or prevent the movement of sand, silt and clay into drain media. A specification for filter fabric is found in OAR 340-073-0041.
- (63) "Five-Day Biochemical Oxygen Demand (BOD5)" means the quantity of oxygen used in the biochemical oxidation of organic matter in five days at twenty (20) degrees centigrade under specified conditions and reported as milligrams per liter (mg/L).
- (64) "Fragipan" means a loamy subsurface horizon with high bulk density relative to the horizon above, seemingly cemented when dry, and weakly to moderately brittle when moist. Fragipans are mottled and low in organic matter. They impede movement of water, air, and growth of plant roots.
- (65) "General Permit" means a permit issued to a category of qualifying sources pursuant to OAR 340-045-0033, in lieu of individual permits being issued to each source.
- (66) "Governmental Unit" means the state or any county, municipality, or political subdivision, or any agency thereof.
- (67) "Grade" means the rate of fall or drop in inches per foot or percentage of fall of a pipe.
- (68) "Gray Water" means household sewage other than "black wastes", such as bath water, kitchen waste water and laundry wastes.
- (69) "Gray Water Waste Disposal Sump" means a receptacle or series of receptacles designed to receive hand-carried gray water for disposal into the soil.
- (70) "Grease and Oils" means a component of sewage typically originating from food stuffs, consisting of compounds of alcohol or glycerol with fatty acids.
- (71) "Groundwater Interceptor" means any natural or artificial groundwater or surface water drainage system including agricultural drain tile, cut banks, and ditches which intercept and divert groundwater or surface water from the area of the absorption facility.
- (72) "Hardpan" means a hardened layer in soil caused by cementation of soil particles with either silica, calcium carbonate, magnesium carbonate, or iron and/or organic matter. The hardness does not change appreciably with changes in moisture content. Hardpans impede movement of water and air and growth of plant roots.
- (73) "Header Pipe" means a tight jointed part of the sewage drainage conduit which receives septic tank effluent from the distribution box, or drop box, or effluent sewer and conveys it to the disposal area.
- (74) "Headwall" means a steep slope at the head or upper end of a land slump block or unstable landform.
- (75) "Holding Tank" means a watertight receptacle designed to receive and store sewage to facilitate disposal at another location.
- (76) "Holding Tank System" means an alternative system consisting the combination of a holding tank, service riser and level indicator (alarm), designed to receive and store sewage for intermittent removal for disposal at another location.
- (77) "Hydrasplitter" means a hydraulic device to proportion flow under pressure by the use of one or more orifices. Also may be referred to as a Hydrosplitter.
- (78) "Incinerator Toilet Facility" means "Combustion Toilet Facility".
- (79) "Individual System" means a system that is not a community system.
- (80) "Individual Water Supply" means a source of water and a distribution system which serves a residence or user for the purpose of supplying water for drinking, culinary, or household uses and which is not a public water supply system.
- (81) "Industrial Waste" means any liquid, gaseous, radioactive, or solid waste substance or a combination thereof resulting from any process of industry, manufacturing, trade, or business, or from the development or recovery of any natural resources.
- (82) "Intermittent Sand Filter" means a conventional sand filter.
- (83) "Intermittent Stream" means any surface public water or groundwater interceptor that continuously flows water for a period of greater than two months in any one year, but not continuously for that year.
- (84) "Invert" is the lowest portion of the internal cross section of a pipe or fitting.
- (85) "Large System" means any on-site system with a projected daily sewage flow greater than two thousand five hundred (2,500) gallons.
- (86) "Lateral Pipe" means "Distribution Pipe."
- (87) "Mechanical Sewage Treatment Facility" means an aerobic sewage treatment facility.

- (88) "Nonwater-Carried Waste Disposal Facility" means any toilet facility which has no direct water connection, including pit privies, vault privies and portable toilets.
- (89) "Occupant" means any person living or sleeping in a dwelling.
- (90) "On-Site Sewage Disposal System" means any existing or proposed on-site sewage disposal system including, but not limited to a standard subsurface, alternative, experimental or nonwater-carried sewage disposal system, installed or proposed to be installed on land of the owner of the system or on other land as to which the owner of the system has the legal right to install the system. This does not include systems that are designed to treat and dispose of Industrial Waste as defined in OAR chapter 340, division 045.
- (91) "Operating Permit" means a WPCF permit issued pursuant to these rules.
- (92) "Owner" means any person who alone, or jointly, or severally with others:
- (a) Has legal title to any single lot, dwelling, dwelling unit, or commercial facility; or
  - (b) Has care, charge, or control of any real property as agent, executor, executrix, administrator, administratrix, trustee, commercial lessee, or guardian of the estate of the holder of legal title; or
  - (c) Is the contract purchaser of real property.
- NOTE:** Each such person as described in subsections (b) and (c) of this section, thus representing the legal title holder, is bound to comply with the provisions of these rules as if he were the legal title holder.
- (93) "Peer Review" means a review by members of a scientific community recognized as experts in the field of study and well rehearsed with scientific principles and experimentation. At a minimum, the review shall be performed by three members.
- (94) "Permanent Groundwater Table" means the upper surface of a saturated zone that exists year-round. The thickness of the saturated zone, and, as a result, the elevation of the permanent groundwater table may fluctuate as much as twenty (20) feet or more annually; but the saturated zone and associated permanent groundwater table will be present at some depth beneath land surface throughout the year.
- (95) "Permit" means the written document issued and signed by the Agent which authorizes the permittee to install a system or any part thereof, which may also require operation and maintenance of the system.
- (96) "Permit Action" means the issuance, modification, renewal or revocation by the Department or its agent of a permit.
- (97) "Person" includes individuals, corporations, associations, firms, partnerships, joint stock companies, public and municipal corporations, political subdivisions, the state and any agencies thereof, and the federal government and any agencies thereof.
- (98) "Pollution" or "Water Pollution" means such alteration of the physical, chemical or biological properties of any waters of the state, including change in temperature, taste, color, turbidity, silt or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the state, which will or tends to, either by itself or in connection with any other substance, create a public nuisance or which will or tends to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational or other legitimate beneficial uses or to livestock, wildlife, fish or other aquatic life or the habitat thereof.
- (99) "Portable Toilet" means any self contained chemical toilet facility that is housed within a portable toilet shelter and includes but is not limited to construction type chemical toilets.
- (100) "Portable Toilet Shelter" means any readily relocatable structure built to house a toilet facility.
- (101) "Pressure Distribution Lateral" means piping and fittings in pressure distribution systems which distribute septic tank or other treatment unit effluent to drain media through small diameter orifices.
- (102) "Pressure Distribution Manifold" means piping and fittings in a pressure distribution system which supply effluent from pressure transport piping to pressure distribution laterals.
- (103) "Pressure Distribution System" means any system designed to uniformly distribute septic tank or other treatment unit effluent under pressure in an absorption facility or sand filter.
- (104) "Pressure Transport Piping" means piping which conveys sewage effluent from a septic tank or other treatment or distribution unit by means of a pump or siphon.
- (105) "Pretreatment" means the wastewater treatment which takes place prior to discharging to any component of an on-site sewage treatment and disposal system, including but not limited to, pH adjustment, oil and grease removal, BOD5 and TSS reduction, screening and detoxification.
- (106) "Prior Approval" means a written approval for on-site sewage disposal, for a specific lot, issued prior to January 1, 1974.
- (107) "Prior Construction Permit" means a subsurface sewage disposal system construction permit issued prior to January 1, 1974, by a county that had an ordinance requiring construction permits for subsurface sewage disposal systems.
- (108) "Privy" means a structure used for disposal of human waste without the aid of water. It consists of a shelter built above a pit or vault in the ground into which human waste falls.

- (109) "Projected Daily Sewage Flow" means the peak quantity of sewage a facility is forecast to produce on a daily basis upon which system sizing and design is based. It may be referred to as design flow. The Projected Daily Sewage Flow allows for a safety margin and reserve capacity for the system during periods of heavy use.
- (110) "Public Health Hazard" means a condition whereby there are sufficient types and amounts of biological, chemical or physical, including radiological, agents relating to water or sewage which are likely to cause human illness, disorders or disability. These include, but are not limited to, pathogenic viruses, bacteria, parasites, toxic chemicals, and radioactive isotopes.
- (111) "Public Waters" means lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon, and all other bodies of surface or underground waters, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters which do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction.
- (112) "Recirculating Gravel Filter (RGF)" means a type of gravel filter wastewater treatment system which utilizes an effluent recycle system where a portion of the filtered effluent is mixed with septic tank effluent in a recirculation/dilution tank and redistributed to the filter, in conformance with these rules.
- (113) "Recirculating Gravel Filter System" means a Recirculating Gravel Filter and a absorption facility used to treat and dispose of sewage.
- (114) "Redundant Disposal Field System" means a system in which two complete disposal systems are installed, the disposal trenches of each system alternate with each other and only one system operates at a given time.
- (115) "Repair" means installation of all portions of a system necessary to eliminate a public health hazard or pollution of public waters created by a failing system. Major repair is defined as the replacement of the soil absorption system. Minor repair is defined as the replacement of a septic tank, broken pipe, or any part of the on-site sewage disposal system except the soil absorption system.
- (116) "Residential Strength Wastewater" means the primary sewage effluent from a septic tank which does not typically exceed the following parameters: Five-Day Biochemical Oxygen Demand (BOD5) of 300 mg/L; Total Suspended Solids (TSS) of 150 mg/L; Total Kjeldahl Nitrogen (TKN) of 150 mg/L; and Oil & Grease of 25 mg/L. Other contaminants may also be present in the wastewater, however, they shall not exceed the concentrations or quantities normally found in residential sewage. Effluent parameters are to be measured using approved Standard Method or EPA procedures.
- (117) "Sand Filter Media" means a medium sand or other approved material used in a conventional sand filter. The media shall be durable and inert so that it will maintain its integrity and not collapse or disintegrate with time and shall not be detrimental to the performance of the system. The particle size distribution of the media shall be determined through a sieve analysis conducted in accordance with **ASTM C-117** and **ASTM C-136**. The media shall comply with the following particle size distribution: 100 percent passing the 3/8 inch sieve, 95 percent to 100 percent passing the No. 4 sieve, 80 percent to 100 percent passing the No. 8 sieve, 45 percent to 85 percent passing the No. 16 sieve, 15 percent to 60 percent passing the No. 30 sieve, 3 percent to 15 percent passing the No. 50 sieve, and 4 percent or less passing the No. 100 sieve.
- (118) "Sand Filter Surface Area" means the area of the level plane section in the medium sand horizon of a conventional sand filter located two (2) feet below the bottom of the drain media containing the pressurized distribution piping.
- (119) "Sand Filter System" means the combination of septic tank or other treatment unit, dosing system with effluent pump and controls, or dosing siphon, piping and fittings, sand filter, and absorption facility used to treat and dispose of sewage.
- (120) "Sanitary Drainage System" means that part of the system of drainage piping that conveys untreated sewage from a building or structure to a septic tank or other treatment facility, service lateral at the curb or in the street or alley, or other disposal terminal holding human or domestic sewage. The sanitary drainage system consists of a building drain or building drain and building sewer.
- (121) "Saprolite" means weathered material underlying the soil that grades from soft thoroughly decomposed rock to rock that has been weathered sufficiently so that it can be broken in the hands or cut with a knife. It does not include hard bedrock or hard fractured bedrock. It has rock structure instead of soil structure.
- (122) "Saturated Zone" means a three (3) dimensional layer, lens, or other section of the subsurface in which all open spaces including joints, fractures, interstitial voids, pores, etc. are filled with groundwater. The thickness and extent of a saturated zone may vary seasonally or periodically in response to changes in the rate or amount of groundwater recharge or discharge.
- (123) "Scum" means a mass of sewage solids floating at the surface of sewage which is buoyed up by entrained gas, grease, or other substances.
- (124) "Seepage Area" means "Effective Seepage Area".
- (125) "Seepage Bed" means an absorption system having disposal trenches wider than three (3) feet.

- (126) "Seepage Pit" means a "cesspool" which has a treatment facility such as a septic tank ahead of it.
- (127) "Seepage Trench System" means a system with disposal trenches with more than six (6) inches of drain media below the distribution pipe.
- (128) "Self-Contained Nonwater-Carried Waste Disposal Facility" includes, but is not limited to, vault privies, chemical toilets, combustion toilets, recirculating toilets, and portable toilets, in which all waste is contained in a watertight receptacle.
- (129) "Septage" means the domestic liquid and solid sewage pumped from septic tanks, cesspools, holding tanks, vault toilets, chemical toilets or other similar domestic sewage treatment components or systems and other sewage sludge not derived at sewage treatment plants.
- (130) "Septic Tank" means a watertight receptacle which receives sewage from a sanitary drainage system, is designed to separate solids from liquids, digest organic matter during a period of detention, and allow the liquids to discharge to a second treatment unit or to a soil absorption facility. (See OAR 340-073-0025 and 340-073-0030).
- (131) "Septic Tank Effluent" means partially treated sewage which is discharged from a septic tank.
- (132) "Serial Distribution" means the distribution of effluent to a set of disposal trenches constructed at different elevations in which one (1) trench at a time receives effluent in consecutive order beginning with the uppermost trench, by means of a drop box, a serial overflow or other approved distribution unit. The effluent in an individual trench must reach a level of two (2) inches above the distribution pipe before effluent is distributed to the next lower trench.
- (133) "Sewage" means water-carried human and animal wastes, including kitchen, bath, and laundry wastes from residences, buildings, industrial establishments, or other places, together with such groundwater infiltration, surface waters, or industrial waste as may be present.
- (134) "Sewage Disposal Service" means:
- (a) The construction of on-site sewage disposal systems (including the placement of portable toilets), or any part thereof; or
  - (b) The pumping out or cleaning of on-site sewage disposal systems (including portable toilets), or any part thereof; or
  - (c) The disposal of material derived from the pumping out or cleaning of on-site sewage disposal systems (including portable toilets); or
  - (d) Grading, excavating, and earth-moving work connected with the operations described in subsection (a) of this section.
- (135) "Sewage Stabilization Pond" means a pond designed to receive the raw sewage flow from a dwelling or other building and retain that flow for treatment without discharge.
- (136) "Slope" means the rate of fall or drop in feet per one hundred (100) feet of the ground surface. It is expressed as percent of grade.
- (137) "Soil Permeability Rating" refers to that quality of the soil that enables it to transmit water or air, as outlined in the **United States Department of Agriculture Handbook, Number 18, entitled Soil Survey Manual**.
- (138) "Soil Separate" means the size of soil particles according to **Table 7**. [Table not included. See ED. NOTE.]
- (139) "Soil Texture" means the amount of each soil separate in a soil mixture. Field methods for judging the texture of a soil consist of forming a cast of soil, both dry and moist, in the hand and pressing a ball of moist soil between thumb and finger:
- (a) The major textural classifications are defined as follows. (See **Table 6** [Table not included. See ED. NOTE.]):
    - (A) Sand: Individual grains can be seen and felt readily. Squeezed in the hand when dry, this soil will fall apart when the pressure is released. Squeezed when moist, it will form a cast that will hold its shape when the pressure is released, but will crumble when touched;
    - (B) Loamy Sand: Consists primarily of sand, but has enough silt and clay to make it somewhat cohesive. The individual sand grains can readily be seen and felt. Squeezed when dry, the soil will form a cast which will readily fall apart, but if squeezed when moist, a cast can be formed that will withstand careful handling without breaking;
    - (C) Sandy Loam: Consists largely of sand, but has enough silt and clay present to give it a small amount of stability. Individual sand grains can be readily seen and felt. Squeezed in the hand when dry, this soil will readily fall apart when the pressure is released. Squeezed when moist, it forms a cast that will not only hold its shape when the pressure is released, but will withstand careful handling without breaking. The stability of the moist cast differentiates this soil from sand;
    - (D) Loam: Consists of an even mixture of the different sizes of sand and of silt and clay. It is easily crumbled when dry and has a slightly gritty, yet fairly smooth feel. It is slightly plastic. Squeezed in the hand when dry, it will form a cast that will withstand careful handling. The cast formed of moist soil can be handled freely without breaking;

- (E) Silt Loam: Consists of a moderate amount of fine grades of sand, a small amount of clay, and a large quantity of silt particles. Lumps in a dry, undisturbed state appear quite cloddy, but they can be pulverized readily; the soil then feels soft and floury. When wet, silt loam runs together in puddles. Either dry or moist, casts can be handled freely without breaking. When a ball of moist soil is passing between thumb and finger, it will not press out into a smooth, unbroken ribbon, but will have a broken appearance;
  - (F) Clay Loam: Consists of an even mixture of sand, silt, and clay, which breaks into clods or lumps when dry. When a ball of moist soil is pressed between the thumb and finger, it will form a thin ribbon that will readily break, barely sustaining its own weight. The moist soil is plastic and will form a cast that will withstand considerable handling;
  - (G) Silty Clay Loam: Consists of a moderate amount of clay, a large amount of silt, and a small amount of sand. It breaks into moderately hard clods or lumps when dry. When moist, a thin ribbon or one-eighth (1/8) inch wire can be formed between thumb and finger that will sustain its weight and will withstand gentle movement;
  - (H) Silty Clay: Consists of even amounts of silt and clay and very small amounts of sand. It breaks into hard clods or lumps when dry. When moist, a thin ribbon or one-eighth (1/8) inch or less sized wire formed between thumb and finger will withstand considerable movement and deformation;
  - (I) Clay: Consists of large amounts of clay and moderate to small amounts of sand. It breaks into very hard clods or lumps when dry. When moist, a thin, long ribbon or one-sixteenth (1/16) inch wire can be molded with ease. Fingerprints will show on the soil, and a dull to bright polish is made on the soil by a shovel.
- (b) These and other soil textural characteristics are also defined as shown in the United States Department of Agriculture Textural Classification Chart which is hereby adopted as part of these rules. This textural classification chart is based on the Standard Pipette Analysis as defined in the **United States Department of Agriculture, Soil Conservation Service Soil Survey Investigations Report No. 1**. (See **Table 6** [Table not included. See ED. NOTE.]).
- (140) "Soil With Rapid or Very Rapid Permeability" means:
- (a) Soil which contains thirty-five (35) percent or more of coarse fragments two (2) millimeters in diameter or larger by volume with interstitial soil of sandy loam texture or coarser as defined in subsection (138)(a) of this rule and as classified in Soil Textural Classification Chart, **Table 6**; or
  - (b) Coarse textured soil (loamy sand or sand as defined in section (138) of this rule and as classified in Soil Textural Classification Chart, **Table 6**); or
  - (c) Stones, cobbles, gravel, and rock fragments with too little soil material to fill interstices larger than one (1) millimeter in diameter.
- (141) "Split Waste Method" means a procedure where "black waste" sewage and "gray water" sewage from the same dwelling or building are disposed of by separate systems.
- (142) "Stabilized Dune" means a sand dune that is similar to an active dune except vegetative growth is dense enough to prevent blowing of sand. The surface horizon is either covered by a mat of decomposed and partially decomposed leaves, needles, roots, twigs, moss, etc., or to a depth of at least six (6) inches contains roots and has a color value of three (3) or less.
- (143) "Standard Subsurface System" means an on-site sewage disposal system consisting of a septic tank, distribution unit and absorption facility constructed in accordance with OAR 340-071-0220, using six (6) inches of drain media below the distribution pipe, and maintaining not less than eight (8) feet of undisturbed earth between disposal trenches.
- (144) "Steep Slope System" means a seepage trench system installed on slopes greater than thirty (30) percent and less than or equal to forty-five (45) percent, pursuant to these rules.
- (145) "Subsurface Sewage Disposal" means the physical, chemical or bacteriological breakdown and aerobic treatment of sewage in the unsaturated zone of the soil above any temporarily perched groundwater body.
- (146) "Subsurface Disposal System" means a cesspool or the combination of a septic tank or other treatment unit and effluent sewer and absorption facility.
- (147) "Surface Waters" means public waters, but excludes underground waters and wells.
- (148) "System" means "On-Site Sewage Disposal System".
- (149) "Temporary Groundwater Table" means the upper surface of a saturated zone that exists only on a seasonal or periodic basis. Like a permanent groundwater table, the elevation of a temporary groundwater table may fluctuate. However, a temporary groundwater table and associated saturated zone will dissipate (dry up) for a period of time each year.
- (150) "Test Pit" means an open pit dug to sufficient size and depth to permit thorough examination of the soil to evaluate its suitability for subsurface sewage disposal.
- (151) "Third-Party" means a consulting firm, research institute, academic institute, or other similar entities with no vested interest in the outcome of test results of a material or technology under performance evaluation.



- (152) "Tile Dewatering System" means an alternative system in which the absorption facility is encompassed with field collection drainage tile, the purpose of which is to reduce and control a groundwater table to create a zone of aeration below the bottom of the absorption facility.
- (153) "Toilet Facility" means a fixture housed within a toilet room or shelter for the purpose of receiving black waste.
- (154) "Total Kjeldahl Nitrogen (TKN)" means the combination of ammonia and organic nitrogen but does not include nitrate and nitrite nitrogen.
- (155) "Total Suspended Solids" (TSS) means solids in sewage that can be removed readily by standard filtering procedures in a laboratory and reported as milligrams per liter (mg/L).
- (156) "Treatment" means the alteration of the quality of wastewaters by physical, chemical or biological means or combination thereof such that tendency of said wastes to cause degradation in water quality, risk to public health or degradation of environmental conditions is reduced.
- (157) "Underdrain Media" means that material placed under the sand filter media in a sand filter. It shall be clean, washed pea gravel with 100 percent passing the 1/2 inch sieve, 18 to 100 percent passing the 1/4 inch sieve, 5 to 75 percent passing the No. 4 sieve, 24 percent or less passing the No. 10 sieve, 2 percent or less passing the No. 16 sieve, and 1 percent or less passing the No. 100 sieve.
- (158) "Unstable Landforms" means areas showing evidence of mass downslope movement such as debris flow, landslides, rockfall, and hummock hill slopes with undrained depressions upslope. Unstable landforms may exhibit slip surfaces roughly parallel to the hillside; landslide scars and curving debris ridges; fences, trees, and telephone poles which appear tilted; or tree trunks which bend uniformly as they enter the ground. Active sand dunes are unstable landforms.
- (159) "Vertisols" means a mineral soil characterized by a high content of swelling-type clays which in dry seasons, causes the soils to develop deep wide cracks.
- (160) "WPCF Permit" means a Water Pollution Control Facilities Permit which has been issued pursuant to OAR chapter 340, division 045 and OAR 340-071-0162.
- (161) "Wastewater" means Sewage.
- (162) "Zone of Aeration" means the unsaturated zone that occurs below the ground surface and above the point at which the upper limit of the water table exists.

[ED. NOTE: The Tables referenced in this rule are not printed in the OAR Compilation. Copies are available from the agency.]

[Publications: The publication(s) referenced in this rule are available from the agency.]

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.605 & ORS 454.615

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 5-1982, f. & ef. 3-9-82; DEQ 8-1983, f. & ef. 5-25-83; DEQ 15-1986, f. & ef. 8-6-86; DEQ 6-1988, f. & cert. ef. 3-17-88; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95; DEQ 12-1997, f. & cert. ef. 6-19-97; DEQ 16-1999, f. & cert. ef. 12-29-99; DEQ 15-2000, f. & cert. ef. 10-11-00

### **340-071-0110**

#### **Purpose**

These rules, adopted pursuant to ORS 454.625 and ORS 468.020, prescribe the requirements for the construction, alteration, repair, operation, and maintenance of on-site sewage disposal systems. Their purpose is to restore and maintain the quality of public waters and to protect the public health and general welfare of the people of the State of Oregon.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.605 - ORS 454.780

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

### **340-071-0115**

#### **Technical Review Committee**

The Director shall form an on-site sewage disposal Technical Review Committee (TRC) to assist the Department in implementing the on-site sewage program.

(1) Purpose. The purpose of the TRC shall be:

- (a) To advise and assist the Department in implementing the on-site sewage program, including rule implementation problems and the need for changes in the program and rules;
- (b) To review and advise the Department on the use of new or innovative technologies, materials or designs that maintain or advance protection of the quality of public waters of the State and the public health and general welfare. The TRC may utilize performance standards and criteria as appropriate to evaluate the efficiency and safety of new technologies, materials or designs.

- (2) Committee Composition and Term. The TRC shall consist of 9 persons who shall be appointed by and serve at the pleasure of the Director. They shall be appointed for 3 year staggered terms. The TRC may include on-site sewage disposal experts from local government, DEQ, equipment manufacturers, consultants, installers and pumpers, and other appropriate persons or groups.
  - (3) Meeting Frequency. The TRC shall meet as necessary, but at least two times per year. The Department shall reimburse members for reasonable expenses in accordance with Department policy.
  - (4) Chair. The Chair of the TRC shall be appointed by the Director for a term determined by the Director.
  - (5) Staffing. The Department shall provide the necessary technical, engineering and clerical staff and services in order for the TRC to fulfill its responsibilities in a timely, professional, informed and responsible manner.
- Stat. Auth.: ORS 454.625 & ORS 468.020  
Stats. Implemented: ORS 454.775  
Hist.: DEQ 27-1994, f.& cert. ef. 11-15-94

### **340-071-0116**

#### **Standards for On-Site Sewage Disposal Systems**

- (1) The Environmental Quality Commission has established standards within OAR chapter 340, divisions 071 and 073, for on-site sewage disposal systems, including the materials used to construct them. Any new or innovative technology or materials to be used in systems within the State of Oregon that differ from the standards described in OAR chapter 340, divisions 071 and 073, may be reviewed by the Technical Review Committee, consistent with the provisions in sections 2 through 5 of this rule. After consideration of the TRC's advice, the Department may recommend that the Director grant approval, consistent with OAR 340-071-0130(2). The Department shall require convincing documentation of performance as provided in sections (2) and (3) of this rule, or compliance with the prescriptive standard option as provided in sections (4) and (5) of this rule, before recommending a new or innovative technology or material for general use.
- (2) Performance evaluation of new or innovative technology or materials. Performance is the preferred standard by which new or innovative technologies and materials are evaluated in the State of Oregon. With respect to new or innovative technology or material proposed for use as a substitute for drain media, performance may also be established by a demonstration of functional equivalency to a material that is approved pursuant to provisions in OAR 340-071-0130(2)(a) on or after September 1, 2000. Performance is established when the Department determines the criteria described in subsections (a) through (e) of this section are met:
  - (a) Peer-reviewed, third party documentation, usually obtained by field studies, that have produced data that is scientifically defensible and have sufficient replications to be representative. The data must clearly document the manufacturer's claim as to the performance of the product.
  - (b) The field studies shall have relevancy to the field conditions encountered within the State of Oregon, such as soil-type and climate, before the Department may recommend the technology or material for statewide use. If the studies are only partly relevant to Oregon field conditions, the Department may limit its recommendation of the technology or material to locations with similar field conditions.
  - (c) The field studies shall include a control that represents the applicable prescriptive standards within OAR chapter 340, divisions 071 and 073, against which the new technology or material is evaluated.
  - (d) The studies shall clearly define objectives and variables being considered. Objectives shall include performance standards sought. Variables shall include climate, soil, waste characteristics such as flow and strength, and topography.
  - (e) The field studies shall be sufficient to address system operations at maturity and any temporal variabilities.
- (3) Supplemental to the requirements described in section (2) of this rule, field studies conducted to demonstrate equivalent or better performance of material used as a substitute for drain media shall have been conducted substantially in conformance with the testing protocol described in OAR 340-071-0117, or an alternative protocol that includes a schedule indicating onset and completion date of the study, has scientific merit and has a reasonable expectation to provide conclusions necessary for Department determination of approval or denial.
- (4) Prescriptive standard option. The applicable standards within OAR chapter 340, divisions 071 and 073, shall be the prescriptive standards new or innovative technology or materials are evaluated against. Supplemental criteria may be developed by the Department if it determines the applicable standards within OAR Chapter 340, Divisions 071 and 073 are insufficient. A prescriptive standard option for material used as a substitute for drain media is prescribed in section (5) of this rule.
- (5) Prescriptive standard option for material used as a substitute for drain media. The Department may recommend for approval proposed new or innovative materials intended to be used within disposal trenches (including seepage trenches), seepage beds or other similar absorption facilities by evaluating the following criteria:

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- (a) The new or innovative materials shall be structurally sound, durable and inert within the environment they are placed. The substitute material shall be capable of passing wastewater towards the infiltrative surfaces at a rate equal to or greater than drain media.
- (b) Disposal trench:
  - (A) The trench shall be excavated in conformance with the trench standards described in OAR Chapter 340, Division 071. However, due to the design configuration of the substitute material for drain media, the trench width may be less than 24 inches wide provided the trench length is increased to compensate for the loss of the bottom surface area using the following formula: [Formula not included. See ED. NOTE.]
  - (B) The substitute material for the drain media shall be placed within the trench, and be in uniform contact with the trench bottom and both sidewalls. If voids larger than typically found with the use of drain media are present along the trench bottom after placement of the substitute material, methods to prevent the entry of burrowing rodents shall be required. If the substitute material for drain media is not in uniform contact with both sidewalls, drain media shall be placed within the trench so as to provide that contact;
  - (C) The substitute material for drain media shall be placed so as to provide a uniform sidewall infiltrative surface depth as measured along the trench sidewall from the bottom to the top of the drain media substitute in contact with the sidewall. In seepage trenches, the depth of the substitute material for drain media shall be greater than 12 inches. If the substitute material for drain media provides less than 12 inches of sidewall contact depth, either drain media must be placed to accomplish the minimum sidewall contact depth, or the length of the disposal trench shall be increased to compensate for the reduced sidewall seepage area depth using the following formula: [Formula not included. See ED. NOTE.]
  - (D) If a substitute material is used in the trench that is both narrower than 24 inches and has a sidewall contact depth that is less than 12 inches, then the adjusted trench length shall be the longer of the adjusted trench lengths calculated using the formulae within paragraphs (A) and (C) of this subsection.
  - (E) The top surface of the substitute material for the drain media shall be level across the trench and be in contact with each side of the trench. The substitute material for drain media shall have porosity at the top surface that is not appreciably different from the porosity of drain media. Drain media may be placed across the top of the substitute material to provide the level surface extending from sidewall to sidewall.
  - (F) The sizing criteria for standard disposal trenches using a substitute material for drain media shall conform to OAR 340-071-0220(2), 340-071-0290(4), or 340-071-0360(2)(a). Seepage trenches using a substitute material for drain media shall be sized in conformance with OAR 340-071-0280(2), 340-071-0290(4), 340-071-0310(2) or 340-071-0360(2)(b).
- (c) ETA beds, seepage beds:
  - (A) Beds shall be excavated in conformance with the standards described in OAR 340-071-0270(2) or 340-071-0275(4)(d);
  - (B) The substitute material for drain media shall be placed within the excavation, and be in contact with the bottom and sidewalls of the bed. If voids larger than typically found with the use of drain media are present along the bottom or sidewalls after placement of the substitute material, methods to prevent the entry of burrowing rodents may be required;
  - (C) The substitute material for drain media shall be placed so as to provide a substitute material depth of at least 12 inches, as measured from the bottom of the excavation to the top of the drain media substitute. If the depth of the media substitute is less than 12 inches, drain media may be placed within the excavation to provide this depth.
  - (D) The upper surface of the substitute material for drain media shall be level from sidewall to sidewall. The porosity of the top surface of the substitute material shall not appreciably differ from the porosity of drain media. Drain media may be placed across the top of the substitute material to provide the level surface extending from sidewall to sidewall.
  - (E) The sizing criteria for ETA beds that contain a substitute material for drain media shall be as specified in OAR 340-071-0270(2). Seepage beds using a substitute material for drain media shall be sized in conformance to OAR 340-071-0275(4)(d)(B).
- (d) Distribution piping that is present in absorption facilities using a substitute material for drain media shall comply with the appropriate pipe standards within OAR chapter 340, division 071 and OAR 340-073-0060.

[ED. NOTE: The Formula referenced in this rule is not printed in the OAR Compilation. Copies are available from the agency.]

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615, ORS 454.775, ORS 468.035 & ORS 468.045

Hist.: DEQ 16-1999, f. & cert. ef. 12-29-99; DEQ 14-2000, f. & cert. ef. 8-24-00

### 340-071-0117

#### Performance Evaluation Process

The Department may consider new or innovative technology or materials for use in on-site systems through a performance evaluation process that is technically justifiable, that has been peer reviewed and agreed upon and is acceptable to the Department, or through the WPCF permit process. The results of the performance evaluation shall be used to determine approval, conditions of approval or denial of the technology or material. Where the WPCF permit process is used, an application must be submitted pursuant to OAR 340-071-0162. Through this permit, a performance history may be established through a field study to demonstrate comparable or equivalent performance to Oregon's prescriptive standards. Compliance with the following criteria is required:

- (1) Theoretical basis. There is a theoretical basis for the innovative technology or material and its intended use;
- (2) Test protocol. A testing protocol proposed by the applicant and agreed upon by the Department shall be established. The protocol shall clearly define performance objectives, performance measurements to validate attainment of the objectives, and variables for limited or statewide use.
- (3) Duration. The evaluation shall be for a period of time sufficient to attain equilibrium for comparison to Oregon standards.
- (4) Replication. The number of installations must be sufficient to include replication of study sites and to address applicable variations in climate, soil, topography, waste loading and strength.
- (5) Consultant. The applicant shall retain a qualified consultant (which may include, but need not be limited to, an academic or research institute) to design the study, perform the verification of site evaluation, certification of installation and the monitoring and recording of the systems to be evaluated. The consultant must be acceptable to the Department. The Department shall be allowed to monitor the systems as needed throughout the evaluation period.
- (6) Siting. No reduction of the siting criteria described in OAR Chapter 340, Division 071, shall be allowed. A site evaluation shall be conducted in accordance with OAR 340, Division 071, for each system installation. There shall be sufficient suitable area available for installation of both an initial on-site system as well as a full replacement on-site system. Written verification from the consultant that the site conditions are appropriate for the new or innovative technology or materials shall be submitted to the Department. The field study shall not commence until the WPCF permit is issued.
- (7) Construction/installation. The applicant shall select a licensed sewage disposal service business to install each system. There shall be at least one pre-cover inspection conducted by both the Department and the consultant. Upon completion of construction, the applicant and system installer shall provide written certification that the system was installed correctly.
- (8) Monitoring and reporting. The test product and the control product will be monitored and data recorded and reported to the Department in a manner that will allow for direct comparisons to Oregon standards.
- (9) Final report. The applicant shall submit a final report to the Department for review and consideration. Technologies and materials whose performance has been satisfactorily substantiated through the field study may be authorized for a broader use in Oregon.
- (10) Supplemental to sections 1 through 9 of this rule, a field study involving a substitute material for drain media shall include the following:
  - (a) A standard on-site system shall be installed and sized according to **Tables 4 and 5** of OAR Chapter 340, Division 071, for a given soil group. [Table not included. See ED. NOTE.] The system shall be designed so as to allow a side-by-side performance comparison of the material with a standard Oregon disposal trench (the control). For this purpose, the drainfield shall contain four (4) small test cells (two (2) cells shall contain the substitute material and two (2) cells shall contain drain media) that receive septic tank effluent prior to the remaining portion of the drainfield. The test cells shall represent approximately 1/3 of the total drainfield. The cells containing the substitute material shall be sized according to the manufacturer's claim for equivalence to the standard trench length.
  - (b) A drop box (or similar monitoring box containing a sump) shall be placed at the end of each test cell. All drop boxes shall be connected to the remaining portion of the drainfield.
  - (c) The test cells shall be fed by a pump and a hydrosplitter so as to proportion the effluent equally to each test cell. Installation of a water meter or pump cycle-counter may be required.
  - (d) Observation ports shall be installed in each test cell to allow measurement and recording of the effluent ponding depth.
  - (e) Domestic wastewater coming directly from a septic tank connected to a residence shall be used in the field study.
  - (f) The performance standard to be tested is the acceptance rate of the effluent by the substitute material, measured by observing the time for each test cell in the study to overflow to the drop box.

- (g) The test shall conclude at the end of three (3) years, or when overflow is observed in either pair of substitute material or control test cells, whichever occurs first. Minimum observation frequency shall be monthly. Recordings to be made are overflow or no overflow, and depth of ponding.
- (h) The testing described in this section shall be duplicated at other sites within western and eastern Oregon, with different climatic regimes, and in each of the soil groups described in OAR Chapter 340, Division 071, **Tables 4 and 5**. [Table not included. See ED. NOTE.] The number of duplicated sites shall be a minimum of 18; three sites in each of three soil groups within the two major climatic regimes of Oregon (West of the Cascade Mountain Range and East of the Cascade Mountain Range). The applicant may provide any number of additional sites.

[ED. NOTE: The Table(s) referenced in this rule is not printed in the OAR Compilation. Copies are available from the agency.]

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615, ORS 454.775, ORS 468.035, ORS 468.065, & ORS 468B.050

Hist.: DEQ 16-1999, f. & cert. ef. 12-29-99

### **340-071-0120**

#### **Jurisdiction and Policy**

- (1) Oregon Revised Statutes (ORS) 454.725 authorizes the Department to enter into agreements with local governmental units for those units to perform the duties of the Department and become the Department's Agent in the permitting of on-site sewage disposal systems, including receiving and processing applications, issuing permits and performing required inspections for all on-site systems. The Department shall assume those responsibilities in nonagreement counties. The division of responsibilities is set forth as follows:
  - (a) Systems conforming with the treatment and disposal criteria described in this division, and which are not required to have a WPCF Permit shall have site evaluations, plan reviews, permits and inspections conducted or processed by the Agent, unless otherwise allowed within this division;
  - (b) All systems required to have a WPCF Permit shall be regulated by the Department. OAR 340-071-0130(15) and (16) describe those systems which must be constructed and operated by WPCF Permit. The WPCF permitting process is described in OAR 340-071-0162. The Department may issue General Permits for some of the categories requiring WPCF Permits. The Department may, through intergovernmental agreements, delegate to the Agent site evaluations, construction inspections, receipt of registration applications and distribution of the Department's General Permit, and periodic compliance inspections. Although the Agent may solicit voluntary compliance with the Department's General Permit, ultimate enforcement responsibility shall remain with the Department. The agreement shall establish a level of compensation to be paid for the services provided.
- (2) Each and every owner of real property is jointly and severally responsible for:
  - (a) Disposing of sewage on that property in conformance with the rules of the Department; and
  - (b) Connecting all plumbing fixtures on that property, from which sewage is or may be discharged, to a sewerage facility or on-site sewage disposal system approved by the Department; and
  - (c) Maintaining, repairing, and/or replacing the system as necessary to assure proper operation of the system.
- (3) The Department may, on its own or through agreements with local governments, conduct a pilot program (not to exceed two (2) years), utilizing private contractors. To the extent consistent with ORS Chapter 454, and other applicable statutes, the pilot program may allow private contractors to perform the technical review necessary for the issuance of on-site sewage disposal installation permits, Certificates of Satisfactory Completion or other related on-site activities. In all instances, the private contractor's technical review shall be submitted to the Agent for the Agent's review and acceptance or denial. The private contractors must comply with state registration acts which may require registration for people performing these activities. The Department or Agent may consider the enforcement history and criminal record of a person proposing to enter into an agreement under this Section. At the end of the pilot program the Department shall report to the Commission with its findings and recommendations. After the Departments report, the Commission may extend the pilot program for any duration, but shall provide for periodic review of the program.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615, ORS 454.655, ORS 454.665, ORS 454.725 & ORS 454.755

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 5-1982, f. & ef. 3-9-82; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95; DEQ 12-1997, f. & cert. ef. 6-19-97

### **340-071-0130**

#### **General Standards, Prohibitions and Requirements**

- (1) Public Waters or Public Health Hazards. If, in the judgment of the Agent, proposed operation of a system would cause pollution of public waters or create a public health hazard, system installation or use shall not be authorized. If, in the

judgment of the Agent, the minimum standards contained in these rules do not afford adequate protection of public waters or public health, the requirements shall be more stringent. This may include, but is not limited to, increasing setbacks, increasing drainfield sizing and/or utilizing an Alternative System. If the Agent imposes requirements more stringent than the minimum, the Agent shall provide the applicant with a written statement of the specific reasons why the requirements are necessary.

(2) Approved Disposal Required.

(a) All sewage shall be treated and disposed of in a manner approved by the Department. After review by the Technical Review Committee and by the Department, the Director may approve the use of new or innovative technologies, materials, or designs that differ from those specified within this division and OAR chapter 340, division 73, if such technologies, materials, or designs provide equivalent or better protection of the public health and safety and waters of the State and meet the purposes of this division and OAR chapter 340, division 073, including the purposes stated in OAR 340-071-0110. The Director may amend or repeal an approval granted pursuant to this section. The Department may determine that the appropriate method of approving Alternative Systems is by rule amendment.

(b) On December 31, 2002, each approval for new or innovative technology or material that was granted by the Director prior to July 1, 1999, shall expire unless the new or innovative technology or material:

(A) Is found to be in conformance with the prescriptive standard option described in OAR 340-071-0116(4) and (5);  
or

(B) Meets such performance criteria for the standard disposal trench as may be established by rule; or

(C) Is in the process of an evaluation in conformance with the testing or performance protocol and schedule described in OAR 340-071-0116(3), or meets the requirements set forth in OAR 340-071-0116(1). At the conclusion of the evaluation, which shall not exceed three years, the Director may approve the new or innovative technology or material if it has demonstrated equivalent or better performance to the standard disposal trench currently approved in Oregon. While engaged in the evaluation, materials with a current approval from the Director for use as a drain media substitute may be allowed through a construction-installation permit: During the evaluation under (2)(b)(C), the Department may allow the trench length to be reduced according to the appropriate manufacturer's recommendation, provided the following conditions are met:

(i) The manufacturer provides a written warranty acceptable to the Department that provides for repair or replacement if the material is found to be defective or contributes wholly or in part to a failure of the absorption facility;

(ii) The manufacturer, installer or property owner provides a bond or other security acceptable to the Department, assuring the repair or replacement of the absorption facility that the Department finds to be defective or to be contributing to the failure of the facility. The amount of the bond or security shall be based on the projected number of systems installed during the evaluation period at \$2,500 per system. The bond or security must be maintained for five years, or until the drain media substitute as installed has been approved as provided in subsection (2)(a) of this rule, or until the system is decommissioned, whichever is sooner;

(iii) The property with a system proposed to be installed at the appropriate manufacturer's recommended sizing, must have sufficient area available to accommodate an initial and replacement system at a size that would otherwise be required by these rules.

(3) Discharge of Sewage Prohibited. Discharge of untreated or partially treated sewage or septic tank effluent directly or indirectly onto the ground surface or into public waters constitutes a public health hazard and is prohibited.

(4) Discharges Prohibited. No cooling water, air conditioning water, water softener brine, groundwater, oil, hazardous materials, roof drainage, or other aqueous or non-aqueous substances which are, in the judgment of the Department, detrimental to the performance of the system or to groundwater, shall be discharged into any system.

(5) Increased Flows Prohibited. Except where specifically allowed within this division, no person shall connect a dwelling or commercial facility to a system if the total projected sewage flow would be greater than that allowed under the original system construction permit.

(6) System Capacity. Each system shall have adequate capacity to properly treat and dispose of the maximum projected daily sewage flow. The quantity of sewage shall be determined from **Table 2** or other information the Agent determines to be valid that may show different flows.

(7) Material Standards. All materials used in on-site systems shall comply with standards set forth in these rules.

(8) Encumbrances. A permit to install a new system can be issued only if each site has received an approved site evaluation (OAR 340-071-0150) and is free of encumbrances (i.e., easements, deed restrictions, etc.) which could prevent the installation or operation of the system from being in conformance with the rules of this division.

- (9) Future Connection to Sewerage System. In areas where a district has been formed to provide sewerage facilities, placement of house plumbing to facilitate connection to the sewerage system shall be encouraged.
- (10) Plumbing Fixtures Shall be Connected. All plumbing fixtures in dwellings and commercial facilities from which sewage is or may be discharged, shall be connected to, and shall discharge into an approved area wide sewerage system, or an approved on-site system which is not failing.
- (11) Property Line Crossed:
- (a) A recorded utility easement and covenant against conflicting uses, on a form approved by the Department, is required whenever a system crosses a property line separating properties under different ownership. The easement must accommodate that part of the system, including setbacks, which lies beyond the property line, and must allow entry to install, maintain and repair the system;
  - (b) Whenever an on-site system is located on one lot or parcel and the facility it serves is on another lot or parcel under the same ownership, the owner shall execute and record in the county land title records, on a form approved by the Department, an easement and a covenant in favor of the State of Oregon:
    - (A) Allowing its officers, agents, employees and representatives to enter and inspect, including by excavation, that portion of the system, including setbacks, on the other lot or parcel; and
    - (B) Agreeing not to put that portion of the other lot or parcel to a conflicting use; and
    - (C) Agreeing that upon severance of the lots or parcels, to grant or reserve and record a utility easement, in a form approved by the Department, in favor of the owner of the lot or parcel served by the system.
- (12) Disposal and Replacement Area. Except as provided in specific rules, the disposal area, including installed system and replacement area shall not be subject to activity that would, in the opinion of the Agent, adversely affect the soil or the functioning of the system. This may include, but is not limited to, vehicular traffic, covering the area with asphalt or concrete, filling, cutting, or other soil modification.
- (13) Operation and Maintenance. All systems shall be operated and maintained so as not to create a public health hazard or cause water pollution. Those facilities specified in sections (15) or (16) of this rule as requiring a WPCF permit shall have operation and maintenance requirements established in the permit.
- (14) Construction. The Department or Agent may limit the time period a system can be constructed due to soil conditions, weather, groundwater, or other conditions which could affect the reliability of the system.
- (15) Operating Permit Requirements. The following systems shall be constructed and operated under a renewable WPCF permit, issued pursuant to OAR 340-071-0162:
- (a) Any system or combination of systems located on the same property or serving the same facility with a total sewage flow design capacity greater than 2,500 gallons per day. Flows from single family residences or equivalent flows on separate systems need not be included;
  - (b) A system of any size, if the sewage produced is greater than residential strength wastewater;
  - (c) Holding tanks;
- EXCEPTIONS:** This requirement does not apply to septic tanks used as temporary holding tanks pursuant to OAR 340-071-0160(11), or to holding tanks described in OAR 340-071-0340(5).
- (d) A system which includes a conventional sand filter as part of the treatment process that serves a commercial facility;
  - (e) A system which includes an aerobic treatment facility as part of the treatment process if:
    - (A) The system serves a commercial facility; or
    - (B) The system does not meet the requirements of OAR 340-071-0220 and 340-071-0345.
  - (f) Recirculating Gravel Filters (RGFs);
  - (g) Other systems that are not described in this division, that do not discharge to surface public waters.
- (16) WPCF Permits for Existing Facilities:
- (a) Owners of existing systems meeting the system descriptions in subsections (15)(a), (b), and (d) through (g) of this rule are not required to apply for a WPCF permit until such time as a system repair, or alteration is necessary;
  - (b) All owners of existing holding tanks installed under a construction-installation permit issued pursuant to these rules, except holding tanks described in OAR 340-071-0340(5) and septic tanks used as temporary holding tanks pursuant to OAR 340-071-0160(11), shall make application for a WPCF permit by September 30, 1998. The application filing fee and the annual compliance determination fee listed in OAR 340-071-0140(5) shall be submitted with the application. Applications submitted on or after October 1, 1998, shall include all applicable fees established in OAR 340-071-0140.
- (17) Perpetual Surety Bond Requirements. Pursuant to Oregon Revised Statutes (ORS) 454.425 and OAR chapter 340, division 015, a perpetual surety bond, or approved alternate security, in the amount of \$1.00 per gallon per day installed sewage disposal capacity, shall be filed with the Department by any person proposing to construct or operate facilities for the collection, treatment, or disposal of sewage with a design capacity of 5,000 gallons per day or more.
- (a) Exemptions from the Surety Bond Requirements:

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- (A) Systems serving only food handling establishments, travel trailer accommodations, tourist and travelers facilities, or other development operated by a public entity or under license issued by the State Health Division. (Systems which serve both licensed facilities and unlicensed facilities require a surety bond if the portion requiring a Health Division license has a design capacity of 5,000 gallons per day or more);
  - (B) Systems owned and operated by a state or federal agency, city, county service district, sanitary authority, sanitary district, or other public body;
  - (C) Systems serving the sewerage needs of industrial or commercial operations where there are no permanent residences.
- (b) Alternate Security: The approved forms of alternate security are specified in OAR 340-015-0020.
- (18) Fees for WPCF Permits. The fees required to be filed with WPCF permit applications and to be paid annually for WPCF permit compliance determination are outlined in OAR 340-071-0140(5).
- (19) Variances for WPCF Permits. The variance procedures established in this division do not apply to systems permitted by WPCF Permit.
- (20) Engineering Plan Review. Pursuant to ORS 468B.055, unless specifically exempted by rule, all plans and specifications for the construction, installation or modification of disposal systems, shall be submitted to the Department for its approval or denial pursuant to rules of the Commission. The design criteria and rules governing the plan review are as follows:
- (a) For on-site systems which do not require a WPCF permit, the rules and design criteria for construction are found in this division. Construction standards for certain manufactured items are found in OAR chapter 340, division 073;
  - (b) For on-site systems which require a WPCF permit, the criteria in this division shall be used. However, the Department may allow variations of the criteria and/or technologies, when the applicant or Department has adequate documentation of successful operation of that technology or design. The burden of proof for demonstrating new processes, treatment systems, and technologies that the Department is unfamiliar with, lies with the system designer. The Department shall review all plans and specifications for WPCF permits pursuant to procedures and requirements outlined in OAR chapter 340, division 052.
- (21) Manufacturer's Specifications. All materials and equipment, including but not limited to tanks, pipe, fittings, solvents, pumps, controls, valves, etc. shall be installed, constructed, operated, and maintained in accordance with manufacturer's minimum specifications.
- (22) Sewer and Water Lines. Effluent sewer and water line piping which is constructed of materials which are approved for use within a building, as defined by the current Oregon State Plumbing Specialty Code, may be run in the same trench. Where the effluent sewer pipe is of material not approved for use in a building, it shall not be run or laid in the same trench as water pipe unless both of the following conditions are met:
- (a) The bottom of the water pipe at all points shall be set at least 12 inches above the top of the sewer pipe;
  - (b) The water pipe shall be placed on a solid shelf excavated at one side of the common trench with a minimum clear horizontal distance of at least 12 inches from the sewer pipe.
- (23) Septage Disposal. No person shall dispose of sewage, septage (septic tank pumpings), or sewage contaminated materials in any location not authorized by the Department under applicable laws and rules for such disposal.
- (24) Groundwater Levels. All groundwater levels shall be predicted using "Conditions Associated with Saturation" as defined in OAR 340-071-0100. In areas where conditions associated with saturation do not occur or are inconclusive, such as in soil with rapid or very rapid permeability, predictions of the high level of the water table shall be based on past recorded observations of the Agent. If such observations have not been made, or are inconclusive, the application shall be denied until observations can be made. Groundwater level determinations shall be made during the period of the year in which high groundwater normally occurs in that area. A properly installed nest of piezometers or other methods acceptable to the Department shall be used for making water table observations.

[ED. NOTE: The Table(s) referenced in this rule is not printed in the OAR Compilation. Copies are available from the agency.]

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615, ORS 454.655, ORS 454.695, ORS 468B.050, ORS 468B.055 & ORS 468B.080

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 5-1982, f. & ef. 3-9-82; DEQ 8-1983, f. & ef. 5-25-83; DEQ 9-1984, f. & ef. 5-29-84; DEQ 27-1994, f. & cert. ef. 11-15-94; DEQ 12-1997, f. & cert. ef. 6-19-97; DEQ 8-1998, f. & cert. ef. 6-5-98; DEQ 16-1999, f. & cert. ef. 12-29-99; DEQ 5-2000(Temp), f. 2-24-00, cert. ef. 3-1-00 thru 8-27-00; DEQ 14-2000, f. & cert. ef. 8-24-00

**340-071-0140**  
**Fees -- General**



- (1) **ON-SITE SEWAGE DISPOSAL SYSTEMS -- MAXIMUM FEE:** Except as provided in section (4) of this rule, the following non-refundable fees are required to accompany applications for site evaluations, permits, licenses and services provided by the Department.
- (a) New Site Evaluation:
- (A) Single Family Dwelling:
    - (i) First Lot -- \$425;
    - (ii) Each Additional Lot Evaluated During Initial Visit -- \$425;
  - (B) Commercial Facility System:
    - (i) For First One Thousand (1,000) Gallons Projected Daily Sewage Flow -- \$425;
    - (ii) For systems with projected sewage flows greater than one thousand (1,000) gallons but not more than 2,500 gallons, the site evaluation application fee shall be \$425 plus an additional \$110 for each 500 gallons or part thereof above 1,000 gallons.
  - (C) Site Evaluation Report Review -- \$400;
  - (D) Fees for site evaluation applications made to an agreement county shall be in accordance with that county's fee schedule;
  - (E) Each fee paid for a site evaluation report entitles the applicant to as many site inspections on a single parcel or lot as are necessary to determine site suitability for a single system. The applicant may request additional site inspections within ninety (90) days of the initial site evaluation, at no extra cost;
  - (F) Separate fees shall be required if site inspections are to determine site suitability for more than one (1) system on a single parcel of land.
- (b) Construction-Installation Permit:
- (A) For First One Thousand (1,000) Gallons Projected Daily Sewage Flow:
    - (i) Standard On-Site System -- \$630;
    - (ii) Alternative System:
      - (I) Aerobic System -- \$630;
      - (II) Capping Fill -- \$950;
      - (III) Cesspool -- \$630;
      - (IV) Disposal Trenches in Saprolite -- \$630;
      - (V) Evapotranspiration-Absorption -- \$630;
      - (VI) Gray Water Waste Disposal Sump -- \$280;
      - (VII) Pressure Distribution -- \$950;
      - (VIII) Redundant -- \$630;
      - (IX) Sand Filter -- \$950;
      - (X) Seepage Pit -- \$630;
      - (XI) Seepage Trench -- \$630;
      - (XII) Steep Slope -- \$630;
      - (XIII) Tile Dewatering -- \$950.
    - (iii) At the discretion of the Agent, the permittee may be assessed a reinspection fee, not to exceed \$235, when a pre-cover inspection correction notice requires correction of improper construction and, at a subsequent inspection, the Agent finds system construction deficiencies have not been corrected. The Agent may elect not to make further pre-cover inspections until the reinspection fee is paid;
    - (iv) With the exceptions of sand filter and pressure distribution systems, a \$40 fee may be added to all permits that specify the use of a pump or dosing siphon.
  - (B) For systems with projected daily sewage flows greater than one thousand (1,000) gallons, the Construction-Installation permit fee shall be equal to the fee required in paragraph (1)(b)(A) of this rule plus \$60 for each five hundred (500) gallons or part thereof above one thousand (1,000) gallons;
- NOTE:** Fees for construction permits for systems with projected daily sewage flows greater than two thousand five hundred (2,500) gallons shall be in accordance with the fee schedule for WPCF permits.
- (C) Commercial Facility System, Plan Review:
- (i) For a system with a projected daily sewage flow of less than six hundred (600) gallons, the cost of plan review is included in the permit application fee;
  - (ii) For a system with a projected daily sewage flow of six hundred (600) gallons, but not more than one thousand (1,000) gallons projected daily sewage flow -- \$230;
  - (iii) For a system with a projected sewage flow greater than 1,000 gallons, the plan review fee shall be \$250, plus an additional \$40 for each five hundred (500) gallons or part thereof above one thousand (1,000) gallons, to a maximum sewage flow limit of two thousand five hundred (2,500) gallons per day.

(D) Permit Transfer, Reinstatement or Renewal:

- (i) If Field Visit Required -- \$325;
- (ii) No Field Visit Required -- \$95.

(E) Alteration Permit:

- (i) Major -- \$345;
- (ii) Minor -- \$165.

(F) Repair Permit:

(i) Single Family Dwelling:

- (I) Major -- \$345;
- (II) Minor -- \$165.

(ii) Commercial Facility:

- (I) Major -- The appropriate fees identified in paragraphs (1)(b)(A), (B), and (C) of this rule apply;
- (II) Minor -- \$290.

(G) Permit Denial Review -- \$220.

(c) Authorization Notice:

- (A) If Field Visit Required -- \$390;
- (B) No Field Visit Required -- \$100;
- (C) Authorization Notice Denial Review -- \$400.

(d) Annual Evaluation of Alternative System (Where Required) -- \$330.

(e) Evaluation of Temporary or Hardship Mobile Home -- \$330.

(f) Variance to On-Site System Rules -- \$1,300;

**NOTE:** The variance application fee may be waived if the applicant meets the requirements of OAR 340-071-0415(5).

(g) Rural Area Consideration pursuant to OAR 340-071-0410:

- (A) Site Evaluation -- \$425;

**NOTE:** In the event there is on file a site evaluation report for that parcel that is less than ninety (90) days old, the site evaluation fee shall be waived.

(B) Construction-Installation Permit -- The appropriate fee identified in subsection (1)(b) of this rule applies.

(h) Sewage Disposal Service:

- (A) New Business License -- \$425;
- (B) Renewal of Existing and Valid Business License -- \$320;
- (C) Transfer of or Amendments to License -- \$200;
- (D) Reinstatement of Suspended License -- \$250;
- (E) Pumper Truck Inspection, First Vehicle:
  - (i) Each Inspection -- \$100;
  - (ii) Each Additional Vehicle, Each Inspection -- \$50.

(i) Experimental Systems Permit -- \$5,850;

(j) Existing System Evaluation Report -- \$400;

(k) Innovative or Alternative Technology or Material Review -- \$1,000;

(l) Material Plan Review -- \$300.

(2) Contract County Fee Schedules, General:

(a) Each county having an agreement with the Department under ORS 454.725 shall adopt a fee schedule for services rendered and permits to be issued. The county fee schedule shall not include the Department's surcharge fee identified in section 3 of this rule;

(b) A copy of the fee schedule and any subsequent amendments to the schedule shall be forwarded to the Department;

(c) Fees shall not exceed actual costs for efficiently conducted services.

(3) Surcharge. In order to offset a portion of the administrative and program oversight costs of the statewide on-site sewage disposal program, a surcharge of \$40 for each site evaluated, for each construction installation permit and all other activities for which an application is submitted, shall be levied by the Department and by each Agreement County. Proceeds from surcharges collected by the Department and Agreement Counties shall be accounted for separately. Each Agreement County shall forward the proceeds to the Department as negotiated in the memorandum of agreement (contract) between the county and the Department.

**EXCEPTION:** The surcharge shall not apply to:

- (a) Sewage Disposal Service License applications;
- (b) Pumper Truck Inspections.

(4) Refunds. A refund may be made of all or a portion of a fee accompanying an application if the applicant withdraws the application before any field work or other substantial review of the application has been done.

(5) Fees for WPCF Permits. The following fee schedule shall apply to WPCF Permits for on-site sewage disposal systems issued pursuant to OAR 340-071-0162:

- (a) Application filing fee (all categories) -- \$50;
- (b) Permit processing fees for sewage lagoons and other on-site disposal systems over 1,200 gpd:
  - (A) New Applications -- \$2,000;
  - (B) Permit Renewals (including request for effluent limit modifications) -- \$1,000;
  - (C) Permit Renewal (without request for effluent limit modifications) -- \$500;
  - (D) Permit modification (involving increase in effluent limits) -- \$1,000;
  - (E) Permit modification (not involving an increase in effluent limits) -- \$500;
- (c) Permit processing fees for on-site systems of 1,200 gpd or less:
  - (A) New Applications -- \$400;
  - (B) Permit Renewals (involving request for effluent limit modifications) -- \$200;
  - (C) Permit Renewals (without request for effluent limit modifications) -- \$100;
  - (D) Permit Modifications (involving increase in effluent limitations) -- \$150;
  - (E) Permit Modifications (not involving an increase in effluent limits) -- \$100;
- (d) Registration fee for General Permits -- \$150;
- (e) Site Evaluation Fee:
  - (A) Facilities with design flow of 5,000 gpd or less, same as section (1)(a) of this rule;
  - (B) Facilities with design flow greater than 5,000 gpd -- \$1,200;
- (f) Site Evaluation Confirmation Fee -- \$350;

**NOTE:** A Site Evaluation Confirmation Fee is required if the site evaluation is performed by a qualified consultant but, through the site evaluation review process, a site visit is still required by the Department or Agent.

- (g) Plan Review Fee:
  - (A) Commercial Facilities with design flows less than 5,000 gpd same as paragraph (1)(b)(C) of this rule;
  - (B) Commercial Facilities with design flows of 5,000 gpd or more -- \$500;
  - (C) Non-commercial Facilities -- \$100;

**NOTE:** A plan review fee is required when engineered plans must be reviewed for a facility which requires a WPCF permit.

- (h) Annual Compliance Determination Fee:
  - (A) On-site sewage lagoon with no discharge -- \$600;
  - (B) On-site subsurface systems with individual WPCF Permit or general permit:
    - (i) Standard or alternative subsurface system not listed below, with design flow of 20,000 gpd or more -- \$500;
    - (ii) Standard or alternative subsurface system not listed below with design flow less than 20,000 gpd -- \$250;
    - (iii) Aerobic systems, 1,500 gpd or more -- \$500;
    - (iv) Aerobic systems, less than 1,500 -- \$250;
    - (v) Recirculating Gravel Filter, 1,500 gpd or more -- \$500;
    - (vi) Recirculating Gravel Filter, less than 1,500 gpd -- \$250;
    - (vii) Sand Filter, 1,500 gpd or more -- \$500;
    - (viii) Sand Filter, less than 1,500 gpd -- \$250;
    - (ix) Holding tanks -- \$200.
    - (I) The owner of a holding tank regulated under a WPCF permit submitting an annual written certification, on a Department approved form, that the holding tank has been operated the previous year in full compliance with the permit and that the previous year service log for the holding tank is available for inspection by the Department -- \$25.

Stat. Auth.: ORS 454.625, ORS 468.020 & ORS 468.065(2)

Stats. Implemented: ORS 454.745 & ORS 468.065 & ORS 468B.050

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 19-1981, f. 7-23-81, ef. 7-27-81; DEQ 5-1982, f. & ef. 3-9-82; DEQ 8-1983, f. & ef. 5-25-83; DEQ 9-1984, f. & ef. 5-29-84; DEQ 13-1986, f. & ef. 6-18-86; DEQ 15-1986, f. & ef. 8-6-86; DEQ 6-1988, f. & cert. ef. 3-17-88; DEQ 11-1991, f. & cert. ef. 7-3-91; DEQ 18-1994, f. 7-28-94, cert. ef. 8-1-94; DEQ 27-1994, f. & cert. ef. 11-15-94; DEQ 12-1997, f. & cert. ef. 6-19-97; Administrative correction 1-28-98; DEQ 8-1998, f. & cert. ef. 6-5-98; DEQ 16-1999, f. & cert. ef. 12-29-99; Administrative correction 2-16-00; DEQ 9-2001(Temp), f. & cert. ef. 7-16-01 thru 12-28-01; DEQ 14-2001, f. & cert. ef. 12-26-01

### 340-071-0150

#### Site Evaluation Procedures

- (1) A site evaluation is the first step in the process of obtaining a construction permit for an on-site system. Except as otherwise allowed in these rules, any person who wishes to install a new on-site sewage system shall first obtain a site evaluation report.
- (2) Applications for site evaluations shall be made to the Agent, on forms approved by the Department. Each application must be completed in full, signed by the owner or legally authorized representative, and be accompanied by all required exhibits and appropriate fee. Incomplete applications shall be returned to the applicant to be completed. Unless other procedures approved by the Department are provided within a contract county, applicants shall provide at least 2 test pits with dimensions and configuration as directed by the Agent, which are located approximately 75 feet apart and within the area of the proposed system, including the repair/replacement area.
- (3) Site Evaluation Report:
  - (a) The Agent shall evaluate the site of the proposed system, shall consider all system options, and shall provide a report of such evaluation;
  - (b) The site evaluation report shall be on a form approved by the Department;
  - (c) The report shall contain, at a minimum, a site diagram and observations of the following site characteristics, if present:
    - (A) Parcel size;
    - (B) Slope -- In disposal field and replacement areas (percent and direction);
    - (C) Surface streams -- springs -- other bodies of water;
    - (D) Existing and proposed wells;
    - (E) Escarpments;
    - (F) Cuts and fills;
    - (G) Unstable landforms;
    - (H) Soil profiles -- Determined from test pits provided by applicant;
    - (I) Water table levels (as indicated by conditions associated with saturation);
    - (J) Useable area for initial and replacement disposal areas;
    - (K) Encumbrances (applicant list on application);
    - (L) Sewerage availability;
    - (M) Other observations as appropriate.
  - (d) Site evaluation reports for subdivisions or other land divisions shall be based upon an evaluation of each lot;
  - (e) Specific conditions or limitations imposed on an approved site shall be listed on the evaluation report;
  - (f) An Agent approved site evaluation report assures that the property owner will receive a permit to construct a system on that property provided procedures and conditions for permit issuance found in OAR 340-071-0160 are met.
- (4) Approval or Denial:
  - (a) In order to obtain a favorable site evaluation report the following conditions shall be met:
    - (A) All criteria for approval of a specific type or types of system, as outlined in OAR 340, Division 71 shall be met;
    - (B) Each lot or parcel must have sufficient usable area available to accommodate an initial and replacement system. The usable area may be located within the lot or parcel, or within the bounds of another lot or parcel if secured pursuant to OAR 340-071-0130(11). Sites may be approved where the initial and replacement systems would be of different types, e.g., a standard subsurface system as the initial system and an alternative system as the replacement system. The site evaluation report shall indicate the type of the initial and type of replacement system for which the site is approved.

**EXCEPTION:** A replacement area is not required in areas under control of a legal entity such as a city, county, or sanitary district, provided the legal entity gives a written commitment that sewerage service will be provided within five years.

  - (b) A site evaluation shall be denied where the conditions identified in subsection (4)(a) of this rule are not met;
  - (c) Technical rule changes shall not invalidate a favorable site evaluation, but may require use of a different kind of system.
- (5) Site Evaluation Report Review. A site evaluation report issued by the Agent shall be reviewed at the request of the applicant. The application for review shall be submitted to the Department in writing, within 30 days of the site evaluation report issue date, and be accompanied by the review fee. The review shall be conducted and a report prepared by the Department.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.655 & ORS 454.755

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 5-1982, f. & ef. 3-9-82; DEQ 8-1983, f. & ef. 5-25-83; DEQ 9-1984, f. & ef. 5-29-84; DEQ 15-1986, f. & ef. 8-6-86; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

**340-071-0155**

**Existing System Evaluation Report**

- (1) Any person, upon application, may request an evaluation report on an existing on-site sewage disposal system. The application shall be on a form provided by the agent and approved by the Department.
- (2) The application is complete only when the form, on its face, is completed in full, signed by the owner or the owner's legally authorized representative, and is accompanied by all necessary exhibits including the fee. A fee shall not be charged for an evaluation report on any proposed repair, alteration or extension of an existing system for which a permit application has been made pursuant to OAR 340-071-0160.
- (3) The agent shall:
  - (a) Examine the records, if available, on the existing system; and
  - (b) Conduct a field evaluation of the existing system; and
  - (c) Issue a report of findings to the applicant.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.755, ORS 468B.015 & ORS 468B.080

Hist.: DEQ 8-1983, f. & ef. 5-25-83; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

**340-071-0160**

**Permit Application Procedures -- General Requirements**

- (1) No person shall cause or allow construction, alteration, or repair of a system, or any part thereof, without first applying for and obtaining a permit.

**EXCEPTION:** Emergency repairs as set forth in OAR 340-071-0215.

- (2) Applications for permits shall be made on forms approved by the Department.
- (3) An application is complete only when the form, on its face, is completed in full, is signed by the owner or the owner's legally authorized representative, and is accompanied by all required exhibits and fee. Except as otherwise allowed in this division, the exhibits shall include:
  - (a) Favorable Site Evaluation Report. At the Agent's discretion, the requirement for an evaluation report may be waived when the application is for a repair permit or an alteration permit;
  - (b) A land use compatibility statement from the appropriate land use authority signifying that the proposed land use is compatible with the Land Conservation and Development Commission acknowledged comprehensive plan or complies with the statewide planning goals;
  - (c) Plans and specifications for the on-site system proposed for installation within the area identified by the Agent or in the favorable site evaluation report. The Agent shall determine and request the minimum level of detail necessary to insure proper system construction;
  - (d) Any other information the Agent finds is necessary to complete the permit application.
- (4) The application form shall be received by the Agent only when the form is complete, as detailed in section (3) of this rule.
- (5) Upon receipt of a completed application the Agent shall deny the permit if:
  - (a) The application contains false information;
  - (b) The application was wrongfully received by the Agent;
  - (c) The proposed system would not comply with these rules;
  - (d) The proposed system, if constructed, would violate a Commission moratorium as described in OAR 340-071-0460;
  - (e) The proposed system location is encumbered as described in OAR 340-071-0130(8);
  - (f) A sewerage system which can serve the proposed sewage flow is both legally and physically available, as described in paragraphs (A) and (B) of this subsection:
    - (A) Physical Availability. A sewerage system shall be deemed physically available if its nearest connection point from the property to be served is:
      - (i) For a single family dwelling, or other establishment with a maximum projected daily sewage flow of not more than 450 gallons, within 300 feet;
      - (ii) For a proposed subdivision or group of two to five single family dwellings, or equivalent projected daily sewage flow, not further than 200 feet multiplied by the number of dwellings or dwelling equivalents;
      - (iii) For proposed subdivisions or other developments with more than five single family dwellings, or equivalents, the Agent shall make a case-by-case determination of sewerage availability.

**EXCEPTION:** A sewerage system shall not be considered available if topographic or man-made features make connection physically impractical.

- (B) Legal Availability. A sewerage system shall be deemed legally available if the system is not under a Department connection permit moratorium, and the sewerage system owner is willing or obligated to provide sewer service.

- (6) A permit shall be issued only to a person licensed under ORS 454.695, or to the owner or easement holder of the land on which the system is to be installed.
- (7) No person shall construct, alter or repair a system, or any part thereof, unless that person is licensed under ORS 454.695, or is the permittee.
- (8) The Agent shall either issue or deny the permit within 20 days after receipt of the completed application.  
**EXCEPTION:** If weather conditions or distance & unavailability of transportation prevent the Agent from acting to either issue or deny the permit within 20 days, the applicant shall be notified in writing. The notification shall state the reason for delay. The Agent shall either issue or deny the permit within 60 days after the mailing date of such notification.
- (9) A permit issued pursuant to these rules shall be effective for one year from the date of issuance for construction of the system. Once a system is installed pursuant to the permit, and a Certificate of Satisfactory Completion has been issued for the installation, conditions imposed as requirements for permit issuance shall continue in force as long as the system is in use.
- (10) Renewal or reinstatement of a permit may be granted to the original permittee if an application for permit renewal or reinstatement is filed within one year after the original permit expiration date. Transfer of a permit from the original permittee to another person may be granted if an application for permit transfer is filed prior to the original permit expiration date and no other change to the permit is necessary. Application for permit re-newal, reinstatement or transfer shall conform to the requirements of sections (2) and (4) of this rule. The permit shall be issued or denied consistent with sections (5), (6), (8), and (9) of this rule.
- (11) If a permit has been issued pursuant to these rules but existing soil moisture conditions preclude the construction of the soil absorption system, the septic tank may be installed and used as a temporary holding tank upon approval of the Agent. Before the Agent will approve such use, the permittee shall demonstrate that the outlet of the tank has been sealed with a water tight seal and that the permittee or owner has entered into a pumping contract for the tank. The maximum length of time a septic tank can be used as a temporary holding tank is 12 months.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615 & ORS 454.655

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 19-1981, f. 7-23-81, ef. 7-27-81; DEQ 8-1983, f. & ef. 5-25-83; DEQ 15-1986, f. & ef. 8-6-86; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95 ; DEQ 16-1999, f. & cert. ef. 12-29-99

### **340-071-0162**

#### **Permit Application Procedures -- WPCF Permits**

- (1) Any person wishing to obtain a new, modified, or renewal WPCF permit shall submit a written application on forms provided by the Department. Applications must be submitted at least 60 days before a permit is needed. All application forms must be signed by the applicant or the applicant's legally authorized representative, and accompanied by the specified number of copies of all required exhibits. The name of the applicant must be the legal name of the owner of the facilities, the owner's agent, or the lessee responsible for the operation and maintenance. Some of the required exhibits, but not necessarily all of them, which must accompany the application are:
  - (a) A land use compatibility statement from the local land use planning agency indicating that the site is approved for the activity for which the applicant is applying (if the activity is approved only upon condition of a conditional use permit, a copy of the issued conditional use permit shall be one of exhibits);
  - (b) A copy of a favorable site evaluation report indicating that the site is approved for the type and quantity of wastes to be disposed;
  - (c) Evidence that the permit processing fees and the first year's annual compliance determination fee have been paid to the Department or Agent, as directed;
  - (d) A site diagram meeting the requirements of OAR 340-071-0160(3)(c).
- (2) Applications that are obviously incomplete, unsigned, improperly signed or that do not contain the required exhibits clearly identified will not be accepted by the Department for filing and will be returned for completion. Applications that are correctly signed and appear administratively complete will be considered timely upon receipt. A request for further information under section (3) of this rule will not effect the timeliness of an application.
- (3) Within 45 days after receipt of the application, the Department will preliminarily review the application to determine the adequacy of the information submitted. Failure to complete this review within 45 days does not preclude the Department from later requesting further information from the applicant as provided in this section.
  - (a) If the Department determines that additional information is needed, it will promptly request in writing the needed information from the applicant. The application will be considered withdrawn if the applicant fails to submit the requested information within 90 days of the request.
  - (b) If the Department determines that additional measures are necessary to gather facts regarding the application, the Department will notify the applicant what measures will be instituted, and the timetable and procedures to be

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followed. The application will be considered withdrawn if the applicant fails to comply with the additional measures.

- (4) Following determination that the application is complete for processing, each application will be reviewed on its own merits. Recommendations will be developed in accordance with the provisions of all applicable statutes and rules of the Commission.
- (5) Draft Permit Review. If the Department makes a preliminary determination to issue a permit, a permit will be drafted and sent to the applicant for review. The applicant will have up to 14 calendar days to comment on the draft permit.
- (6) Public Participation. For on-site sewage disposal systems public participation will be in accordance with OAR chapter 340, division 45 as it applies to WPCF permits.
- (7) Final Department Action. The Department must take final action on the permit application within 45 days of the close of the public comment period if a comment period is required. The Department will consider all timely comments and any other information obtained that may be pertinent to the permit action.
- (8) Applicant's Appeal Rights. The Department's decision is effective 20 days from the date of service of the notice of the Department's final action unless within that time the Department receives a request for a hearing from the applicant. The request for a hearing must be in writing and state the grounds for the request. Any hearing will be conducted as a contested case hearing pursuant to ORS 183.413 through 183.470 and OAR chapter 340, division 011.
- (9) Permit Term. A permit issued pursuant to this rule shall be for a period not to exceed 5 years. The expiration date shall be recorded on each permit issued. At least 60 days prior to the expiration of the permit, a permit renewal application, on forms provided by the Department, shall be filed with the Department to obtain renewal of the permit.
- (10) For systems which are proposed to be or which are operating under a WPCF permit, no person shall construct, alter or repair the absorption facility, or any part thereof, unless that person is licensed under ORS 454.695, or is the permittee.
- (11) No person shall connect to or use any system authorized by a WPCF permit, unless the system has been inspected and certified as per OAR chapter 340, division 052, and that certification has been received and accepted by the Department.
- (12) Renewal of a Permit. The procedures for issuance of a permit shall apply to renewal of a permit. If a completed application for renewal of a permit is filed with the Department 60 days before the expiration date of the permit, the permit will not expire until final action has been taken on the renewal application.
- (13) In the event it becomes necessary for the Department to institute modification of a permit due to changing conditions or standards, receipt of additional information or any other reason pursuant to applicable statutes, the modification will be in accordance with OAR chapter 340, division 45 as it applies to WPCF permits.
- (14) A permit termination or revocation will be in accordance with OAR chapter 340, division 45 as it applies to WPCF permits.
- (15) A transfer of a WPCF Permit will be in accordance with OAR chapter 340, division 45 as it applies to WPCF permits.
- (16) General Permits.
  - (a) The Department may issue general permits for certain categories of on-site sewage disposal systems where an individual WPCF permit is not necessary in order to adequately protect public health and the environment. Prior to issuing the general permit, the Department shall follow the public participation procedures in accordance with OAR chapter 340, division 45 as applicable to WPCF permits. In order to be covered by a general permit issued by the Department, a person shall:
    - (A) Submit a registration application on a form provided by the Department or Agent, along with the necessary attachments, including but not limited to favorable site evaluation and land use compatibility statement;
    - (B) Demonstrate that the on-site disposal facility fits into the category of sources covered by the general permit;
    - (C) Submit applicable fees.
  - (b) Any person covered by a general permit may request to be covered by an individual WPCF, in lieu of the general permit, upon submission of the required application and fees;
  - (c) The Department may revoke a general permit as it applies to any person's on-site sewage disposal system and require such person to apply for and obtain an individual WPCF permit, if:
    - (A) The covered source or activity is a significant contributor of pollution or creates other environmental problems;
    - (B) The permittee is not in compliance with the terms and conditions of the general permit; or
    - (C) Conditions or standards have changed so that the source or activity no longer qualifies for a general permit.
  - (d) The Department's Agent may distribute and receive registration applications for general permits for on-site sewage disposal systems and may distribute general permits, if the procedure is established in an agreement between the Department and the Agent.
- (17) Rules Which Do Not Apply to WPCF Applicants or Permittees.
  - (a) Because the permit review, issuance, and appeal procedures for WPCF permits are different from those of other on-site permits regulated by these rules, the following portions within this division do not apply to WPCF applicants or permittees: OAR 340-071-0116; 340-071-0155; 340-071-0160(6), (8), (9), and (10); 340-071-0165(1); 340-071-

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0170; 340-071-0175; 340-071-0185; 340-071-0195; 340-071-0200; 340-071-0205; 340-071-0210; 340-071-0215(1), (2), (3); 340-071-0270; 340-071-0275(4)(c)(A); 340-071-0295(1); 340-071-0305; 340-071-0320; 340-071-0325; 340-071-0330; 340-071-0345; 340-071-0360(2)(b)(B); 340-071-0410; 340-071-0415; 340-071-0420; 340-071-0425; 340-071-0430; 340-071-0435; 340-071-0440; 340-071-0445; and 340-071-0500;

(b) Permit applicants and permittees are not subject to any WPCF permit-related fees other than those specifically contained within OAR 340-071-0140;

(c) The following portions of OAR chapter 340, division 073, do not apply to WPCF applicants or permittees: OAR 340-073-0030(1); 340-073-0065; 340-073-0070; and 340-073-0075.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 468.065, ORS 468.070, ORS 468B.050 & ORS 468B.055

Hist.: DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95; DEQ 12-1997, f. & cert. ef. 6-19-97; DEQ 16-1999, f. & cert. ef. 12-29-99; DEQ 15-2000, f. & cert. ef. 10-11-00

### **340-071-0165**

#### **Permit Denial Review**

- (1) A permit denied by the Agent shall be reviewed at the request of the applicant. The application for review shall be submitted to the Department in writing, within 30 days of the permit denial notice from the Agent, and be accompanied by the denial review fee. The denial review shall be conducted and a report prepared by the Department.
- (2) Permit denials for systems proposed to serve a commercial facility, intended to be used in a commercial activity, trade, occupation or profession, and all systems covered by WPCF permit, may be appealed through the contested case hearing procedure set forth in ORS Chapter 183 and OAR Chapter 340, Division 11.
- (3) If the Agent intends to deny a permit for a parcel of ten acres or larger in size, the Agent shall:
  - (a) Provide the applicant with a Notice of Intent to Deny;
  - (b) Specify reasons for the intended denial; and
  - (c) Offer a contested case hearing in accordance with ORS Chapter 183 and OAR Chapter 340, Division 11.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.655

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 5-1982, f. & ef. 3-9-82; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

### **340-071-0170**

#### **Pre-Cover Inspections**

- (1) When construction, alteration or repair of a system for which a permit has been issued is complete, except for backfill (cover), or as required by permit, the system installer shall notify the Agent. The Agent shall inspect the installation to determine if it complies with the rules of the Commission, unless the inspection is waived by the Agent in accordance with section (2) of this rule or in accordance with the provisions of OAR 340-071-0400(6).
- (2) The Agent may, at the Agent's election, waive the pre-cover inspection for a system proposed to serve a single family dwelling or for a system of similar flow and waste strength, provided:
  - (a) The system was installed by a sewage disposal service licensed pursuant to ORS 454.695; and
  - (b) The inspecting jurisdiction and the Department have developed an impartial method of identifying those installers who have a history of proper installations without excessive numbers of corrections; and
  - (c) Inspections waived are for installations made by installers identified as having a good history of proper installation; and
  - (d) A representative number of each installer's systems has been inspected, regardless of installation history; and
  - (e) The Agent may require the installer to submit to the Agent photographs of those portions of the construction where the inspection is waived.
- (3) The system installer shall submit the following information to the Agent at the time construction of the system is complete:
  - (a) A detailed and accurate as-built plan of the constructed system; and
  - (b) A list of all materials used in the construction of the system; and
  - (c) A written certification (on a form acceptable to the Department) that the construction was in accordance with the permit and rules of the Commission.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.665

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 15-1986, f. & ef. 8-6-86; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

### **340-071-0175**



### **Certificate of Satisfactory Completion**

- (1) The Agent shall issue a Certificate of Satisfactory Completion if, upon inspection of installation, the system complies with the rules of the Commission and the conditions of the permit.
- (2) If inspected installation does not comply with the rules of the Commission and the conditions of the permit, the permittee shall be notified in writing or a Correction Notice shall be posted on the site. System deficiencies shall be explained and satisfactory completion required. Follow-up inspections may be waived by the Agent. After satisfactory completion a Certificate shall be issued.
- (3) If the inspection is not made within 7 days after notification of completion, or if the inspection is waived in accordance with OAR 340-071-0170(2) or OAR 340-071-0400(6), a Certificate of Satisfactory Completion shall be deemed to have been issued by operation of law. In such cases, a modified Certificate shall be issued to the owner.
- (4) A system, once installed, shall be backfilled (covered) only when:
  - (a) The permittee is notified by the Agent that inspection has been waived; or
  - (b) The inspection has been conducted by the Agent and a Certificate of Satisfactory Completion has been issued; or
  - (c) A Certificate of Satisfactory Completion has been issued by operation of law where the inspection has not been conducted within seven days of notification of completed installation.
- (5) Failure to meet requirements for satisfactory completion within 30 days after written notification or posting of a Correction Notice on the site, constitutes a violation of ORS 454.605 to 454.745 and this division.
- (6) No person shall connect to or use any system, completed on or after January 1, 1974, unless a Certificate of Satisfactory Completion has been issued for the installation, or deemed issued by operation of law as provided in ORS 454.665(2).
- (7) Unless otherwise required by the Agent the system installer shall backfill (cover) a system within 10 days after issuance of a Certificate of Satisfactory Completion for that system.
- (8) A Certificate of Satisfactory Completion shall be valid for a period of 5 years, for connection of the system to the facility for which it was constructed. After the 5 year period, rules for Authorization Notices or Alteration Permits apply, as outlined in OAR 340-071-0205 and 340-071-0210.
- (9) Denial of a Certificate of Satisfactory Completion may be appealed in accordance with ORS 183.310 and OAR Chapter 340, Division 11.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.655

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

### **340-071-0185**

#### **Decommissioning of Systems**

- (1) The owner shall decommission a system when:
  - (a) A sewerage system becomes available and the building sewer has been connected thereto; or
  - (b) The source of sewage has been permanently eliminated; or
  - (c) The system has been operated in violation of OAR 340-071-0130(13), unless and until a repair permit and Certificate of Satisfactory Completion are subsequently issued therefor; or
  - (d) The system has been constructed, installed, altered, or repaired without a required permit authorizing same, unless and until a permit is subsequently issued therefor; or
  - (e) The system has been operated or used without a required Certificate of Satisfactory Completion or Authorization Notice authorizing same, unless and until a Certificate of Satisfactory Completion or Authorization Notice is subsequently issued therefor.
- (2) Procedures for Decommissioning:
  - (a) The tank(s), cesspool or seepage pit shall be pumped by a licensed sewage disposal service to remove all septage;
  - (b) The tank(s), cesspool or seepage pit shall be filled with reject sand, bar run gravel, or other material approved by the Agent, or the container shall be removed and properly disposed.
- (3) If, in the judgment of the Agent, it is not reasonably possible or necessary to comply with subsections (2)(a) and (b) of this rule, the Agent may waive either or both of these requirements provided such action does not constitute a menace to public health, welfare or safety.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615 & ORS 454.655

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 5-1982, f. & ef. 3-9-82; DEQ 15-1986, f. & ef. 8-6-86; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

### **340-071-0195**

#### **Upgrading Disposal System**

When upgrading systems which approximate a pit privy and gray water discharge to the surface or to a pit, system repair OAR (340-071-0215) shall apply, provided:

- (1) The system serves an occupied dwelling; and
- (2) The system and dwelling were constructed prior to January 1, 1974.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615, ORS 454.655 & ORS 454.675

Hist.: DEQ 10-1981, f. & ef. 3-20-81

### **340-071-0200**

#### **Prior Construction Permits or Approvals**

- (1) All construction permits and written approvals issued prior to January 1, 1974, expired by rule of the Commission on July 1, 1976, unless they met all requirements of OAR 340-071-0015(8) and were converted to Department construction permits prior to that date.
- (2) Converted permits required system construction prior to July 1, 1980. Any prior approvals or prior permits failing to meet the two (2) deadline dates above are void.
- (3) All sites now proposed for on-site systems must meet appropriate requirements of these rules.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.655

Hist.: DEQ 10-1981, f. & ef. 3-20-81

### **340-071-0205**

#### **Authorization to Use Existing Systems**

- (1) Authorization Notice Required. Except as otherwise allowed in this division no person shall place into service, re-connect to, change the use of, or increase the projected daily sewage flow into an existing on-site sewage disposal system without first obtaining an Authorization Notice, Construction-Installation Permit or Alteration Permit as appropriate.

#### **EXCEPTIONS:**

-1- An Authorization Notice is not required when a mobile home is replaced with similar mobile home in a mobile home park, or a recreation vehicle is replaced by another recreation vehicle in a lawful recreation vehicle park, provided the sanitary wastewater system has adequate capacity for safe treatment and disposal of sewage generated within the park;

-2- An Authorization Notice is not required for placing into service a previously unused system for which a Certificate of Satisfactory Completion has been issued within five (5) years of the date such system is placed into service, providing the projected daily sewage flow does not exceed the design flow, and there is no other violation of these rules.

- (2) An application for the Authorization Notice shall be submitted on a form approved by the Department. The application is complete only when the form, on its face, is completed in full, is signed by the owner or the owner's legally authorized representative, and is accompanied by all required exhibits and fee. The exhibits shall include:
  - (a) A land use compatibility statement from the appropriate land use authority signifying that the proposed land use is compatible with the Land Conservation and Development Commission acknowledged comprehensive plan or complies with the statewide planning goals;
  - (b) An accurate property development plan;
  - (c) A sewage treatment and disposal system description;
  - (d) Tax lot map or equivalent plat map for the property;
  - (e) Documentation of hardship if such is being claimed;
  - (f) All other information the Agent finds is necessary to complete the application.
- (3) For placing into service or for changes in the use of an existing on-site sewage disposal system where no increase in sewage flow is projected, or where the design flow is not exceeded; an Authorization Notice valid for a period not to exceed one (1) year may be issued if:
  - (a) The existing system is not failing; and
  - (b) All set-backs between the existing system and the structure can be maintained; and
  - (c) In the opinion of the Agent the proposed use would not create a public health hazard on the ground surface or in surface public waters.
- (4) For placing into service, or for changing the use of a system where projected daily sewage flow would be increased by not more than three hundred (300) gallons beyond the design capacity or by not more than fifty (50) percent of the design capacity for the system, whichever is less; an Authorization Notice valid for a period not to exceed one (1) year may be issued if:
  - (a) The existing system is shown not to be failing; and
  - (b) All set-backs between the existing system and the structure can be maintained; and

- (c) Sufficient area exists so that a complete replacement area meeting all requirements of these rules (except those portions relating to soil conditions and groundwater) is available; and
- (d) In the opinion of the Agent the proposed increase would not create a public health hazard or water pollution.
- (5) Only one (1) Authorization Notice for an increase of up to three hundred (300) gallons beyond the design capacity, or increase of not more than fifty (50) percent of the design capacity, whichever is less, will be allowed per system.
- (6) For placing into service, or for changing the use of a system where projected daily sewage flows would be increased by more than three hundred (300) gallons beyond the design capacity, or increased by more than fifty (50) percent of the design capacity of the system, whichever is less, a Construction-Installation Permit shall be obtained. The permit application procedure described in OAR 340-071-0160 shall be followed.
- (7) Personal Hardship:
  - (a) The Agent may allow a mobile home to use an existing system serving another dwelling, in order to provide housing for a person suffering hardship, or for an individual providing care for such a person, by issuing an Authorization Notice, if:
    - (A) The Agent receives satisfactory evidence which indicates that a person is suffering physical or mental impairment, infirmity, or is otherwise disabled (a hardship approval issued under local planning ordinances shall be accepted as satisfactory evidence); and
    - (B) The system is not failing; and
    - (C) The application is for a mobile home; and
    - (D) Evidence is provided that a hardship mobile home placement is allowed on the subject property by the governmental agency that regulates zoning, land use planning, and/or building.
  - (b) The Authorization Notice shall remain in effect for a specified period not to exceed 5 years, but shall not exceed cessation of the hardship. The Authorization Notice may be extended for additional periods by submitting an application in accordance with the requirements in section (2) of this rule. The Agent shall impose conditions in the Authorization Notice which are necessary to assure protection of public health.
- (8) Temporary Placement:
  - (a) The Agent may allow a mobile home to use an existing system serving another dwelling in order to provide temporary housing for a family member in need, and may issue an Authorization Notice provided:
    - (A) The Agent receives evidence that the family member is in need of temporary housing; and
    - (B) The system is not failing; and
    - (C) A full system replacement area is available; and
    - (D) Evidence is provided that a temporary mobile home placement is allowed on the subject property by the governmental agency that regulates zoning, land use planning, and/or building.
  - (b) The Authorization Notice shall authorize use for no more than two (2) years and is not renewable. The Agent shall impose conditions in the Authorization Notice necessary to assure protection of public health. If the system fails during the temporary placement and additional replacement area is no longer available, the mobile home shall be removed from the property.
- (9) If the conditions of sections (3), (4), (6), (7) and (8) of this rule cannot be met, the Agent shall either deny the Authorization Notice or shall not issue it until such time as necessary alterations and/or repairs to the system are made. The fee submitted as part of the Authorization Notice application shall be credited towards the fee for the appropriate permit. If the appropriate permit fee is higher than the fee already paid, the owner shall pay the difference. The Agent may require submittal of the exhibits described in OAR 340-071-0160(3) to complete the application, and shall issue or deny the appropriate permit consistent with sections (5), (6), (8), and (9) of that rule.
- (10) An Authorization Notice denied by the Agent shall be reviewed by the Department at the request of the applicant. The application for review shall be submitted to the Department in writing within forty-five (45) days of the authorization notice denial, and be accompanied by the denial review fee and other information the Department finds is necessary to complete the application. The denial review shall be conducted and a report prepared by the Department.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615 & ORS 468B.080

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 5-1982, f. & ef. 3-9-82; DEQ 8-1983, f. & ef. 5-25-83; DEQ 9-1984, f. & ef. 5-29-84; DEQ 11-1991, f. & cert. ef. 7-3-91; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95; DEQ 12-1997, f. & cert. ef. 6-19-97

### **340-071-0210**

#### **Alteration of Existing On-Site Sewage Disposal Systems**

- (1) Permit Required. No person shall alter or increase the design capacity of an existing on-site sewage disposal system without first obtaining an Alteration Permit or Construction-Installation Permit, as appropriate. The permit application procedure is described in OAR 340-071-0160;

- (2) An application for an Alteration Permit shall be submitted to the Agent for proposed alterations to an existing system. The permit may be issued if the provisions of either subsections (a) or (b) of this section are met:
- (a) Alterations that do not increase the system's design capacity beyond the original design flow:
    - (A) The existing system is not failing; and
    - (B) The site setbacks in **Table 1** can be met except; If the setbacks in **Table 1** for septic tanks, treatment units, effluent sewer and distribution units cannot be met, the Agent may allow a reasonable installation; and
    - (C) In the opinion of the Agent, use of the on-site system would not create a public health hazard or water pollution.
  - (b) Alterations that do not exceed the existing system's design capacity by more than 300 gallons per day or 50 percent, whichever is less:
    - (A) The existing system is not failing; and
    - (B) The setbacks in **Table 1** can be met; and
    - (C) In the opinion of the Agent, use of the on-site system would not create a public health hazard or water pollution.
- (3) An application for a Construction-Installation Permit shall be submitted to the Agent when the existing system's design capacity is proposed to be exceeded by greater than 300 gallons per day or greater than 50 percent, whichever is less. The permit application procedure described in OAR 340-071-0160 shall be followed.
- (4) Certificate of Satisfactory Completion Required. Upon completion of installation of that part of a system for which a permit has been issued, the system installer shall comply with the requirements for pre-cover inspections, as described in OAR 340-071-0170. The Agent shall issue or deny the Certificate of Satisfactory Completion for the completed construction pursuant to OAR 340-071-0175. An increase in the projected daily sewage flow into the system is prohibited until the Certificate is issued.

[ED. NOTE: The Table(s) referenced in this rule is not printed in the OAR Compilation. Copies are available from the agency.]

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615, ORS 454.655, ORS 454.665 & ORS 454.675

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 8-1983, f. & ef. 5-25-83; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

### **340-071-0215**

#### **Repair of Existing Systems**

- (1) A failing system shall be immediately repaired.

**EXCEPTION:** If in the opinion of the Agent adverse soil conditions exist due to climatic conditions that would likely preclude a successful repair, the Agent may allow a delay in commencing repairs until the soil conditions improve. If this exception is exercised, a compliance date shall be specified in a Notice of Violation to the system owner.

- (2) No person shall repair a failing system without first obtaining a Repair Permit. The permit application procedure is described in OAR 340-071-0160.

**EXCEPTION:** Emergency repairs may be made without first obtaining a permit provided that a repair permit application is submitted to the Agent within 3 working days after the emergency repairs are begun.

- (3) Certificate of Satisfactory Completion. Upon completion of installation of that part of a system for which a repair permit has been issued, the system installer shall comply with the requirements for pre-cover inspections, as described in OAR 340-071-0170. The Agent shall issue or deny the Certificate of Satisfactory Completion pursuant to OAR 340-071-0175.

- (4) Criteria for Permit Issuance:

- (a) If the site characteristics and standards described in OAR 340-071-0220 can be met, then the repair installation shall conform with them;
- (b) If the site characteristics or standards described in OAR 340-071-0220 cannot be met, the Agent may allow a reasonable repair installation in order to eliminate a public health hazard. Reasonable repairs may require the installation of an alternative system in order to eliminate a public health hazard.

- (5) Failing systems which cannot be repaired shall be decommissioned in accordance with OAR 340-071-0185.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615, ORS 454.655, ORS 454.665, ORS 454.675 & ORS 468B.080

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 5-1982, f. & ef. 3-9-82; DEQ 15-1986, f. & ef. 8-6-86; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

### **340-071-0220**

#### **Standard Subsurface Systems**

- (1) Criteria For Standard Subsurface System Approval. In order to be approved for a standard subsurface system each site must meet all the following conditions:

- (a) Effective soil depth shall extend thirty (30) inches or more from the ground surface as shown in **Table 3**. A minimum six (6) inch separation shall be maintained between the layer that limits effective soil depth and the bottom of the absorption facility.
- (b) Water table levels shall be predicted using Standards in OAR 340-071-0130(24).
  - (A) A permanent water table shall be four (4) feet or more from the bottom of the absorption facility.

**EXCEPTION:** In defined geographic areas where the Department has determined through a groundwater study that degradation of groundwater would not be caused nor public health hazards created. In the event this exception is allowed, the rule pertaining to a temporary water table shall apply.

- (B) A temporary water table shall be twenty-four (24) inches or more below the ground surface. An absorption facility shall not be installed deeper than the level of the temporary water table;
  - (C) Groundwater Interceptors. A groundwater interceptor may be used to intercept and/or drain temporary water from a disposal area; however, it may be required to demonstrate that the site can be de-watered prior to issuing a Construction-Installation permit. Groundwater interceptors may be used only on sites with adequate slope to permit proper drainage. Unless otherwise authorized by the Agent, each outlet shall be protected by a short section of Schedule 40 PVC or ABS plastic pipe and a grill to exclude rodents. Where required, groundwater interceptors are an integral part of the system, but do not need to meet setback requirements to property lines, wells, streams, lakes, ponds or other surface waterbodies which are required of the sewage disposal area.
- (c) Soil with rapid or very rapid permeability shall be thirty six (36) inches or more below the ground surface. A minimum eighteen (18) inch separation shall be maintained between soil with rapid or very rapid permeability and the bottom of disposal trenches.

**EXCEPTION:** Sites may be approved with no separation between the bottom of disposal trenches & soil as defined in OAR 340-071-0100(139)(a) & (b), with rapid or very rapid permeability, & disposal trenches may be placed into soil as defined in OAR 340-071-0100(139)(a) & (b), with rapid or very rapid permeability if any of the following conditions occur:

- 1- A confining layer occurs between the bottom of disposal trenches and the groundwater table. A minimum six (6) inch separation shall be maintained between the bottom of disposal trenches and the top of the confining layer; or
- 2- A layer of non-gravelly (less than 15% gravel) soil with sandy loam texture or finer at least eighteen (18) inches thick occurs between the bottom of the disposal trenches and the groundwater table; or
- 3- The projected daily sewage flow does not exceed a loading rate of four hundred fifty (450) gallons per acre per day.

- (d) Slopes shall not exceed thirty (30) percent and the slope/depth relationship set forth in **Table 3**;
- (e) The site has not been filled or the soil has not been modified in a way that would, in the opinion of the Agent, adversely affect functioning of the system;
- (f) The site shall not be on an unstable land form, where operation of the system may be adversely affected;
- (g) The site of the initial and replacement absorption facility shall not be covered by asphalt or concrete, or subject to vehicular traffic, livestock, or other activity which would adversely affect the soil;
- (h) The site of the initial and replacement absorption facility will not be subjected to excessive saturation due to, but not limited to, artificial drainage of ground surfaces, driveways, roads, and roof drains;
- (i) Setbacks in **Table 1** can be met:
  - (A) Surface Waters Setbacks. Setback from streams or other surface waters shall be measured from bank drop-off or mean yearly highwater mark, whichever provides the greatest separation distance;
  - (B) Lots Created Prior to May 1, 1973. For lots or parcels legally created prior to May 1, 1973, the Agent may approve installation of a standard or alternative system with a setback from surface public waters of less than one hundred (100) feet but not less than fifty (50) feet, provided all other provisions of these rules can be met;
  - (C) Water Lines and Sewer Lines Cross. Where water lines and building or effluent sewer lines cross, separation distances shall be as required in the State Plumbing Code;
  - (D) Septic Tank Setbacks. The Agent shall encourage the placement of septic tanks and other treatment units as close as feasible to the minimum separation from the building foundation in order to minimize clogging of the building sewer.

(2) Criteria For System Sizing: Disposal Fields. Disposal fields shall be designed and sized on the basis of:

- (a) **Table 2**, Quantities of Sewage Flows; or other information determined by the Agent to be reliable.

**EXCEPTIONS:** Systems shall be sized on the basis of three hundred (300) gallons sewage flow per day, plus seventy-five (75) gallons per day for the third bedroom when:

- 1- Systems are proposed to serve single family dwellings on lots of record that were created prior to March 1, 1978, which are inadequate in size to accommodate a system sized for a daily sewage flow of four hundred fifty (450) gallons.
- 2- Systems for specifically planned developments, with living units of three (3) or fewer bedrooms, where deed restrictions prohibit an increase in the number of bedrooms.

- (b) **Table 4**, Minimum Length of Disposal Trench Required, Soil Texture Versus Effective Soil Depth;

- (c) **Table 5**, Minimum Length of Disposal Trench Required, Soil Texture Versus Depth to Temporary Water;
  - (d) Strength of the Wastewater. Where the strength of the wastewater exceeds the maximum limits for "Residential Strength Wastewater," as defined in OAR 340-071-0100, and/or the contents of the wastewater are atypical of the same or are foreseen as a threat to groundwater, public health, or the environment, the wastewater shall first receive pre-treatment to reduce the factor(s) to acceptable levels, before it can be discharged into a standard or alternative treatment and disposal system. Any system which requires pre-treatment requires a WPCF permit for construction and operation.
- (3) Septic Tanks:
- (a) Liquid Capacity:
    - (A) Septic tanks for commercial facilities shall have a liquid capacity of at least two (2) times the projected daily sewage flow, unless otherwise authorized by the Agent or Department; but in no case shall capacity be less than 1,000 gallons;
    - (B) Additional volume may be required by the Agent for special or unique waste characteristics, including but not limited to flow patterns, volumes, waste strength, or facility operation;
    - (C) The quantity of daily sewage flow shall be estimated from **Table 2**. For structures not listed in **Table 2**, the Agent shall determine the projected daily sewage flow;
    - (D) Single Family Dwelling. A septic tank to serve a single family dwelling shall be sized on the number of bedrooms in the dwelling. For a dwelling with 4 or fewer bedrooms, the tank capacity shall be at least 1,000 gallons. A 1,500 gallon (or larger) septic tank shall be required when the dwelling has more than 4 bedrooms.
  - (b) Installation Requirements:
    - (A) Septic tanks shall be installed on a level, stable base that will not settle;
    - (B) Septic tanks located in high groundwater areas shall be weighted or provided with an antibuoyancy device to prevent flotation;
    - (C) All septic tanks shall be installed with a watertight manhole riser extending to the ground surface or above. The riser shall have a minimum nominal diameter of 20 inches. A cover shall be provided and securely fastened or weighted to prevent easy removal. Septic tanks with a soil cover depth of more than 36 inches or having a capacity of more than 3,000 gallons shall have at least one manhole riser which is 30 inches in diameter or more;
    - (D) Septic tanks shall be installed in a location that provides access for servicing and pumping;
    - (E) Where practicable, the sewage flow from any establishment shall be consolidated into one septic tank.
    - (F) At the discretion of the Agent, a removable plug may be placed in the top of the septic tank's inlet sanitary tee if the septic tank discharges directly into a gravity-fed absorption facility;
    - (G) All tanks shall be tested for water tightness in accordance with OAR 340-073-0025.
    - (H) The outlet of all septic tanks serving commercial facilities shall be equipped with an effluent filter meeting the requirements of Rule 073-0056, complete with a service riser for the filter which meets all the requirements of OAR 340-071-0220(3)(b)(C).
  - (c) Construction. Septic tank construction shall comply with minimum standards set forth in OAR Chapter 340, Division 073, unless otherwise authorized in writing by the Department.
  - (d) Double Compartment. Where a septic tank is preceded by a sewage ejector pump, the tank shall be constructed as a two (2) compartmentalized tank. The first compartment shall be not less than two thirds the required tank capacity. All other requirements of these rules apply. An effluent filter shall be installed on the outlet of the tank.
- (4) Distribution Techniques. Disposal trenches shall be constructed according to one of the following methods:
- (a) Gravity Fed Equal Distribution (including Loop).
    - (A) Equal distribution shall be used on generally level ground. All trenches and piping shall be level within a tolerance of plus or minus one (1) inch. All lateral piping shall be at the same elevation;
    - (B) A pressure operated hydrosplitter may be used to achieve equal distribution;
    - (C) To determine the total useable area of a looped soil absorption facility, the Agent shall take the sum of the lengths of the parallel disposal trenches plus the lengths of a maximum of two (2) disposal trenches intersecting the parallel trenches.
  - (b) Serial Distribution. Serial distribution is generally used on sloping ground. Each trench shall be level within a tolerance of plus or minus one (1) inch. Serial distribution may be a combination of equal distribution and serial distribution;
  - (c) Pressurized Distribution Systems. Refer to OAR 340-071-0275, for pressurized distribution requirements.
- (5) Distribution Boxes and Drop Boxes:
- (a) Construction. Construction of distribution boxes and drop boxes shall comply with minimum standards in OAR 340-073-0035 and 340-073-0040.

- (b) Foundation. All distribution boxes and drop boxes shall be bedded on a stable, level base;
  - (c) In all gravity distribution techniques, the connection of the effluent piping to the distribution piping shall include at least one distribution or drop box or other device acceptable to the Agent as a means for locating and monitoring the disposal field.
- (6) Dosing Tanks:
- (a) Construction of dosing tanks shall comply with the minimum standards in OAR 340-073-0025 and 340-073-0050, unless otherwise authorized in writing by the Department on a case-by-case basis;
  - (b) Each dosing tank shall be installed on a stable, level base;
  - (c) Each dosing tank shall be provided with at least one watertight riser and gasketed manhole cover, extending to the ground surface or above. The riser shall have a minimum nominal diameter of twenty (20) inches. Provision shall be made for securely fastening the manhole cover, unless it weighs at least 50 pounds;
  - (d) Dosing tanks located in high groundwater areas shall be weighted or provided with an antibuoyancy device to prevent flotation.
- (7) Disposal Trenches:
- (a) Disposal trenches shall be constructed in accordance with the standards contained in the following table, unless otherwise allowed or required within a specific rule of this division:
    - (A) Minimum bottom width of trench -- 24 inches;
    - (B) Minimum depth of trench, using:
      - (i) Equal or loop distribution -- 18 inches;
      - (ii) Serial distribution -- 24 inches;
      - (iii) Pressure distribution -- 18 inches;
    - (C) Maximum depth of trench -- 36 inches;
    - (D) Minimum distance of undisturbed earth between disposal trenches -- 8 feet.
  - (b) The bottom of the disposal trench shall be level within a tolerance of plus or minus one (1) inch;
  - (c) When the sidewall within the disposal trench has been smeared or compacted, sidewalls shall be raked to insure permeability.
  - (d) Trenches shall not be constructed in a manner that would allow septic tank effluent to flow backwards from the distribution pipe to undermine the distribution box, the septic tank, or any portion of the distribution unit.
  - (e) Drain media shall extend the full width and length of the disposal trench to a depth of not less than twelve (12) inches. There shall be at least six (6) inches of drain media under the distribution pipe and at least two (2) inches over the distribution pipe;
  - (f) Prior to backfilling the trench, the drain media shall be covered with filter fabric, untreated building paper, or other material approved by the Agent;
  - (g) Where trenches are installed in sandy loam or coarser soils, filter fabric or other non-degradable material approved by the Agent shall be used to cover the drain media.
- (8) Trench Backfill:
- (a) The installer shall assume responsibility for backfilling the system. Backfill shall be carefully placed to prevent damage to the system;
  - (b) A minimum of six (6) inches of backfill is required, except in serial systems where twelve (12) inches is required.
  - (c) Backfill shall be free of large stones, frozen clumps of earth, masonry, stumps, or waste construction materials, or other materials that could damage the system.
- (9) Header Pipe (OAR 340-073-0060): Header pipe shall be watertight, have a minimum diameter of three (3) inches, and be bedded on undisturbed earth. Where distribution boxes or drop boxes are used, header pipe shall be at least four (4) feet in length.
- (10) Distribution Pipe (OAR 340-073-0060):
- (a) Distribution pipes shall have a minimum diameter of three (3) inches;
  - (b) Each disposal trench shall have distribution piping that is centered in the trench and laid level within a tolerance of plus or minus one (1) inch;
  - (c) Distribution piping, which complies with standards in OAR 340-073-0060, may consist of perforated bituminized fiber, perforated plastic, clay tile or concrete tile;
  - (d) All perforated pipe shall be installed with centerline markings up;
  - (e) Concrete tile and clay tile shall be laid with grade boards and with one-quarter (1/4) inch open joints. The top one-half (1/2) of the joints shall be covered with strips of treated building paper, tar paper, tile connectors, spacers, collars or clips, or other materials approved by the Agent.
- (11) Effluent Sewer (OAR 340-073-0060): The effluent sewer shall extend at least five (5) feet beyond the septic tank before connecting to the distribution unit. It shall be installed with a minimum fall of four (4) inches per one hundred (100) feet,

but in no instance shall there be less than two (2) inches of fall from one end of the pipe to the other. In addition, there must be a minimum difference of 8 inches between the invert of the septic tank outlet and the invert of the header to the distribution pipe of the highest lateral in a serial distribution disposal field or the invert of the header pipe to the distribution pipes of an equal distribution disposal field.

- (12) Large Systems. Systems with a projected daily sewage flow greater than two thousand five hundred (2,500) gallons shall be designed in accordance with requirements set forth in OAR 340-071-0520.

[ED. NOTE: The Table(s) referenced in this rule is not printed in the OAR Compilation. Copies are available from the agency.]

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615 & ORS 468B.080

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 19-1981, f. 7-23-81, ef. 7-27-81; DEQ 5-1982, f. & ef. 3-9-82; DEQ 8-1983, f. & ef. 5-25-83; DEQ 9-1984, f. & ef. 5-29-84; DEQ 15-1986, f. & ef. 8-6-86; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95 ; DEQ 12-1997, f. & cert. ef. 6-19-97; DEQ 16-1999, f. & cert. ef. 12-29-99

### **340-071-0260**

#### **Alternative Systems, General**

- (1) Unless otherwise noted, all rules pertaining to the siting, construction, and maintenance of standard subsurface systems shall apply to alternative systems.
- (2) General Requirements:
- (a) Periodic Inspection of Installed Systems. Where required by rule of the Commission, periodic inspections of installed alternative systems shall be performed by the Agent. An inspection fee may be charged;
  - (b) A report of each inspection shall be prepared by the Agent. The report shall list system deficiencies and correction requirements and timetables for correction. A copy of the report shall be provided promptly to the system owner. Necessary follow-up inspections shall be scheduled.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615 & ORS 454.775

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 9-1984, f. & ef. 5-29-84; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

### **340-071-0265**

#### **Capping Fills**

- (1) Criteria for Approval. In order to be approved for a capping fill system, each site must meet all the following conditions:
- (a) Slope does not exceed 12 percent;
  - (b) Temporary water table is not closer than 18 inches to the ground surface at anytime during the year. A 6 inch minimum separation must be maintained between the bottom of the disposal trench and the temporary water table;
  - (c) Where a permanent water table is present, a minimum 4 feet separation shall be maintained between the bottom of the disposal trench and the water table;
  - (d) Where material with rapid or very rapid permeability is present, a minimum 18 inches separation shall be maintained between the bottom of the disposal trench and soil with rapid or very rapid permeability;
  - (e) Effective soil depth is 18 inches or more below the natural soil surface;
  - (f) Soil texture from the ground surface to the layer that limits effective soil depth is no finer than silty clay loam;
  - (g) A minimum 6 inch separation shall be maintained between the bottom of the disposal trench and the layer that limits effective soil depth;
  - (h) The system can be sized according to effective soil depth in **Table 4**.
- (2) Installation Requirements. The cap shall be constructed pursuant to permit requirements. Unless otherwise required by the Agent, construction sequence shall be as follows:
- (a) The soil shall be examined and approved by the Agent prior to placement. The texture of the soil used for the cap shall be of the same textural class, or of one textural class finer, as the natural topsoil;
  - (b) Construction of capping fills shall occur between June 1 and October 1 unless otherwise allowed by the Agent. The upper 18 inches of natural soil must not be saturated or at a moisture content which causes loss of soil structure and porosity when worked;
  - (c) The disposal area and the borrow site shall be scarified to destroy the vegetative mat;
  - (d) The system shall be installed as specified in the construction permit. There shall be a minimum ten feet of separation between the edge of the fill and the absorption facility;
  - (e) Filter fabric shall be used between the drain media and the soil cap, unless otherwise authorized by the Agent on a case-by-case basis;



- (f) Fill shall be applied to the fill site and worked in so that the two contact layers (native soil and fill) are mixed. Fill material shall be evenly graded to a final depth of 10 inches over the drain media for an equal system, or 16 inches over the drain media for a serial system. This is to allow for appropriate settled depths. Both initial cap and repair cap may be constructed at the same time;
  - (g) The site shall be landscaped according to permit conditions and be protected from livestock, automotive traffic or other activity that could damage the system.
- (3) Required Inspections. Unless waived by the Agent, the following minimum inspections shall be performed for each capping fill installed:
- (a) Both the disposal area and borrow material must be inspected for scarification, soil texture, and moisture content, prior to cap construction;
  - (b) Precover inspection of the installed absorption facility;
  - (c) After cap is placed, to determine that there is good contact between fill material and native soil (no obvious contact zone visible), adequate depth of material, and uniform distribution of fill material;
  - (d) Final inspection, after landscaping or other erosion control measures are established. A Certificate of Satisfactory Completion may be issued at this point.

[ED. NOTE: The Table(s) referenced in this rule is not printed in the OAR Compilation. Copies are available from the agency.]

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615 & ORS 454.775

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 8-1983, f. & ef. 5-25-83; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

### **340-071-0270**

#### **Evapotranspiration-Absorption (ETA) Systems**

- (1) Criteria for Approval. ETA systems will only be approved for waste flows which do not exceed 600 gallons per day and which meet criteria for residential strength. Installation permits may be issued for ETA systems on sites that meet all of the following conditions:
- (a) The soil has moist matrix values and chromas greater than 2 within the first 12 inches of the soil profile;
  - (b) Mean annual precipitation does not exceed 25 inches;
  - (c) There exists a minimum of 30 inches of moderately well to well-drained soil. The subsoil at a depth of 12 inches and below shall be fine textured;
  - (d) Slope shall not be less than 6 percent nor more than 15 percent. Exposure may be taken into consideration.
- (2) Criteria for System Design. ETA beds shall be designed under the following criteria:
- (a) Beds shall be sized using a minimum 850 square feet of bottom surface area per 150 gallons of projected daily sewage flow in areas where annual precipitation is 15 to 25 inches, or 600 square feet of bottom surface area per 150 gallons of projected daily sewage flow in areas where annual precipitation is less than 15 inches;
  - (b) Beds shall be installed not less than 12 inches nor deeper than 24 inches into natural fine textured soil on the downhill side and not more than 36 inches deep on the uphill side;
  - (c) A minimum of one distribution pipe shall be placed in each bed;
  - (d) The surface shall be seeded according to permit conditions;
  - (e) The bottom of the system shall be a minimum of 6 inches above the layer that limits effective soil depth;
  - (f) Laterals in the system shall not be further than 10 feet apart and shall not be further than 5 feet from the side of the excavated bed or trench;
  - (g) The bed or trench shall be within 2 inches of level;
  - (h) A minimum of 12 inches of drain media is to be installed in the trench;
  - (i) Filter fabric or material approved by the Agent shall cover the drain media before the system is covered with soil;
  - (j) The system is to be covered with soil approved by the Agent. The soil cover depth is to be a minimum of 12 inches.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615 & ORS 454.775

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

### **340-071-0275**

#### **Pressurized Distribution Systems**

- (1) Pressurized distribution systems receiving residential strength wastewater may be permitted on any site meeting the requirements for installation of a standard subsurface sewage disposal systems, or other sites where this method of effluent distribution is preferable and all the following minimum site conditions can be met.

- (2) Except as provided in OAR 340-071-0220(1)(c), pressurized distribution systems shall be used where depth to soil as defined in OAR 340-071-0100(139)(a) and (b) is less than thirty-six (36) inches and the minimum separation distance between the bottom of the disposal trench and soil as defined in OAR 340-071-0100(139)(a) and (b) is less than eighteen (18) inches.
- (3) Pressurized distribution systems installed in soil as defined in OAR 340-071-0100(139)(a) and (b) in areas with permanent water tables shall not discharge more than four hundred fifty (450) gallons of effluent per one-half (1/2) acre per day except where:
  - (a) Groundwater is degraded and designated as a non-developable resource by the State Department of Water Resources;  
or
  - (b) A detailed hydrogeological study discloses loading rates exceeding four hundred fifty (450) gallons per one-half (1/2) acre per day would not increase the nitrate-nitrogen concentration in the groundwater beneath the site, or at any down gradient location, above five (5) milligrams per liter.
- (4) Materials and Construction:
  - (a) General:
    - (A) All materials used in pressurized systems shall be structurally sound, durable, and capable of withstanding normal stresses incidental to installation and operation;
    - (B) Nothing in these rules shall be construed to set aside applicable building, electrical, or other codes. An electrical permit and inspection from the Department of Commerce or the municipality with jurisdiction (as defined in ORS 456.750(5)) is required for pump wiring installation.
  - (b) Pressurized Distribution Piping. Piping, valves and fittings for pressurized systems shall meet the following minimum requirements:
    - (A) All pressure transport, manifold, lateral piping, and fittings shall meet or exceed the requirements for PVC 1120 pressure pipe as identified in **ASTM Specification D2241**. For pipe diameters of one inch or less, the minimum pressure rating shall be 200 pounds per square inch (psi); for diameters greater than one inch, the minimum pressure rating shall be 160 psi;
    - (B) Pressure transport piping shall be uniformly supported along the trench bottom, and at the discretion of the Agent, it shall be bedded in sand or other material approved by the Agent. A minimum eighteen (18) gauge green jacketed tracer wire or green color coded metallic locate tape, shall be placed above piping when crossing property lines or entering public property or right of way;
    - (C) Orifices shall be located on top of the pipe, except as noted in paragraph 4(b)(I) of this section;
    - (D) The ends of lateral piping shall be constructed with long sweep elbows or equal method to bring the end of the pipe to ground level. The ends of the pipe shall be provided with threaded plugs or caps;
    - (E) All joints in the manifold, lateral piping, and fittings shall be solvent welded, using the appropriate joint compound for the pipe material. Pressure transport piping may be solvent welded or rubber ring jointed;
    - (F) An isolation valve shall be placed on the pressure transport pipe, in or near the dosing tank, when appropriate;
    - (G) A check valve shall be placed between the pump and the gate valve, when appropriate;
    - (H) All orifices shall be covered by a protective, durable, non-corrosive orifice shield designed to keep orifices from being blocked by drain media or other system components. The shields shall be removable for access to the orifices;
    - (I) Where conditions include but are not limited to, extended freezing temperatures, temporary or seasonal use, or effluent characteristics, the Agent may specify alternate orifice orientation, and/or valve arrangements;
    - (J) Where the operation of a pump could result in siphonage of effluent to below the normal off level of the pump, an anti-siphon measure, in the form of a non-discharging valve, designed for the specific purpose, shall be used. The anti-siphon valve shall be installed and operated in accordance with manufacturer's specifications.
  - (c) Disposal Trench Sizing and Construction:
    - (A) A system using disposal trenches shall be designed and sized in accordance with the requirements of OAR 340-071-0220(2);
    - (B) Disposal trenches shall be constructed using the specifications for the standard disposal trench unless otherwise allowed by the Department on a case-by-case basis;
    - (C) Pressure lateral piping shall have not less than six (6) inches of drain media below, nor less than four (4) inches of drain media above the piping;
    - (D) The top of the drain media shall be covered with filter fabric, or other nondegradable material permeable to fluids that will not allow passage of soil particles coarser than very fine sand. In unstable soils, lining the sidewall may be required.
  - (d) Seepage Bed Construction:

- (A) Seepage beds may only be used in soil as defined in OAR 340-071-0100(139)(b) as an alternative to the use of disposal trenches, for flows less than or equal to 600 gallons per day;
  - (B) The effective seepage area shall be based on the bottom area of the seepage bed. The minimum area shall be determined on the basis of 200 square feet minimum per 150 gallons per day waste flow;
  - (C) Beds shall be installed not less than eighteen (18) inches (twelve (12) inches with a capping fill) nor deeper than thirty-six (36) inches into the natural soil. The seepage bed bottom shall be level;
  - (D) The top of the drain media shall be covered with filter fabric, or other nondegradable material that is permeable to fluids but will not allow passage of soil particles coarser than very fine sand;
  - (E) Pressurized distribution piping shall have not less than six (6) inches of drain media below, nor less than four (4) inches of drain media above the piping;
  - (F) Pressurized distribution piping shall be horizontally spaced not more than four (4) feet apart, and not more than two (2) feet away from the seepage bed sidewall. At least two (2) parallel pressurized distribution pipes shall be placed in the seepage bed;
  - (G) A minimum of ten (10) feet of undisturbed earth shall be maintained between seepage beds.
- (e) Notwithstanding other requirements of this rule, when the projected daily sewage flow is greater than two thousand five hundred (2,500) gallons the Department may approve other design criteria it deems appropriate.
- (5) Hydraulic Design Criteria. Pressurized distribution systems shall be designed for appropriate head and capacity:
- (a) Head calculations shall include maximum static lift, pipe friction and orifice head requirements:
    - (A) Static lift where pumps are used shall be measured from the minimum dosing tank level to the level of the perforated distribution piping;
    - (B) Pipe friction shall be based upon a Hazen Williams coefficient of smoothness of 150. All pressure lateral piping and fittings shall have a minimum diameter of two (2) inches unless submitted plans and specifications show a smaller diameter pipe is adequate;
    - (C) There shall be a minimum head of five (5) feet at the remotest orifice and no more than a ten (10) percent flow variation between nearest and remotest orifice in an individual unit.
  - (b) The capacity of a pressurized distribution system refers to the rate of flow given in gallons per minute (gpm):
    - (A) Lateral piping shall have discharge orifices drilled a minimum diameter of one-eighth (1/8) inch, and evenly spaced at a distance not greater than twenty-four (24) inches in coarse textured soils or greater than four (4) feet in finer textured soils;
    - (B) The system shall be dosed at a rate not to exceed twenty (20) percent of the projected daily sewage flow;
    - (C) The effect of back drainage of the total volume of effluent within the pressure distribution system shall be evaluated for its impact upon the dosing tank and system operation.

[Publications: The Publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615, ORS 454.775 & ORS 468B.080

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 19-1981, f. 7-23-81, ef. 7-27-81; DEQ 5-1982, f. & ef. 3-9-82; DEQ 8-1983, f. & ef. 5-25-83; DEQ 15-1986, f. & ef. 8-6-86; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95 ; DEQ 12-1997, f. & cert. ef. 6-19-97; DEQ 16-1999, f. & cert. ef. 12-29-99

### **340-071-0280**

#### **Seepage Trench System**

- (1) Criteria for Approval. Construction permits may be issued by the Agent for seepage trench systems on lots created prior to January 1, 1974, for sites that meet all the following conditions:
  - (a) Groundwater degradation would not result;
  - (b) Lot or parcel is inadequate in size to accommodate a standard subsurface system disposal trenches with a projected flow of 450 gallons per day;
  - (c) All other requirements for standard subsurface systems can be met.
- (2) Design Criteria:
  - (a) The seepage trench may have a maximum depth of 42 inches;
  - (b) The seepage trench system shall be sized according to the following formula: Length of seepage trench = 4 x (length of standard disposal trench) divided by (3 + 2D), where D = depth of drain media below distribution pipe in feet. Maximum depth of drain media (D) shall be two feet;
  - (c) The projected daily sewage flow shall be limited to a maximum of 450 gallons.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615 & ORS 454.775

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 8-1983, f. & ef. 5-25-83; DEQ 15-1986, f. & ef. 8-6-86; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

### 340-071-0285

#### Redundant Systems

- (1) Criteria for Approval. Construction installation permits may be issued by the Agent for redundant disposal field systems to serve single family dwellings on sites that meet all the following conditions:
  - (a) The lot or parcel was created prior to January 1, 1974; and
  - (b) There is insufficient area to accommodate a standard system.
- (2) Design Criteria:
  - (a) Each redundant disposal system shall contain two complete disposal fields;
  - (b) Each disposal field shall be adequate in size to accommodate the projected daily sewage flow from the dwelling;
  - (c) A minimum separation of 10 feet 12 feet on centers) shall be maintained between disposal trenches designed to operate simultaneously, and a minimum separation of 4 feet (6 feet on centers) shall be maintained between adjacent disposal trenches;
  - (d) The system shall be designed to alternate between the disposal fields with the use of a diversion valve or other method approved by the Agent.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615 & ORS 454.775

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

### 340-071-0290

#### Conventional Sand Filter Systems

- (1) Criteria for Approval. A conventional sand filter, which meets the requirements of this rule may be approved for a construction-installation permit, provided that wastewater strength does not exceed that of residential strength wastewater and the system is to serve a single family dwelling. All others shall be constructed pursuant to a WPCF Permit.
- (2) Inspection and Maintenance Requirements.
  - (a) Each sand filter system installed under this rule, and those filters installed under OAR 340-071-0038, may be inspected by the Agent periodically. The Agent may charge an inspection fee each year the sand filter is inspected;
  - (b) Any permit issued by the Agent shall include requirements for periodic inspection and maintenance. Reports of this maintenance may be required to be submitted to the Agent.
- (3) Sites Approved for Sand Filter Systems. Sand filters may be permitted on any site meeting requirements for standard subsurface sewage disposal systems contained under OAR 340-071-0220, or where standard or pressurized disposal trenches would be used, and all the following minimum site conditions can be met:

**NOTE:** Groundwater levels shall be predicted using Standards in OAR 340-071-0130(24).

- (a) The high level attained by a temporary groundwater table would be:
  - (A) Twelve (12) inches, but less than eighteen (18) inches below ground surface, on sites where:
    - (i) The ground slope does not exceed twelve (12) percent; and
    - (ii) Equal distribution methods are used (achieved by gravity or through the use of either a hydrosplitter or pressurized distribution method); and
    - (iii) A capping fill is placed in accordance with OAR 340-071-0265(2) and OAR 340-071-0265(3)(a through c).
  - (B) Eighteen (18) inches or more below ground surface, on sites where equal distribution methods are used. Equal distribution may be achieved by gravity, or through the use of a hydrosplitter or pressurized distribution method;
  - (C) Twenty-four (24) inches or more below ground surface, on sites where serial distribution methods are used;

**NOTE:** In no instance shall a disposal trench be installed deeper than the highest level of the temporary water table. The minimum backfill depth within the disposal trenches shall be six (6) inches for trenches using equal distribution methods, & twelve (12) inches for trenches using serial distribution.

- (b) The highest level attained by a permanent water table would be equal to or more than distances specified as follows:  
SOIL GROUPS -- \*MINIMUM SEPARATION DISTANCE FROM BOTTOM OF EFFECTIVE SEEPAGE AREA
  - (A) Gravel, sand, loamy sand, sandy loam -- 24 inches;

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(B) Loam, silt loam, sandy clay loam, clay loam -- 18 inches;

(C) Silty clay loam, silty clay, clay, sandy clay -- 12 inches.

**\*NOTE:** Shallow disposal trenches (placed not less than twelve (12) inches into the original soil profile) may be used with a capping fill to achieve separation distances from permanent groundwater. The fill shall be placed in accordance to the provisions of OAR 340-071-0265(2) & 340-071-0265(3)(a) through (c).

(c) Sand filters installed in soils as defined in OAR 340-071-0100(139), in areas with permanent water tables shall not discharge more than four hundred fifty (450) gallons of effluent per one-half (1/2) acre per day except where:

(A) Groundwater is degraded and designated as a non-developable resource by the State Department of Water Resources; or

(B) A detailed hydrogeological study discloses loading rates exceeding four hundred fifty (450) gallons per one-half (1/2) acre per day would not increase nitrate-nitrogen concentration in the groundwater beneath the site, or any down gradient location, above five (5) milligrams per liter.

(d) Soils, fractured bedrock or saprolite diggable with a backhoe occur such that a standard twenty-four (24) inch deep trench can be installed and, in the judgment of the Agent, the soils, fractured bedrock, or saprolite is permeable to the extent that effluent will absorb adequately so as not to hinder the performance of the filter or disposal field. The Agent may require that an absorption test be conducted to determine the permeability of the bedrock or saprolite. Test methods must be acceptable to the Department;

(e) Where slope is thirty (30) percent or less, except as specified in subsection (f) of this section;

(f) A sand filter may be installed on land slopes up to 45 percent where:

(A) The installation is for a single family dwelling and is sized in accordance with sand filter disposal area criteria;

(B) The soil is diggable with a backhoe to a depth of at least 36" (12" below the bottom of the trench); and

(C) The temporary water table is at least 30" below the ground surface (6" below the bottom of the trench).

(g) Setbacks in **Table 1** can be met, except the minimum separation distance between the sewage disposal area and surface public waters shall be no less than fifty (50) feet.

(4) The minimum length of standard disposal trench per one hundred fifty (150) gallons projected daily sewage flow required for a sand filter absorption facility is indicated in the following table: SOIL GROUPS -- LINEAR FEET

(a) Gravel, sand, loamy sand, sandy loam -- 35;

(b) Loam, silt loam, sandy clay loam, clay loam -- 45;

(c) Silty clay loam, silty clay, sandy clay, clay -- 50;

(d) Permeable saprolite or fractured bedrock -- 50;

(e) High shrink-swell clays (Vertisols) -- 75

**NOTES:**

-1- Disposal trenches in Vertisols shall contain twenty-four (24) inches of drain media and twenty-four (24) inches of soil backfill.

-2- On lots created prior to January 1, 1974, that have insufficient suitable area within which to install an absorption facility sized in accordance with this table, seepage trenches may be used at the Agent's discretion, providing: the design criteria and limitations contained in OAR 340-071-0280(2) are met; the soil is not a high shrink-swell clay; and all other provisions of this rule are met except that a temporary water table shall be thirty (30) inches or more below the ground surface.

-3- Seepage trenches in Vertisols are limited to areas with an annual rainfall of 25 inches or less, with minimum slopes of 5 percent, and a temporary water table which is at least 48 inches below the ground surface.

(5) Sand Filter Without a Bottom. Sites with saprolite, fractured bedrock, gravel or soil textures of sand, loamy sand, or sandy loam in a continuous section at least two (2) feet thick in contact with and below the bottom of the sand filter, that meet all other requirements of section 340-071-0290(3) may, utilize either a conventional sand filter without a bottom or a sand filter in a trench that discharges biologically treated effluent directly into those materials. The application rate shall be based on the design sewage flow in OAR 340-071-0295(1) and the basal area of the sand in either type of sand filter. A minimum twenty-four (24) inch separation shall be maintained between a water table and the bottom of the sand filter. The water table shall be no less than 24 inches below the ground surface at any time of the year. In the judgment of the Agent, the saprolite, fractured bedrock, gravel or soil, shall be permeable over the basal area to the extent that effluent will absorb adequately so as not to hinder the performance of the filter. The Agent may require that an absorption test be conducted to determine the permeability of the basal area. Test methods must be acceptable to the Department.

(6) Materials and Construction:

(a) All materials used in sand filter system construction shall be structurally sound, durable and capable of withstanding normal installation and operation stresses. Component parts subject to malfunction or excessive wear shall be readily accessible for repair and replacement;

(b) All filter containers shall be placed over a stable level base;

- (c) In a gravity operated distribution system, the invert elevation of the outlet end of the underdrain pipe shall be at or above the final settled ground elevation of the highest disposal area;
  - (d) Piping and fittings for the sand filter distribution system shall be as required under pressure distribution systems, OAR 340-071-0275;
  - (e) The specific requirements for septic tanks, dosing tanks, etc. are found in OAR 340-071-0220;
  - (f) The requirements in OAR 340-071-0295 shall be met;
  - (g) A bottomless sand filter unit does not require a minimum 10 foot separation between the original and replacement unit.
- (7) "Gravel-less Absorption Method":
- (a) Following a sand filter, disposal trenches may be constructed without the use of drain media, to the following minimum criteria:
    - (A) Twelve (12) inches wide by ten (10) inches deep incorporating pressurized distribution and a chamber constructed of half sections of twelve (12) inch diameter plastic irrigation pipes (PIP);
    - (B) Trenches shall be level end to end and across their width;
    - (C) At the discretion of the Agent, trenches may be installed on minimum three (3) foot centers maintaining at least two (2) feet of undisturbed earth between parallel trench sidewalls;
    - (D) Piping shall be minimum one inch diameter PVC meeting all the requirements of these rules;
    - (E) Distribution piping shall be perforated with one-eighth inch diameter orifices on maximum two foot centers at the twelve o'clock position. The hydraulic design shall provide at least two feet residual head at the distal orifice; and
    - (F) The chambers shall have an adequate footing to support the soil cover and all normal activity, and at a minimum shall be constructed of twelve inch PIP rated at 43 pounds per square inch meeting the appendix standards of **ASTM D-2241**. Each line shall be equipped with a minimum six inch diameter inspection port.
  - (b) Except as noted in subsection (a) of this section, all other construction and siting criteria including but not limited to the disposal field sizing for sand filter systems in OAR 340-071-0290(4), and area to accommodate the installation of an initial and replacement absorption facility meeting standard trench separations in OAR 340-071-0220(7)(a)(D), shall apply. Plans verifying that a system could be installed on the parcel that will meet the requirements in OAR 340-071-0290(4) and 340-071-0220(7)(a)(D) and all other applicable rules, are required before approval of this method.
  - (c) This disposal field option may be used wherever a standard or alternative type disposal trench is authorized by current rules for sand filter systems, except for Vertisols.

[ED. NOTE: The Table(s) referenced in this rule is not printed in the OAR Compilation. Copies are available from the agency.]

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615, ORS 454.775 & ORS 454.780

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 19-1981, f. 7-23-81, ef. 7-27-81; DEQ 19-1981, f. 7-23-81, ef. 7-27-81; DEQ 5-1982, f. & ef. 3-9-82; DEQ 8-1983, f. & ef. 5-25-83; DEQ 9-1984, f. & ef. 5-29-84; DEQ 15-1986, f. & ef. 8-6-86; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95; DEQ 12-1997, f. & cert. ef. 6-19-97; DEQ 16-1999, f. & cert. ef. 12-29-99;

Administrative correction 2-16-00

### 340-071-0295

#### Conventional Sand Filter Design and Construction

##### (1) Sewage Flows:

- (a) Design sewage flows for a system proposed to serve a commercial facility shall be limited to twenty-five hundred (2,500) gallons or less, with a wastewater strength not to exceed that defined for residential strength wastewater, unless otherwise authorized in writing by the Department;
- (b) Design sewage flows for a system proposed to serve a single family dwelling shall be in accordance with the provisions of OAR 340-071-0220(2)(a).

##### (2) Minimum Filter Area:

- (a) A sand filter proposed to serve a single family dwelling shall have an effective medium sand surface area of not less than three hundred sixty (360) square feet. If the design sewage flow exceeds four-hundred fifty (450) gallons per day, the medium sand surface area shall be determined with the following equation: **Area = (projected daily sewage flow) divided by (1.25) gallons per square foot;**
- (b) A sand filter proposed to serve a commercial facility shall be sized on the basis of projected peak daily sewage flow. If the waste strength is projected to be greater than residential strength wastewater, as defined in this division, a pre-

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treatment device shall be required which will reduce the BOD<sub>5</sub>, TSS, and oil and grease to no more than 300, 150, and 25 mg/l, respectively, and to eliminate any other contaminants prior to treatment in the sand filter system.

(3) Design Criteria:

- (a) The interior base of the filter container shall be level or constructed at a grade of one (1) percent or less to the underdrain piping elevation;
- (b) Except for sand filters without a bottom, underdrain piping shall be installed in the interior of the filter container at the lowest elevation. The piping shall be level or on a grade of one (1) percent or less to the point of passage through the filter container;
- (c) The underdrain piping and bottom of the filter container with the underdrain piping in place shall be covered with a minimum of six (6) inches of drain media or underdrain media. Where underdrain media is used, the underdrain piping shall be enveloped in an amount and depth of drain media to prevent migration of the underdrain media to the pipe perforations;
- (d) Where drain media is used at the base of the filter, it shall be covered by a layer of filter fabric meeting the specifications found in OAR 340-073-0041. Where underdrain media is used, filter fabric is not required or prescribed;
- (e) A minimum of twenty-four (24) inches of approved sand filter media shall be installed over the filter fabric or underdrain media. The sand filter media shall be damp at the time of installation. The top surface of the media shall be level. Unless waived by the Agent, the sand filter media proposed for each sand filter shall be sieve tested to determine conformance with the criteria outlined in OAR 340-071-0100(116), and the report of analysis shall be provided to the Agent;
- (f) There shall be a minimum of three (3) inches of clean drain media below the distribution laterals, and sufficient media above the laterals equal to or covering the orifice shields to provide a smooth even cover. Underdrain media may be used in lieu of drain media;
- (g) Within the zone described in subsection (f) of this section, a pressurized distribution system, meeting the requirements of OAR 340-071-0275(4) and (5), shall be constructed, with the following requirements:
  - (A) Distribution laterals shall be spaced on maximum thirty (30) inch centers. Orifices shall be spaced no more than thirty (30) inches apart;
  - (B) The distribution laterals shall have not less than three (3) inches of drain or underdrain media below the piping;
  - (C) The ends of the distribution laterals shall be designed and constructed with a means to perform flushing of the piping, collectively or individually, through the operation of a non-corrosive and accessible valve or threaded endcap. The valve or endcap must be easily accessible. The flushed effluent may be discharged to the septic tank or into the sand filter;
  - (D) The diameters of the distribution manifold and laterals shall not be less than one half (1/2) inch diameter.
  - (E) A sand filter shall be dosed at a rate not to exceed ten (10) percent of the projected daily sewage flow.
- (h) The top of the media in which the pressure distribution system is installed shall be covered with filter fabric meeting the specifications found in OAR 340-073-0041;
- (i) The top of the sand filter area shall be backfilled with a soil cover, free of rock, vegetation, wood waste, etc. The soil cover shall have a textural class no finer than loam, unless otherwise authorized by the Agent. The soil cover shall have a minimum depth of six (6) inches and a maximum depth of twelve (12) inches;
- (j) The passage of all piping through the sand filter container shall be done in a watertight manner.

(4) Container Design and Construction:

- (a) A reinforced concrete container consisting of watertight walls and floors shall be used where water tightness is necessary to prevent groundwater from infiltrating into the filter or to prevent the effluent from exfiltrating from the filter, except as provided in these rules. The container structure may require a building permit for construction;
- (b) Container may be constructed of materials other than concrete where equivalent function, workmanship, watertightness and at least a twenty (20) year service life can be documented:
  - (A) Flexible membrane liner (FML) materials must have properties which are at least equivalent to thirty (30) mil unreinforced polyvinyl chloride (PVC) described in OAR 340-073-0085. To be approved for installation, FML materials must:
    - (i) Have field repair instructions and materials which are provided to the purchaser with the liner; and
    - (ii) Have factory fabricated "boots" suitable for field bonding onto the liner to facilitate the passage of piping through the liner in a waterproof manner.
  - (B) Where accepted for use, flexible sheet membrane liners shall be installed as required in OAR 340-073-0085.

- (5) Internal Pump Option: Where the effluent from a sand filter is to be discharged by means of a pump to another treatment unit, a distribution unit, or to an absorption facility, the design and construction of the filter may include provisions for an internal pump station, providing the following conditions are met:

- (a) The location, design, and construction of the pump station does not conflict with rules for design, construction and operation of a sand filter system;
- (b) The design and construction of the pump, discharge plumbing, controls, and alarm shall meet the requirements of OAR 340-073-0055, except OAR 340-073-0055(4)(d) and (4)(h);
- (c) The pump and related apparatus shall be housed in a corrosion resistant vault designed to withstand the stresses places upon it and not allow the migration of drain media, sand, or underdrain media to its interior. The vault shall have a durable, affixed floor. The vault shall provide watertight access to finished grade with a diameter equal to that of the vault and designed to receive treated effluent from an elevation equal to that of a gravity discharging sand filter;
- (d) The depth of underdrain media and the operating level of the pump cycle and alarm shall not allow effluent to come within two inches of the bottom of the sand filter media. The pump off level shall be no lower than the invert of the perforations of the underdrain piping;
- (e) The internal sand filter pump shall be electrically linked to the sand filter dosing apparatus in such a manner as to prevent effluent from entering the sand filter in event the internal sand filter pump fails.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615, ORS 454.775 & ORS 454.780

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 5-1982, f. & ef. 3-9-82; DEQ 15-1986, f. & ef. 8-6-86; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95; DEQ 12-1997, f. & cert. ef. 6-19-97; DEQ 16-1999, f. & cert. ef. 12-29-99

### **340-071-0600**

#### **Sewage Disposal Service**

- (1) No person shall perform sewage disposal services or advertise or represent himself/herself as being in the business of performing such services without first obtaining a business license from the Department. Unless suspended or revoked at an earlier date, a Sewage Disposal Service business license issued pursuant to this rule expires on July 1 next following the date of issuance. Beginning January 1, 2002, in order to be licensed, the applicant for a license with an installer endorsement must provide evidence that at least one individual working for the business has passed a written examination to demonstrate a minimally adequate knowledge of the on-site rules found in OAR Chapter 340, Divisions 071 and 073, or attend a Department approved training session covering the rules. In addition, the person at the job-site who supervises or is responsible for the construction or installation of the system shall also pass the written test or attend the training session. The Department will provide all persons who pass the test or attend the training session with a wallet size card for this purpose. People required to be certified shall be able to readily produce evidence of certification when asked to do so by the Agent. Recertification is required every five (5) years, and may be accomplished by attending pertinent training sessions, workshops, or through other methods acceptable to the Department.
- (2) Two types of license endorsements may be issued:
  - (a) Installer. Businesses licensed with this endorsement may construct or install on-site systems or parts of on-site systems, and/or do the grading, excavating, and earth-moving work associated with the construction or installation of on-site systems;
  - (b) Pumper. Businesses licensed with this endorsement may pump out and clean on-site sewage disposal systems, portable toilets, or any part thereof, and dispose of the material derived from the pumping out or cleaning of on-site systems and portable toilets.
- (3) Those persons making application for a sewage disposal service business license shall:
  - (a) Submit a complete license application form to the Department for each business; and
  - (b) File and maintain with the Department original evidence of surety bond, or other approved equivalent security, in the penal sum of two thousand five hundred dollars (\$2,500) for each business; and
  - (c) Shall have pumping equipment inspected by the Agent annually if intending to pump out or clean systems and shall complete the "Sewage Pumping Equipment Description/Inspection" form supplied by the Department. An inspection performed after January 1st shall be accepted for licensing the following July 1st; and
  - (d) Submit the appropriate fee as set forth in subsection 340-071-0140(1)(h) for each business; and
  - (e) Except as provided in section (1) of this rule, furnish evidence that at least one individual working for the business has passed the written examination or attended a Department approved training session as described in section 1 of this rule; and
  - (f) If operating a septage pumping service, submit summary origin-destination pumping information on a form supplied by the Department.
- (4) A Sewage Disposal Service business license may be transferred or amended during the license period to reflect changes in business name, ownership, or entity (i.e., individual, partnership, or corporation), providing:



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- (a) A complete application to transfer or amend the license is submitted to the Department with the appropriate fee as set forth in OAR 340-071-0140(1)(h); and
  - (b) The Department is provided with a rider to the surety, or a new form of security as required in subsection (3)(b) of this rule; and
  - (c) A valid Sewage Disposal Service business license (not suspended, revoked, or expired) is returned to the Department; and
  - (d) If there is a change in the business name, a new "Sewage Pumping Equipment Description/Inspection" form for each vehicle is submitted to the Department; and
  - (e) No person who takes over a Sewage Disposal Service business shall operate the business until evidence is provided to the Department that at least one individual working for the business has passed the written examination or attended the Department approved training session as described in section (1) of this rule. Businesses that have only the pumper endorsement described in subsection (2)(b) of this rule are exempt from this requirement.
- (5) The type of security to be furnished pursuant to OAR 340-071-0600(3)(b) may be:
- (a) Surety bond executed in favor of the State of Oregon on a form approved by the Attorney General and provided by the Department. The bond shall be issued by a surety company licensed by the Insurance Commissioner of Oregon. Any surety bond shall be so conditioned that it may be canceled only after forty-five (45) days notice to the Department, and to otherwise remain in effect for not less than two (2) years following termination of the sewage disposal service license, except as provided in subsection (e) of this section; or
  - (b) Insured savings account irrevocably assigned to the Department, with interest earned by such account made payable to the depositor; or
  - (c) Negotiable securities of a character approved by the State Treasurer, irrevocably assigned to the Department, with interest earned on deposited securities made payable to the depositor;
  - (d) Any deposit of cash or negotiable securities under ORS 454.705 shall remain in effect for not less than two (2) years following termination of the sewage disposal service license except as provided in subsection (e) of this section. A claim against such security deposits must be submitted in writing to the Department, together with an authenticated copy of:
    - (A) The court judgment or order requiring payment of the claim; or
    - (B) Written authority by the depositor for the Department to pay the claim.
  - (e) When proceedings under ORS 454.705 have been commenced while the security required is in effect, such security shall be held until final disposition of the proceedings is made. At that time claims will be referred for consideration of payment from the security so held.
- (6) Each licensee shall:
- (a) Be responsible for any violation of any statute, rule, or order of the Commission or Department pertaining to his licensed business;
  - (b) Be responsible for any act or omission of any servant, agent, employee, or representative of such licensee in violation of any statute, rule, or order pertaining to his license privileges;
  - (c) Deliver to each person for whom he performs services requiring such license, prior to completion of services, a written notice which contains:
    - (A) A list of rights of the recipient of such services which are contained in ORS 454.705(2); and
    - (B) Name and address of the surety company which has executed the bond required by ORS 454.705(1); or
    - (C) A statement that the licensee has deposited cash or negotiable securities for the benefit of the Department in compensating any person injured by failure of the licensee to comply with ORS 454.605 to 454.745 and with rules of the Environmental Quality Commission.
  - (d) Keep the Department informed on company changes that affect the license, such as business name change, change from individual to partnership, change from partnership to corporation, change in ownership, etc.
- (7) Misuse of License:
- (a) No sewage disposal service business shall allow anyone to perform sewage disposal services under its license, except a person who is working as an employee of the business;
  - (b) No business shall:
    - (A) Display or cause or permit to be displayed, or have in its possession any license, knowing it to be fictitious, revoked, suspended or fraudulently altered;
    - (B) Fail or refuse to surrender to the Department any license which has been suspended or revoked;
    - (C) Give false or fictitious information or knowingly conceal a material fact or otherwise commit a fraud in any license application.
- (8) Pumping and Cleaning Responsibilities:

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- (a) Businesses performing the service of pumping or cleaning of sewage disposal facilities shall avoid spilling of sewage while pumping or while in transport for disposal.
- (b) Any spillage of sewage shall be immediately cleaned up by the operator and the spill area shall be disinfected.
- (9) License Suspension or Revocation:
  - (a) The Department may suspend, revoke, or refuse to grant, or refuse to renew, any sewage disposal service license if it finds:
    - (A) A material misrepresentation or false statement in connection with a license application; or
    - (B) Failure to comply with any provisions of ORS 454.605 through 454.785, the rules of the Environmental Quality Commission or an order of the Commission or Department; or
    - (C) Failure to maintain in effect at all times the required bond or other approved equivalent security, in the full amount specified in ORS 454.705; or
    - (D) Nonpayment by drawee of any instrument tendered by applicant as payment of license fee.
  - (b) Whenever a license is suspended, revoked or expires, the business shall remove the license from display and remove all Department identifying labels from equipment. The business shall surrender the suspended or revoked license, and certify in writing to the Department within fourteen (14) days after suspension or revocation that all Department identification labels have been removed from all equipment;
  - (c) A sewage disposal service business may not be considered for re-licensure for a period of at least one (1) year after revocation of its license;
  - (d) A suspended license may be reinstated, providing:
    - (A) A complete application for reinstatement of license is submitted to the Department, accompanied by the appropriate fee as set forth in OAR 340-071-0140(1)(h); and
    - (B) The grounds for suspension have been corrected; and
    - (C) The original license would not have otherwise expired.
- (10) Equipment Minimum Specifications:
  - (a) Tanks for pumping out of sewage disposal facilities shall comply with the following:
    - (A) Have a liquid capacity of at least five hundred fifty (550) gallons.

**EXCEPTION:** Tanks for equipment used exclusively for pumping chemical toilets not exceeding eighty (80) gallons capacity, shall have a liquid capacity of at least one hundred fifty (150) gallons.

    - (B) Be of watertight metal construction;
    - (C) Be fully enclosed;
    - (D) Have suitable covers to prevent spillage.
  - (b) The vehicle shall be equipped with either a vacuum or other type pump which will not allow seepage from the diaphragm or other packing glands and which is self priming;
  - (c) The sewage hose on vehicles shall be drained, capped, and stored in a manner that will not create a public health hazard or nuisance;
  - (d) The discharge nozzle shall be:
    - (A) Provided with either a camlock quick coupling or threaded screw cap;
    - (B) Sealed by threaded cap or quick coupling when not in use;
    - (C) Located so that there is no flow or drip onto any portion of the vehicle;
    - (D) Protected from accidental damage or breakage.
  - (e) No pumping equipment shall have spreader gates;
  - (f) Each vehicle shall at all times be supplied with a pressurized wash water tank, disinfectant, and implements for cleanup;
  - (g) Pumping equipment shall be used for pumping sewage disposal facilities exclusively unless otherwise authorized in writing by the Agent;
  - (h) Chemical toilet pumping equipment shall not be used for any other purpose if the pump tank has a liquid capacity of less than 550 gallons.
- (11) Equipment Operation and Maintenance:
  - (a) When in use, pumping equipment shall be operated in a manner so as not to create public health hazards or nuisances;
  - (b) Equipment shall be maintained in a reasonably clean condition at all times.
- (12) Vehicles shall be identified as follows:
  - (a) Display the name or assumed business name on each vehicle cab and on each side of a tank trailer:
    - (A) In letters at least three (3) inches in height; and
    - (B) In a color contrasting with the background.
  - (b) Tank capacity shall be printed on both sides of the tank:

- (A) In letters at least three (3) inches in height; and
  - (B) In a color contrasting with the background.
  - (c) Labels issued by the Department for each current license period shall be displayed at all times at the front, rear, and on each side of the "motor vehicle" as defined by **United States Department of Transportation Regulations, Title 49 U.S.C.**
- (13) Disposal of Septage. Each business shall:
- (a) Discharge no septage upon the surface of the ground unless approved by the Department in writing;
  - (b) Dispose of septage only in disposal facilities approved by the Department;
  - (c) Possess at all times during pumping, transport or disposal of septage, origin-destination records for sewage disposal services rendered;
  - (d) Maintain on file, for not less than three (3) years, complete origin-destination records for sewage disposal services rendered. The records must be made available for review upon the request of the Department. Origin-Destination records shall include:
    - (A) Source of septage on each occurrence, including name and address;
    - (B) Specific type of material pumped on each occurrence;
    - (C) Quantity of material pumped on each occurrence;
    - (D) Name and location of authorized disposal site, where septage was deposited on each occurrence;
    - (E) Quantity of material deposited on each occurrence.
  - (e) Transport septage in a manner that will not create a public health hazard or nuisance;
  - (f) Possess a current septage management plan, approved by the Department. The plan shall be kept current, with any revisions approved by the Department before implementation;
  - (g) Comply with the approved septage management plan, and the septage management plan approval letter issued by the Department.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 454.615, ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615, ORS 454.625 & ORS 468.020

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 32-1981(Temp), f. & ef. 12-8-81; DEQ 5-1982, f. & ef. 3-9-82; DEQ 8-1983, f. & ef. 5-25-83; DEQ 9-1984, f. & ef. 5-29-84; DEQ 15-1986, f. & ef. 8-6-86; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95; DEQ 10-1996(Temp), f. & cert. ef. 7-16-96; DEQ 12-1997, f. & cert. ef. 6-19-97; Administrative correction 1-28-98; DEQ 16-1999, f. & cert. ef. 12-29-99

### **340-071-0300**

#### **Other Sand Filter Designs**

- (1) Other sand filters which vary in design from the conventional sand filter may be authorized by the Department if they can be demonstrated to produce comparable effluent quality.
- (2) Sand filters authorized under this Section, which serve a single family dwelling with residential strength wastewater, may be approved for a construction/installation permit. All other sand filters shall be constructed and operated under a renewable WPCF permit issued pursuant to OAR 340-071-0162.
- (3) Pre-Application Submittal. Prior to applying for a construction permit for a variation to the conventional sand filter the Department must approve the design. To receive approval the applicant shall submit the following required information to the Department:
  - (a) Effluent quality data. Filter effluent quality samples shall be collected and analyzed by a testing agency acceptable to the Department using procedures identified in the latest edition of "**Standard Methods for the Examination of Wastewater**," published by the American Public Health Association, Inc. The duration of filter effluent testing shall be sufficient to ensure results are reliable and applicable to anticipated field operating conditions. The length of the evaluation period and number of data points shall be specified in the test report. The following parameters shall be addressed:
    - (A) BOD<sub>5</sub>;
    - (B) TSS;
    - (C) Fecal coliform;
    - (D) Nitrogen (Ammonia, Nitrate and Total Kjeldahl Nitrogen).
  - (b) A description of unique technical features and process advantages;
  - (c) Design criteria, loading rates, etc.;
  - (d) Filter media characteristics;
  - (e) A description of operation and maintenance details and requirements;
  - (f) Any additional information specifically requested by the Department.

- (4) Construction Procedure. Following preapplication approval, a permit application shall be submitted in the usual manner. Applications shall include applicable drawings, details and written specifications to fully describe proposed construction and allow system construction by contractors. Included must be the specific site details peculiar to that application, including soils data, groundwater type and depth, slope, setbacks, existing structures, wells, roads, streams, etc. Applications shall include a manual for homeowner operation and maintenance of the system.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the office of the agency.]

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615, ORS 454.775, ORS 454.780, ORS 468.065, ORS 468B.050 & ORS 468B.055

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 15-1986, f. & ef. 8-6-86; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

### **340-071-0302**

#### **Recirculating Gravel Filter (RGF)**

- (1) WPCF Permit Required. A WPCF wastewater disposal permit is required for all recirculating gravel filters. The permit will establish the effluent limitations to be achieved. No construction shall take place until the permit has been issued and final construction plans have been approved by the Department. Conceptual (preliminary) plans shall accompany all applications.
- (2) Plan Approval Required. Facility construction plans shall be submitted to the Department for review. Review of plans shall follow OAR Chapter 340, Division 52 procedures.
- (3) Technical Requirements and Guidelines. The following sections describe minimum technical requirements and guidelines for design. Use of "shall" denotes a requirement. Use of "should" implies a guideline to be followed unless sufficient justification is provided to the contrary as determined by the plan approver. The Department will consider variations in design established in this section on a case-by-case basis. Plans which vary in design shall include evidence that the proposed system will meet the limitations established in the permit, and that the facility can be reliably operated and maintained.
- (a) Filter Design and Dosing:
- (A) Filter area shall be sized based on a maximum organic load. The area shall mean basal or bottom area. For residential strength waste-water which has been pretreated through a septic tank, the maximum hydraulic load shall be 5 gal/ft<sup>2</sup>/day;
  - (B) For BOD<sub>5</sub> waste strengths stronger than residential strength wastewater but not exceeding 400 mg/l (milligrams per liter), the filter size shall be increased proportionately.
  - (C) Higher strength wastewaters shall be pre-treated or will require special consideration. The concentration of greases and oil applied shall in no case exceed 30 mg/l.
- (b) Filter Media;
- (A) Where carbonaceous BOD<sub>5</sub> removal must be at least 85 percent, based upon the raw sewage concentration applied to the septic tank, and nitrification of wastewater is necessary, a filter media of the following fine gravel shall be required: 3 feet of very fine washed gravel, 100 percent passing a 3/8 inch sieve with an Effective Size between 3 and 5 millimeters, and an Uniformity Coefficient of 2 or less. Washed shall mean that negligible fines (less than 1.0%) pass the No. 10 sieve;
  - (B) Where additional removal of BOD<sub>5</sub> and denitrification is intended or required, a treatment media of the following coarse sand may be approved: 2 feet of very coarse washed sand, 100 percent passing a 3/8 inch sieve with an Effective Size between 1.5 and 2.5 millimeters, and an Uniformity Coefficient of 2 or less. Washed shall mean that negligible fines (less than 4.0%) pass the No. 100 sieve;
  - (C) Sieves used in gradation analysis shall include 3/8 inch, 1/4 inch, and Nos. 4, 6, 8, 10, 50 and 100;
  - (D) For each project and prior to shipment of any media to the project site, the permittee shall take fresh samples of the intended media. The permittee shall have a laboratory gradation analysis performed, and the gradation data plotted on semi-log paper as a gradation curve. Lab data, gradation curve, and a 5 pound sample of the media shall be submitted to the Department for approval. Only Department approved media shall be used;
  - (E) A quality assurance plan shall be proposed by the designer to guarantee only approved media is placed. This plan shall be included in the project specifications;
  - (F) The Department may approve minor deviations in media gradations on a project-by-project basis.
- (c) Filter media shall be overlain by a 3 inch bed of 1/2 inch to 3/4 inch washed gravel. It shall be only lightly covering the distribution piping. Unless otherwise authorized, each orifice is covered by an orifice shield. Orifice shields prevent aerial spray drift;
- (d) Filter dosing shall be with a low pressure distribution piping system operating under adequate head to pressurize the system. This should usually be 5 feet. Each lateral pipe end shall terminate with a screwed plug or cap, accessible

for removal and flushing. Wherever practical a valved backflush system shall be installed to flush groups of laterals back to a septic tank or elsewhere;

- (e) Pressure distribution piping should be spaced 2 feet on center in a parallel grid. Orifice spacing should be each 2 feet on laterals. Piping grid edges should be within one foot of the filter basal edge;
- (f) Filter media shall be underlain by a 6 inch bed of a 3/8 to 3/4 inch washed gravel underdrain media. There shall be no filter fabric over the underdrain media;
- (g) Perforated collection pipes shall be bedded in the underdrain media. Pipes shall be 4 inch minimum diameter with no filter fabric wrap. There should be at least 15 lineal feet of collection pipe for each 225 square feet of filter basal area;
- (h) The filter container shall be watertight to suit the design conditions. Underflow shall be contained. Groundwater shall be excluded. A concrete container may be used. Other materials may be used where equivalent function, workmanship, watertightness and at least a 20 year service life can be expected.

(4) Recirculation/Dilution Tank:

- (a) A recirculation tank receives septic tank effluent and underflow from the filter. A pumping system at this tank delivers flow to the filter dose piping network according to a project design. The recirculation tank volume (measured from tank floor to soffit) shall be numerically equal to the projected daily sewage flow volume;
- (b) The recirculation ratio at design flow shall be not less than 4. Recirculation ratio is the daily volume of recycle divided by design daily volume of the wastewater. A fabricated "T" or "Splitter T" float valve located in the recirculation tank should be used whenever possible. Minimum recirculation tank liquid volume should be no less than 80 percent of the gross tank volume when a float valve is used. Alternatively, a splitter basin using orifice or weir control may be used where required and reasonable to divide underflow 20 percent to disposal and 80 percent to recycle on a daily basis. Orifice control should be used wherever possible. Minimum recirculation tank liquid volume should be no less than 50 percent of the gross tank volume when a splitter basin is used;
- (c) An evaluation and design for overflow and surge control at the recirculation tank shall be included in each design;
- (d) A high water alarm shall be included in the recirculation tank immediately below the overflow level. A latching electrical relay shall retain the alarm -- audible and/or visual -- until acknowledged by a site attendant;
- (e) Parallel pump start/stop electric controls (usually floats) should be installed to correct any unforeseen high liquid level event and keep sewage contained. This pump start function merely precludes overflow and shall operate in parallel with the start/stop function of a timer. It shall not interfere with or depend upon a timer position;
- (f) All areas of the filter should be wetted 48 times a day, or each 30 minutes, to achieve the recirculation ratio of at least 4;
- (g) The recirculation tank shall be demonstrated as watertight. Testing should be witnessed by the designer. Test protocol shall be included in the plans;
- (h) Access onto the filter shall be restricted. This should be a fence. Surface water entry onto the filter shall be positively prevented by design and construction;
- (i) Access openings to the recirculation tank shall be provided at each end. Larger tanks should have additional openings. The least dimension of any access shall be 18 inches. Larger openings shall be provided if partially obstructed with piping, etc. Provisions shall be made to remove dregs (settleable solids). Pumps shall be readily removable and replaceable without demolition of piping, etc.

- (5) Operation and Maintenance (O & M) Manual. The permittee shall submit a draft Operation and Maintenance manual before the facility commences operation. The facility designer should do actual preparation. This manual shall incorporate as-constructed details, and be completed in final form for the owner's use following final inspection of the completed facility. It shall include a statement of Inspection and Certification of Proper Construction. The designer shall affirm that the facility is operating as intended based upon actual field inspection at end of construction and start of operations. If there are any negative findings, these shall be reported and correction proposed by the permittee.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615, ORS 454.780, ORS 468B.050 & ORS 468B.055

Hist.: DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

### **340-071-0305**

#### **Sand Filter System Operation and Maintenance**

- (1) Sand filters serving a single family dwelling with wastewater not exceeding "Residential Waste Strength" shall be subject to the following provisions:
  - (a) Sand filter operation and maintenance tasks and requirements shall be as specified on the Certificate of Satisfactory Completion. Where a conventional sand filter system or other sand filter system with comparable operation and

maintenance requirements is used, the system owner shall be responsible for the continuous operation and maintenance of the system;

- (b) The owner of a sand filter system shall inspect the septic tank and other components of the system at least every 3 years for sludge accumulation, pump calibration and cleaning of the laterals. The septic tank shall be pumped when there is an accumulation of floating scum less than 3 inches above the bottom of the outlet tee or an accumulation of sludge less than 6 inches below the bottom of the outlet tee. A dosing septic tank shall be pumped according to manufacturer's specifications. The owner shall provide the Agent certification of tank pumping within two months of the date required for pumping. Pump calibration, cleaning of the laterals and other maintenance shall be completed as necessary;
  - (c) No permit shall be issued for the installation of any other sand filter which in the judgment of the Department would require operation and maintenance significantly greater than the conventional sand filter unless arrangements for system operation and maintenance meeting the approval of the Director have been made which will ensure adequate operation and maintenance for the life of the system. Each permitted installation may be inspected by the Agent at least every 12 months and checked for necessary corrective maintenance. The Agent may waive the annual system evaluation fee during years when the field evaluation work is not performed;
- (2) Operation and maintenance requirements for sand filters serving Commercial facilities shall be specified in a WPCF permit issued pursuant to OAR 340-071-0162 of this Division.
  - (3) Operation and Maintenance Standards for all sand filters. The owner/purchaser of a sand filter system shall assume the continuous responsibility to preserve the installation as near as practical in its "as built" state. This responsibility includes the control or erosion of any "mound," the control and removal of large perennial plants, the fencing out of livestock and the control of burrowing animals.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615 & ORS 454.780

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 19-1981, f. 7-23-81, ef. 7-27-81; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

### **340-071-0310**

#### **Steep Slope Systems**

- (1) General conditions for approval. On-site system construction permit may be issued by the Agent for a steep slope system to serve a single-family dwelling on slopes in excess of 30 percent provided all the following requirements can be met:
  - (a) Slope does not exceed 45 percent;
  - (b) The soil is well-drained with no evidence of saturation;
  - (c) The soil has a minimum effective soil depth of 60 inches.
- (2) Construction requirements:
  - (a) Seepage trenches shall be installed at a minimum depth of 30 inches and at a maximum depth of 36 inches below the natural soil surface on the downhill side of the trench, and contain a minimum of 18 inches of filter material and 12 inches of native soil backfill;
  - (b) The system shall be sized at a minimum of 75 linear feet per 150 gallons projected daily sewage flow.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615 & ORS 454.775

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 8-1983, f. & ef. 5-25-83; DEQ 9-1984, f. & ef. 5-29-84

### **340-071-0315**

#### **Tile Dewatering System**

- (1) General conditions for approval. On-site system construction permits may be issued by the Agent for tile dewatering systems provided the following requirements can be met:
  - (a) The site has a natural outlet that will allow a field tile installed on a proper grade around the proposed absorption facility to daylight above annual high water;
  - (b) Soils must be silty clay loam or coarser textured and be drainable, with a minimum effective soil depth of at least thirty (30) inches in soils with temporary groundwater, and at least seventy-two (72) inches in soils with permanent groundwater;
  - (c) Slope does not exceed three (3) percent;
  - (d) All other requirements for the system, except depth to groundwater, can be met. However, after the field collection drainage tile is installed, the groundwater levels shall conform to the requirements of OAR 340-071-0220 (1) or 340-071-0290(3).
- (2) Construction Requirements:

- (a) Field collection drainage tile shall be installed on a uniform grade of two-tenths to four-tenths (0.2-0.4) feet of fall per one hundred (100) feet, and either:
  - (A) A minimum of thirty-six (36) inches deep in soils with temporary groundwater; or
  - (B) A minimum of sixty-six (66) inches deep in soils with permanent groundwater.
- (b) Field collection drainage tile trench shall be constructed a minimum twelve (12) inches wide;
- (c) Maximum drainage tile spacing shall be seventy (70) feet center to center;
- (d) Minimum horizontal separation distance between the drainage tile and absorption facility shall be twenty (20) feet;
- (e) Field collection drainage tile shall be rigid smooth wall perforated pipe, or other approved pipe material accepted by the Agent, with a minimum diameter of four (4) inches;
- (f) Field collection drainage tile shall be enveloped in clean filter material to within thirty (30) inches of the soil surface in soils with permanent groundwater, or to within twelve (12) inches of the soil surface in soils with temporary groundwater. Drain media shall be covered with filter fabric, treated building paper or other nondegradable material approved by the Agent;
- (g) Outlet tile shall be rigid smooth wall solid PVC pipe, meeting or exceeding **ASTM Standard D-3034**, with a minimum diameter of four (4) inches. A flap gate or rodent guard may be required by the Agent;
- (h) A silt trap with a twelve (12) inch minimum diameter shall be installed between the field collection drainage tile and the outlet pipe unless otherwise authorized by the Department. The bottom of the silt trap shall be a minimum twelve (12) inches below the invert of the drainage pipe outlet;
- (i) The discharge pipe and tile drainage system are integral parts of the system, but do not need to meet setback requirements to property lines, wells, streams, lakes, ponds or other surface waterbodies;
- (j) The Agent has the discretion of requiring demonstration that a proposed tile dewatering site can be drained prior to issuing a Construction-Installation permit;
- (k) The absorption facility shall use equal or pressurized distribution.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615 & ORS 454.775

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 8-1983, f. & ef. 5-25-83; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95 ; DEQ 12-1997, f. & cert. ef. 6-19-97

### **340-071-0320**

#### **Split Waste Method**

Criteria for Approval. In a split waste method, wastes may be disposed of as follows:

- (1) Black wastes may be disposed of by the use of State Building Codes Division approved nonwater-carried plumbing units such as recirculating oil flush toilets or compost toilets.
- (2) Gray water may be disposed of by discharge to:
  - (a) An existing on-site system which is not failing; or
  - (b) A new on-site system with a soil absorption facility 2/3 normal size. A full size initial disposal area and replacement disposal area of equal size are required; or
  - (c) A public sewerage system.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.610, ORS 454.615 & ORS 454.775

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 8-1983, f. & ef. 5-25-83; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

### **340-071-0325**

#### **Gray Water Waste Disposal Sumps**

(1) Criteria for Approval:

- (a) Hand-carried gray water may be disposed of in gray water waste disposal sumps which serve facilities including but not limited to recreation parks, camp sites or construction sites where the projected daily gray water flow does not exceed ten gallons per unit. Gray water or other sewage shall not be piped to the gray water waste disposal sump. Where projected daily sewage flow exceeds ten gallons per unit, gray water shall be disposed of in facilities meeting requirements of OAR 340-071-0320(2);
  - (b) Gray water sumps may be used only where soil conditions are approved for such use by the Agent;
  - (c) Up to 4 gray water waste disposal sumps may be constructed on the same property and at the same time for each construction-installation permit issued.
- (2) In campgrounds or other public use areas, gray water waste disposal sumps shall be identified as "sink waste disposal" by placard or sign in letters not less than 3 inches in height and in a color contrasting with the background.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.610, ORS 454.615 & ORS 454.775

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 19-1981, f. 7-23-81, ef. 7-27-81; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

### **340-071-0330**

#### **Nonwater-Carried Systems**

(1) No person shall cause or allow the installation or use of a nonwater-carried waste disposal facility without prior written approval of the Agent.

#### **EXCEPTIONS:**

-1- Temporary use pit privies used on farms for farm labor shall be exempt from approval requirements.

-2- A Sewage Disposal Service business licensed pursuant to OAR 340-071-0600 may install portable toilets without written approval of the Agent, providing all other requirements of this rule except Table 8 setbacks are met.

(2) Non-water-carried waste disposal facilities may be approved for temporary or limited use areas, including but not limited to recreation parks, camp sites, farm labor camps, or construction sites, provided all liquid wastes can be handled in a manner to prevent a public health hazard and to protect public waters, provided further that the separation distances in Table 8 can be met.

**EXCEPTION:** The use of portable toilets shall not be allowed for seasonal dwellings.

(3) Construction. Nonwater-carried waste disposal facilities shall be constructed in accordance with requirements contained in OAR 340-073-0065 through 340-073-0075.

(4) Maintenance. Nonwater-carried waste disposal facilities shall be maintained to prevent health hazards and pollution of public waters.

(5) General. No water-carried sewage shall be placed in nonwater-carried waste disposal facilities. Contents of nonwater-carried waste disposal facilities shall not be discharged into storm sewers, on the surface of the ground or into public waters.

(6) Pit Privy:

(a) Unsealed earth pit type privies may be approved where the highest level attained by groundwater shall not be closer than 4 feet to the bottom of the privy pit;

(b) The privy shall be constructed to prevent surface water from running into the pit;

(c) When the pit becomes filled to within 16 inches of the ground surface, a new pit shall be excavated and the old pit shall be backfilled with at least two feet of earth.

(7) No person shall cause or allow the installation or use of a portable toilet unless the pumping or cleaning of the portable toilet is covered by a valid and effective contract with a person licensed pursuant to ORS 454.695. Each portable toilet shall display the business name of the sewage disposal service that is responsible for servicing it.

[ED. NOTE: The Table(s) referenced in this rule is not printed in the OAR Compilation. Copies are available from the agency.]

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615 & ORS 454.775

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 5-1982, f. & ef. 3-9-82; DEQ 8-1983, f. & ef. 5-25-83; DEQ 9-1984, f. & ef. 5-29-84; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

### **340-071-0335**

#### **Cesspools and Seepage Pits**

(1) Except as provided in OAR 340-071-0401, construction of new cesspool sewage disposal systems in Oregon is prohibited.

(2) Seepage pit sewage disposal systems may be used only to serve existing sewage loads and replace existing failing seepage pit and cesspool systems on lots that are inadequate in size to accommodate a standard system or other alternative on-site sewage systems. A construction-installation permit allowing replacement of the failing system shall not be issued if a sewerage system is both legally and physically available, as described in OAR 340-071-0160(5)(f).

(3) Construction Requirements:

(a) Each seepage pit shall be installed in a location to facilitate future connection to a sewerage system when such facilities become available;

(b) Maximum depth of seepage pits shall be 35 feet below ground surface;

(c) The seepage pit depth shall terminate at least 4 feet above the water table.



(4) Notwithstanding the permit duration specified in OAR 340-071-0160(9), a permit issued pursuant to this rule may be effective for a period of less than one year from the date of issue if specified by the agent.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615 & ORS 454.775

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 21-1981(Temp), f. & ef. 9-1-81; DEQ 6-1982(Temp), f. & ef. 3-19-82; DEQ 8-1982, f. & ef. 4-20-82; DEQ 1-1985(Temp), f. & ef. 1-2-85; DEQ 2-1985, f. & ef. 2-1-85; DEQ 8-1986(Temp), f. & ef. 4-29-86; DEQ 16-1986, f. & ef. 9-16-86; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

### **340-071-0340**

#### **Holding Tanks**

- (1) Criteria for Approval. Except as provided in section (5) of this rule, a holding tank requires a WPCF Permit. A WPCF permit for a holding tank may be authorized by the Department on sites that meet all the following conditions:
- (a) Permanent Use:
    - (A) The site cannot be approved for installation of a standard subsurface system; and
    - (B) No community or area-wide sewerage system is available or expected to be available within five (5) years; and
    - (C) The tank is intended to serve a small industrial or commercial building, or an occasional use facility such as a county fair or a rodeo; and
    - (D) Unless otherwise allowed by the Department, the projected daily sewage flow is not more than two hundred (200) gallons; and
    - (E) Setbacks as required for septic tanks can be met.
  - (b) Temporary Use: In an area under the control of a city or other legal entity authorized to construct, operate, and maintain a community or area-wide sewerage system, a holding tank may be installed provided the application for permit includes a copy of a legal commitment from the legal entity that within five (5) years from the date of the application the legal entity will extend to the property covered by the application a community or area-wide sewerage system meeting the requirements of the Commission, and provided further that the proposed holding tank will otherwise comply with the requirements of these rules
- (2) Design and Construction Requirements. Except as provided in section (5) of this rule, holding tanks shall comply with the following:
- (a) Plans and specifications for each holding tank proposed to be installed shall be submitted to the Department for review and approval;
  - (b) Each tank shall have a minimum liquid capacity of fifteen hundred (1,500) gallons;
  - (c) Each tank shall:
    - (A) Comply with standards for tanks contained in OAR 340-073-0025;
    - (B) Be located and designed to facilitate removal of contents by pumping;
    - (C) Be equipped with both an audible and visual alarm, placed in a location acceptable to the Department, to indicate when the tank is seventy-five (75) percent full. The audible alarm only may be user cancelable;
    - (D) Have no overflow vent at an elevation lower than the overflow level of the lowest fixture served;
    - (E) Be designed for antibuoyancy if test hole examination or other observations indicate seasonally high groundwater may float the tank when empty.
- (3) Special Requirements. The application for a WPCF permit shall contain:
- (a) A copy of a contract with a licensed sewage disposal service company which shows the tank will be pumped periodically, at regular intervals or as needed, and the contents disposed of in a manner and at a facility approved by the Department;
  - (b) Evidence that the owner or operator of the proposed disposal facility will accept the pumpings for treatment and disposal.
- (4) Inspection Requirements. Each holding tank regulated through a WPCF permit may be inspected periodically. An annual compliance determination fee in accordance with the fee schedule in OAR 340-071-0140 shall be charged.
- (5) Portable holding tanks may be temporarily placed at sites having limited duration events (such as but not limited to county fairs or construction projects), provided the following requirements are met:
- (a) They shall be owned and serviced by a licensed sewage disposal service business with sewage pumping equipment having not less than a 550 gallon tank, while also meeting all other requirements in OAR 340-071-0600(10);
  - (b) Tank placement and use shall be in compliance with all local planning, building, and health requirements;
  - (c) Only domestic sewage shall be discharged into the tank. Industrial wastewater, and wastewater containing heavy metals (including but not limited to copper, cadmium and zinc) shall not be discharged into the tank;
  - (d) The tank shall be maintained in a sanitary manner so as not to cause a health hazard or nuisance;
  - (e) The tank shall not be buried;

- (f) Use of this tank to serve a dwelling, recreation vehicle, or any other structure having sleeping accommodations is strictly prohibited. Notwithstanding this prohibition, a portable holding tank may be used temporarily to serve a contractor's job shack or night watchman's trailer;
- (g) The tank shall meet the following standards:
  - (A) The tank shall be water-tight, with no overflow vent lower than the overflow level of the lowest fixture served;
  - (B) Tank capacity shall not exceed 1,000 gallons unless otherwise authorized by the agent;
  - (C) The tank shall be structurally sound, and be made of durable non-corrosive materials;
  - (D) The tank shall be designed and constructed to provide a secure and water-tight connection of the building sewer pipe.
  - (E) The tank shall be marked with the name and phone number of the licensed sewage disposal service responsible for maintaining the tank.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615 & ORS 454.775

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 5-1982, f. & ef. 3-9-82; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95 ; DEQ 12-1997, f. & cert. ef. 6-19-97; DEQ 13-1997(Temp), f. & cert. ef. 6-23-97

### 340-071-0345

#### Aerobic Systems

- (1) Criteria for Approval. Aerobic sewage treatment facilities may be approved for a construction-installation permit provided all the following criteria are met:
  - (a) The facility to be served is a single family dwelling;
  - (b) Wastewater strength does not exceed the maximum limits for residential strength waste-water;
  - (c) The aerobic sewage treatment facility (plant) is part of an approved on-site sewage disposal system;
  - (d) The plant has been tested pursuant to the current version of the **National Sanitation Foundation (NSF) Standard No. 40**, relating to Individual Aerobic Wastewater Treatment Plants, and been found to conform with Class I or Class II and other requirements of the standard. In lieu of NSF testing, the Department may accept testing by another agency which it considers to be equivalent;
  - (e) The property owner records in the county land title records, in a form approved by the Department, an easement and a covenant in favor of the State of Oregon:
    - (A) Allowing its officers, agents, employees and representatives to enter and inspect, including by excavation, the aerobic sewage treatment facility; and
    - (B) Acknowledging that proper operation and maintenance of the plant is essential to prevent failure of the entire on-site sewage disposal system; and
    - (C) Agreeing for himself and his heirs, successors and assigns, to hold harmless, indemnify and defend the State of Oregon, its officers, representatives, employees and agents for any and all loss and damage caused by installation or operation of the system; and
    - (D) Agreeing not to put the land to any conflicting use.
- (2) The plant shall:
  - (a) Have a visual and audible alarm, placed at a location acceptable to the Agent, which are activated upon an electrical or mechanical malfunction;
  - (b) Have a minimum rated hydraulic capacity equal to the daily sewage flow or 500 gallons per day, whichever is greater;
  - (c) Have aeration and settling compartments constructed of durable material not subject to excessive corrosion or decay;
  - (d) Have raw sewage screening or its equivalent;
  - (e) Have provisions to prevent surging of flow through the aeration and settling compartments;
  - (f) Have access to each compartment for inspection and maintenance;
  - (g) Have provisions for convenient removal of solids;
  - (h) Be designed to prevent:
    - (A) Short circuiting of flow;
    - (B) Deposition of sludge in the aeration compartment;
    - (C) Excessive accumulation of scum in the settling compartment;
    - (D) The passage of untreated sewage into the disposal field if the plant malfunctions.
- (3) Disposal Field Sizing. Disposal fields serving systems employing aerobic sewage treatment facilities shall be sized according to **Tables 4 and 5** of these rules. Where a NSF Class I plant is installed, the linear footage of disposal trench installed may be reduced by 20 percent, provided a full sized standard system replacement area is available.
- (4) Operation and Maintenance:

- (a) The supply of parts must be locally available for the expected life of the unit;
  - (b) The supplier of the plant shall be responsible for providing operation training to the owner;
  - (c) The supplier of the plant shall provide the owner with an operation and maintenance (O & M) manual for the specific plant installed;
  - (d) The owner shall remove excess solids from the plant at least once per year, or more frequently if recommended by the O & M manual.
- (5) Inspection Requirements. Each aerobic sewage treatment facility installed under this rule shall be inspected by the Agent at least once per year (see OAR 340-071-0260(2)).
- (6) Aerobic systems which serve commercial facilities, or which do not meet the above requirements shall be permitted only by WPCF Permit. Operation and maintenance requirements shall be established in the permit.

[ED. NOTE: The Table(s) referenced in this rule is not printed in the OAR Compilation. Copies are available from the agency.]

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615 & ORS 454.775

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 5-1982, f. & ef. 3-9-82; DEQ 8-1983, f. & ef. 5-25-83; DEQ 9-1984, f. & ef. 5-29-84; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

### **340-071-0360**

#### **Disposal Trenches in Saprolite**

- (1) General Conditions for Approval. An on-site system construction-installation permit may be issued for a system to serve a single family dwelling on a site with soil shallow to saprolite provided requirements in either subsection (a) or (b) of this section can be met:
- (a) Slope does not exceed 30 percent:
    - (A) The saprolite is sufficiently weathered so that it can be textured, crushed, or broken with hand pressure to a depth of 24 inches and can be dug from a test pit wall with a spade or other hand tool to a depth of 48 inches; and
    - (B) Clay films or iron coatings with moist values of five or less and moist chromas of four or more and/or organic coatings with moist values of three or less and moist chromas of two or more occur on fracture surfaces of the saprolite to a depth of 48 inches.
  - (b) Slope is in excess of 30 percent but does not exceed 45 percent:
    - (A) The saprolite is sufficiently weathered so that it can be textured, crushed, or broken with hand pressure to a depth of 24 inches and can be dug from a test pit wall with a spade or other hand tool to a depth of 60 inches; and
    - (B) Clay films or iron coatings with moist values of five or less and moist chromas of four or more and/or organic coatings with moist values of three or less and moist chromas of two or more occur on fracture surfaces of the saprolite to a depth of 60 inches.
- (2) Construction Requirements:
- (a) Standard disposal trenches shall be installed where slope does not exceed 30 percent:
    - (A) Standard disposal trenches shall be installed at a minimum depth of 24 inches and a maximum depth of 30 inches below the natural soil surface and contain 12 inches of filter material and a minimum of 12 inches of native soil backfill;
    - (B) Standard disposal trenches shall be sized at a minimum of 100 linear feet per 150 gallons projected daily sewage flow.
  - (b) Seepage trenches shall be installed where slope is in excess of 30 percent but does not exceed 45 percent:
    - (A) Seepage trenches shall be installed at a minimum depth of 30 inches and at a maximum depth of 36 inches below the natural soil surface and contain a minimum of 18 inches of filter material and 12 inches of native soil backfill;
    - (B) Seepage trenches shall be sized at a minimum of 75 linear feet per 150 gallons of projected daily sewage flow.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615 & ORS 454.775

Hist.: DEQ 9-1984, f. & ef. 5-29-84; DEQ 15-1986, f. & ef. 8-6-86

### **340-071-0400**

#### **Geographic Area Special Considerations.**

- (1) River Road -- Santa Clara Area, Lane County:

- (a) Within the areas set forth in subsection (b) of this section the Agent may issue either construction permits for new subsurface sewage disposal systems or favorable reports of evaluation of site suitability to construct systems under the following circumstances:
    - (A) The system complies with all rules in effect at the time the permit is issued; and
    - (B) The system will not in itself contribute, or in combination with other new sources after April 18, 1980, contribute more than sixteen and seven-tenths (16.7) pounds nitrate-nitrogen per acre per year to the local groundwater. The applicant shall assure compliance with this condition by showing his ownership or control of adequate land through easements or equivalent.
  - (b) Subsection (a) of this section shall apply to all of the following area generally known as River Road -- Santa Clara, and defined by the boundary submitted by the Board of County Commissioners for Lane County, which is bounded on the south by the City of Eugene, on the west by the Southern Pacific Railroad, on the north by Beacon Drive, and on the east by the Willamette River, and containing all or portions of T16S, R4W, Sections 33, 34, 35, 36; T17S, R4W, Sections 1, 2, 3, 4, 10, 11, 12, 13, 14, 15, 22, 23, 24, 25; and T17S, R1E, Sections 6, 7, 18, Willamette Meridian;
  - (c) This rule is subject to modification or repeal by the Commission on an area-by-area basis upon petition by the appropriate local agency or agencies. Such petition either shall provide reasonable evidence that development using subsurface sewage disposal systems will not cause unacceptable degradation of groundwater quality or surface water quality or shall provide equally adequate evidence that degradation of groundwater or surface water quality will not occur as a result of such modification or repeal;
  - (d) Subsections (a) and (b) of this section shall not apply to any construction permit application based on a favorable report of evaluation of site suitability issued by the Agent pursuant to ORS 454.755(1)(b), where such report was issued prior to the effective date of this rule.
- (2) General North Florence Aquifer, North Florence Dunal Aquifer Area, Lane County:
- (a) Within the area set forth in subsection (2)(b) of this rule, the agent may issue construction permits for new on-site sewage disposal systems or favorable reports of evaluation of site suitability to construct individual or community on-site sewage disposal systems under the following circumstances:
    - (A) The lot and proposed system shall comply with all rules in effect at the time the permit or favorable report of site suitability is issued; or
    - (B) The lot and proposed system complies with paragraph 2(a)(A) of this rule, except for the projected daily sewage loading rates, and the system in combination with all other previously approved systems owned or legally controlled by the applicant shall be projected by the Department to contribute to the local groundwater not more than fifty-eight (58) pounds nitrate-nitrogen NO<sub>3</sub>-N per year per acre owned or controlled by the applicant.
  - (b) Subsection (2)(a) of this rule shall apply to all of the following area hereby known as the General North Florence Aquifer of the North Florence Dunal Area and is defined by the hydrologic boundaries identified in the June 1982, 208 North Florence Dunal Aquifer Study, which is the area bounded on the west by the Pacific Ocean; on the southwest and south by the Siuslaw River; on the east by the North Fork of the Siuslaw River and the ridge line at the approximate elevation of four hundred (400) feet above mean sea level directly east of Munsel Lake, Clear Lake and Collard Lake; and on the north by Mercer Lake, Mercer Creek, Sutton Lake and Sutton Creek; and containing all or portions of T17S, R12W, Sections 27, 28, 33, 34, 35, 36, and T18S, T12W, sections 1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15, 16, 22, 23, 24, 25, 26, 27; W.M., Lane County, except that portion defined as the Clear Lake Watershed which is the area beginning at a point known as Tank One, located in Section One, Township 18 South, Range 12 West, of the Willamette Meridian, Lane County, Oregon: Run thence S. 67° 50' 51.5" E. 97.80 ft. to the True Point of Beginning; Run thence S. 05° 40' 43.0" W. 1960.62 ft. to a point; Run thence S. 04° 58' 45.4" E. 1301.91 ft. to a point; Run thence S. 52° 44' 01.0" W. 231.21 ft. to a point; Run thence S. 15° 20' 45.4" E. 774.62 ft. to a point; Run thence S. 31° 44' 14.0" W. 520.89 ft. to a point; Run thence S. 00° 24' 43.9" W. 834.02 ft. to a point; Run thence S. 07° 49' 01.8" W. 1191.07 ft. to a point; Run thence S. 50° 26' 06.3" W. 731.61 ft. to a point; Run thence S. 02° 51' 10.5" W. 301.37 ft. to a point; Run thence 36° 37' 58.2" W. 918.41 ft. to a point; Run thence S. 47° 12' 26.3" W. 1321.86 ft. to a point; Run thence S. 72° 58' 54.2" W. 498.84 ft. to a point; Run thence S. 85° 44' 21.3" W. 955.64 ft. to a point; Which is N. 11° 39' 16.9" W. 5434.90 ft. from a point known as Green Two (located in Section 13 in said Township and Range); Run thence N. 58° 09' 44.1" W. 1630.28 ft. to a point; Run thence N. 25° 23' 10.1" W. 1978.00 ft. to a point; Run thence N. 16° 34' 21.0" W. 1731.95 ft. to a point; Run thence N. 06° 13' 18.0" W. 747.40 ft. to a point; Run thence N. 03° 50' 32.8" E. 671.51 ft. to a point; Run thence N. 59° 33' 18.9" E. 1117.02 ft. to a point; Run thence N. 59° 50' 06.0" E. 1894.56 ft. to a point; Run thence N. 48° 28' 40.0" E. 897.56 ft. to a point; Run thence N. 31° 29' 50.7" E. 920.64 ft. to a point; Run thence N. 19° 46' 39.6" E. 1524.95 to a point; Run thence S. 76° 05' 37.1" E. 748.95 ft. to a point; Run thence S. 57° 33' 30.2" E. 445.53 ft. to a point; Run thence S. 78° 27' 44.9" E. 394.98 ft. to a point; Run thence S. 61° 55' 39.0" E. 323.00 ft. to a point; Run thence N. 89° 04' 46.8" E. 249.03 ft. to

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a point; Run thence S. 67° 43' 17.4" E. 245.31 ft. to a point; Run thence S. 79° 55' 09.8" E. 45.71 ft. to a point; Run thence S. 83° 59' 27.6" E. 95.52 ft. to a point; Run thence N. 42° 02' 57.2" E. 68.68 ft. to a point; Run thence S. 80° 41' 24.2" E. 61.81 ft. to a point; Run thence S. 10° 47' 03.5" E. 128.27 ft. to the True Point of Beginning; and containing all or portions of T17S, R12W, Sections 35 and 36; and T18S, R12W, Sections 1, 2, 11 and 12; W.M., Lane County.

(3) Lands Overlaying the Alsea Dunal Aquifer:

(a) Within the area set forth in subsection (3)(c) of this rule, the Agent may issue a construction permit for a new on-site sewage disposal system or a favorable report of evaluation of site suitability to construct a single on-site system on lots that were lots of record prior to January 1, 1981; or on lots in partitions or subdivisions that have received preliminary planning, zoning, and on-site sewage disposal approval prior to January 1, 1981, providing one of the following can be met:

(A) At the time the permit or favorable report of site suitability is issued the lot complies with OAR 340-071-0100 through 340-071-0360 and OAR 340-071-0410 through 340-071-0520; or

(B) The lot is found through site evaluation not to comply with OAR 340-071-0100 through 340-071-0360 and OAR 340-071-0410 through 340-071-0520, but does meet all of the following conditions when a pressurized seepage bed is utilized:

(i) Groundwater levels shall not be closer than four (4) feet from the ground surface or closer than three (3) feet from the bottom of the seepage bed;

(ii) The seepage bed shall be constructed in accordance with OAR 340-071-0275(4) and (5);

(iii) The seepage bed shall be sized on the basis of two hundred (200) square feet of bottom area per one hundred fifty (150) gallons projected daily sewage flow;

(iv) Projected daily sewage flows shall be limited to not more than three hundred seventy-five (375) gallons per lot, except those lots which have a certificate of favorable site evaluation which provides for a larger flow;

(v) All setbacks identified in **Table 1** can be met, except that lots of record prior to May 1, 1973, shall maintain a minimum fifty (50) feet separation to surface public waters;

(vi) Sufficient area exists on the lot to install a seepage bed and a replacement seepage bed. The area reserved for replacement may be waived pursuant to the exception in OAR 340-071-0150(4)(a)(B).

(C) The lot is found through site evaluation not to comply with OAR 340-071-0100 through 340-071-0360 and OAR 340-071-0410 through 340-071-0520, but does meet all of the following conditions when a conventional sand filter without a bottom is utilized:

(i) Groundwater levels shall not be closer than one (1) foot from the ground surface and not closer than one (1) foot from the bottom of the sand filter;

(ii) Sewage flows shall be limited to not more than three hundred seventy-five (375) gallons per day per lot, except those lots which have a certificate of favorable site evaluation which provides for a larger flow;

(iii) The sand filter shall be sized at one (1) square foot of bottom area for each gallon of projected daily sewage flow;

(iv) The conventional sand filter without a bottom shall be constructed in accordance with OAR 340-071-0295(3);

(v) All setbacks identified in **Table 1** can be met, except that lots of record prior to May 1, 1973, shall maintain a minimum fifty (50) feet separation to surface public waters;

(vi) Sufficient area exists on the lot to install a bottomless conventional sand filter and a replacement bottomless conventional sand filter. The area for replacement may be waived pursuant to the exception contained in OAR 340-071-0150(4)(a)(B).

(b) Within the area set forth in subsection (3)(c) of this rule, for lots created on or after January 1, 1981, and/or when the on-site system will serve a commercial facility, the Agent may issue a construction permit for a new on-site sewage disposal system or a favorable report of evaluation of site suitability if it is determined that all rules of the Commission can be met;

(c) The Alsea Dunal Aquifer is defined as all the land bounded on the East by Highway 101, the Pacific Ocean on the West, and from Driftwood Beach Wayside South to the southern tip of the Alsea Bay Spit;

(d) If the results of groundwater monitoring in the Alsea Dunal Aquifer indicate unacceptable levels of degradation or if it appears necessary or desirable to pursue development of the aquifer as a source of drinking water, sewage collection and off-site treatment and disposal facilities shall be installed unless further study demonstrates that such facilities are not necessary or effective to protect the beneficial use.

(4) Christmas Valley Townsite, Lake County:

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- (a) Within the area set forth in subsection (4)(b) of this rule, the agent may consider the shallow groundwater table, if present, in the same manner as a temporary water table when preparing and/or issuing site evaluation reports and construction-installation permits;
  - (b) The Christmas Valley Townsite is defined as all land within the Christmas Valley Townsite plat located within Sections 9, 10, 11, 14, 15 and 16 of Township 27 South, Range 17 East, Willamette Meridian, in Lake County.
- (5) Clatsop Plains Aquifer, Clatsop County: The Clatsop Plains Groundwater Protection Plan, prepared by R.W. Beck and Associates and adopted by Clatsop County, provides a basis for continued use of on-site sewage disposal systems while protecting the quality of groundwater for future water supplies. For the plan to be successful, the following components must be accomplished:
- (a) By not later than January 1, 1983, Clatsop County shall identify and set aside aquifer reserve areas for future water supply development containing a minimum of two and one half (2-1/2) square miles. The reserve areas shall be controlled so that the potential for groundwater contamination from nitrogen and other possible pollutants is kept to a minimum;
  - (b) The Agent may issue construction installation permits for new on-site sewage disposal systems or favorable reports of site evaluation to construct on-site systems, within the area generally known as the Clatsop Plains, which is bounded by the Columbia River to the North; the Pacific Ocean to the west; the Necanicum River, Neawanna Creek, and County Road 157 on the south; and the Carnahan Ditch-Skipanon River and the foothills of the Coast Range to the east, providing:
    - (A) The lot or parcel was created in compliance with the appropriate comprehensive plan for Gearhart (adopted by County Ordinance 80-3), Seaside (adopted by County Ordinance 80-10), Warrenton (adopted by County Ordinance 82-15), or the Clatsop County plan adopted through Ordinance No. 79-10; and either
    - (B) The lot or parcel does not violate any rule of this Division; or
    - (C) Lot or parcel does not violate the Department's Water Quality Management Plan or any rule of this Division, except the projected maximum sewage loading rate would exceed the ratio of four hundred fifty (450) gallons per one-half (1/2) acre per day. The on-site system shall be either a sand filter system or a pressurized distribution system with a design sewage flow not to exceed four hundred fifty (450) gallons per day; or
    - (D) The Department may approve the use of standard on-site systems to serve single family dwellings within planned developments or clustered-lot subdivisions providing:
      - (i) The planned development or clustered-lot subdivision is not located within Gearhart, Seaside, Warrenton, or their urban growth boundaries; and
      - (ii) The lots do not violate any rule of this Division, except the projected maximum sewage loading rate may exceed the ratio of four hundred fifty (450) gallons per acre per day; and
      - (iii) The Department is provided satisfactory evidence through a detailed groundwater study that the use of standard systems will not constitute a greater threat to groundwater quality than would occur with the use of sand filter systems or pressurized distribution systems.
- (6) Within areas east of the Cascade Range where the annual precipitation does not exceed twenty (20) inches, and after evaluating the site, the Agent may issue a construction-installation permit authorizing installation of a standard system to serve a single family dwelling, provided the requirements in subsections (6)(a) and (b) of this rule are met:
- (a) Minimum Site Criteria:
    - (A) The property is ten (10) acres or larger in size. The minimum parcel size considered under this rule is designated by the County, but in no event shall it be less than ten (10) acres;
    - (B) The slope gradient does not exceed thirty (30) percent;
    - (C) The soils are diggable with a backhoe to a depth of at least twenty-four (24) inches;
    - (D) The site is found to comply with the provisions of OAR 340-071-0220(1)(b, e, f, g, h, and i).
  - (b) Minimum Construction Requirements:
    - (A) The system shall contain not less than two hundred twenty-five (225) linear feet of disposal trench for projected sewage flows not exceeding four hundred fifty (450) gallons per day. Larger sewage flows shall be sized on the basis of seventy-five (75) linear feet per each one hundred fifty (150) gallons of projected flow;
    - (B) The system shall be constructed and backfilled in compliance with OAR 340-071-0220: sections (3), (4), (5), (7), (8), (9), (10), and (11) of this rule.
  - (c) At the discretion and request of the owner or the owner's authorized representative, a single application may be submitted to the Agent for both a site evaluation report and a construction-installation permit. The application would include the sum of the fees for both activities, pursuant to OAR 340-071-0140(1)(a)(A) and OAR 340-071-0140(1)(b)(A)(i), as well as the following:

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- (A) Favorable land use compatibility statement from the appropriate land use authority signifying that the proposed land use is compatible with the Land Conservation and Development Commission acknowledged comprehensive plan or complies with the statewide planning goals;
  - (B) Property development plan acceptable to the Agent showing the location of existing and proposed improvements, including the locations of the dwelling and sewage disposal system;
  - (C) All other exhibits the Agent finds are necessary to complete the application.
- (d) The Agent may waive the pre-cover inspection for a system installed pursuant to this section, provided the system installer submits the following information to the Agent at the time construction of the system is complete:
- (A) A detailed and accurate as-built plan of the constructed system; and
  - (B) A list of all material used in the construction of the system; and
  - (C) A written certification (on a form acceptable to the Department) that the construction was in accordance with the permit and rules of the Commission.
- (7) Within areas east of the Cascade Range where the annual precipitation does not exceed twenty (20) inches, the Agent may issue a construction-installation permit authorizing installation of a standard system to serve a single family dwelling, provided the requirements in subsections (7)(a) and (b) of this rule are met. The Agent may waive the site evaluation for a single family dwelling provided:
- (a) Minimum Site Criteria:
    - (A) The property is eighty (80) acres or larger in size. The minimum parcel size considered under this rule is designated by the County, but in no event shall it be less than eighty (80) acres;
    - (B) The separation distance between the proposed on-site system and the nearest dwelling, other than that being served by the proposed system, is at least one-quarter mile;
    - (C) The nearest property line to the proposed system is at least 100 feet, the nearest domestic water source is at least 200 feet, and the nearest surface public water is at least 200 feet; and
    - (D) In the opinion of the Agent, sufficient topographical and soils information, including but not limited to slope, terrain, landform, and rock outcrops, is submitted with the application to determine the property can be approved for on-site sewage disposal in conformance with the purpose of these rules as stated in OAR 340-071-0110.
  - (b) Minimum Construction Requirements:
    - (A) Sizing requirements of Tables 4 and 5 shall be followed as closely as possible. In any case, the system shall contain not less than two hundred twenty-five (225) linear feet of disposal trench for projected sewage flows not exceeding four hundred fifty (450) gallons per day. Larger sewage flows shall be sized on the basis of seventy-five (75) linear feet per each one hundred fifty (150) gallons of projected flow;
    - (B) The system shall be constructed and backfilled as closely as possible to the requirements contained in OAR 340-071-0220.
  - (c) At the request of the owner or the owner's authorized representative, a single application may be submitted to the Agent for both a site evaluation report and a construction-installation permit. The application would include the fee for a site evaluation, pursuant to OAR 340-071-0140, as well as the following:
    - (A) Favorable land use compatibility statement from the appropriate land use authority signifying that the proposed land use is compatible with the Land Conservation and Development Commission acknowledged comprehensive plan or complies with the statewide planning goals;
    - (B) Property development plan acceptable to the Agent showing the location of existing and proposed improvements, including the locations of the dwelling and sewage disposal system;
    - (C) All other exhibits the Agent finds are necessary to complete the application;
    - (D) If the decision is made to waive the site evaluation, the fee will be transferred to the permit.
  - (d) The Agent may waive the pre-cover inspection for a system installed pursuant to this section, provided the system installer submits the following information to the Agent at the time construction of the system is complete:
    - (A) A detailed and accurate as-built plan of the constructed system; and
    - (B) A list of all material used in the construction of the system; and
    - (C) A written certification (on a form acceptable to the Department) that the construction was in accordance with the permit and rules of the Commission.
  - (e) The conditions for OAR 340-071-0400(7) shall be set forth in an addendum to the memorandum of agreement (contract) between the County and the Department.

[ED. NOTE: The Table(s) referenced in this rule is not printed in the OAR Compilation. Copies are available from the agency.]

Stat. Auth.: ORS 183.335, ORS 454.625, ORS 468.020, ORS 468B.010 & ORS 468B.020

Stats. Implemented: ORS 454.610 & ORS 454.615

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 17-1981, f. & ef. 7-10-81; DEQ 2-1982, f. & ef. 1-28-82; DEQ 16-1982, f. & ef. 8-31-82; DEQ 20-1982, f. & ef. 10-19-82; DEQ 3-1983, f. & ef. 4-18-83; DEQ 8-1983, f. & ef. 5-25-83; DEQ 15-1986, f. & ef. 8-6-86; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95; DEQ 20-1996(Temp), f. & cert. ef. 10-14-96; DEQ 4-1997, f. & cert. ef. 3-7-97

**340-071-0401**

**Mid-Multnomah County, Cesspool and Seepage Pit Use**

- (1) This rule shall be applicable only within the area defined in Appendix B of the document entitled **Evaluation of Hearing Record for Proposal to Declare a Threat to Drinking Water in a Specifically Defined Area of Mid-Multnomah County** pursuant to ORS 454.275 et seq., February 6, 1986.
- (2) Favorable site evaluation reports and new construction-installation permits for cesspool and seepage pit sewage disposal systems may be issued within the area defined in section (1) of this rule, provided all of the following conditions are met:
  - (a) Construction of sewers and connection thereto is on schedule as defined in the Mid-Multnomah County Sewer Implementation Plan, September 1985;
  - (b) The total waste load discharged into cesspool and seepage pit sewage disposal systems within the affected area at any time does not exceed that indicated by the EQC Benchmark Removal Rate line in Figure 4-1, of Mid-Multnomah County Sewer Implementation Plan, September 1985, based on the assumption that 56,000 single family dwelling unit equivalent cesspool and seepage pit systems existed in the affected area at the beginning of 1985;
  - (c) Sewers are not available to serve the proposed development. Connection to sewers shall be made whenever practicable. Connection will be deemed practicable if sewers are physically available as defined in OAR 340-071-0160(5)(f) unless otherwise allowed by the Agent;
  - (d) Any land division or subdivision development that involves construction of streets shall construct dry sewers at the time of development to minimize costs and disruption when connection to a sewer becomes possible. If in the judgment of the Agent construction of dry sewers is not practicable, the land division or subdivision may be approved for cesspools and seepage pits if funds in the amount of the cost of the needed dry sewer construction is placed in an interest bearing escrow account to be applied to construction of the sewers when appropriate under the schedule for sewer construction by the local governments;
  - (e) Cesspool or seepage pit systems shall not be authorized on any lot that is large enough to install a standard or other alternative on-site system;
  - (f) Site Criteria:
    - (A) The permanent water table is 16 feet or greater from the surface;
    - (B) Gravelly sand, gravelly loamy sand, or other equally porous material occurs in a continuous five foot deep stratum within 12 feet of the ground surface;
    - (C) A layer that limits effective soil depth does not overlay the gravel stratum;
    - (D) The site is found to comply with the provisions of OAR 340-071-0220(1)(e), (f) and (i).
- (3) Construction Requirements:
  - (a) Each cesspool and seepage pit shall be installed in a location to facilitate future connection to a sewerage system when such facilities become available;
  - (b) Maximum depth of cesspools and seepage pits shall be 35 feet below ground surface;
  - (c) The cesspool or seepage pit depth shall terminate at least 4 feet above the water table;
  - (d) Cesspool and seepage pit structures shall be of a design to assure that collapse or cave-in will not occur;
  - (e) The provisions of OAR 340-071-0220(1)(i) are met.
- (4) Permits to repair or replace failing cesspool or seepage pit systems may be issued if sewers are not available. Connection to sewers shall be made whenever practicable. Connection will be deemed practicable if sewers are physically available as defined in OAR 340-071-0160(5)(f) unless otherwise allowed by the Agent. The Agent may exercise judgment in determining whether strict compliance with the requirements identified in section (3) of this rule are reasonable.
- (5) Notwithstanding the permit duration specified in OAR 340-071-0160(9), a permit issued pursuant to this rule may be effective for a period of less than one year from the date of issue if specified by the Agent.
- (6) The Agent shall report to the Department of Environmental Quality at the end of each calendar year on the number of cesspools and seepage pits removed, the number of repair and replacement systems authorized, and the number of new



interim cesspool and seepage pit systems approved through on-site system and WPCF permit issuance. The calculated number of single family dwelling unit equivalent cesspools remaining in service shall at all times be less than or equal to the number derived for that point in time based on 56,000 units in existence at the beginning of 1985, and the target percent removed based on the benchmark removal rate as shown in Figure 4-1 of "Mid-Multnomah County Sewer Implementation Plan," September 1985.

- (7) For proposed new sewage loads in excess of 5,000 per day, applications for site evaluation reports and construction permits must be submitted to the Department of Environmental Quality. The permits shall be issued pursuant to OAR 340, Divisions 14 and 45 only after the Agent and the Department concur the provisions of subsection (2)(b) of this rule are not violated.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.275, ORS 454.305, ORS 454.615 & ORS 454.655

Hist.: DEQ 16-1986, f. & ef. 9-16-86; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

### **340-071-0410**

#### **Rural Area Consideration**

- (1) Departure from any standard contained in OAR 340-071-0220(1)(a) through (h) may be granted by the Agent in certain rural zones provided:
- (a) The county designates specific rural zoning classifications for purposes of this rule;
  - (b) The minimum parcel size considered under this rule is designated by the county, but in no event shall it be less than ten acres;
  - (c) The parcel is an existing parcel that does not have an accessible area approvable for a standard on-site system;
  - (d) The permit is for an on-site system designed to serve a single family dwelling, or for a commercial facility with an equivalent or less sewage flow permitted by the zone;
  - (e) The on-site sewage disposal system will function in a satisfactory manner so as not to create a public health hazard, or cause pollution of public waters;
  - (f) Requiring strict compliance with the standards contained in OAR 340-071-0220(1)(a) through (h), would in the judgment of the Agent, be unreasonable, burdensome, or impractical due to special physical conditions or cause.
- (2) The Agent has the discretion to approve design and construction for either a standard or alternative system.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

### **340-071-0415**

#### **Formal Variances**

- (1) Variances from any rule or standard for on-site sewage systems, contained in these rules, may be granted to applicants for permits by the Commission after a hearing before a special variance officer. The variance officer shall make a recommendation to the Commission for or against the variance.
- (2) Variances from any rule contained in OAR Chapter 340, Division 71 may be granted to applicants for permits by special variance officers appointed by the Director.
- (3) No variance may be granted unless the Commission or a special variance officer finds that:
- (a) Strict compliance with the rule or standard is inappropriate for cause; or
  - (b) Special physical conditions render strict compliance unreasonable, burdensome, or impractical.
- (4) Applications:
- (a) Applications shall be made to the Department or agreement county as appropriate. A separate application must be filed for each site considered for a variance;
  - (b) Each application shall be accompanied by:
    - (A) A site evaluation report, unless waived by the variance officer; and
    - (B) Plans and specifications for the proposed system; and
    - (C) The appropriate fee; and
    - (D) Other information necessary for rendering a proper decision; and
    - (E) The application shall be signed by the property owner.
- (5) An applicant for a variance under this rule is not required to pay the application fee, if at the time of filing, the applicant:
- (a) Is 65 years of age or older; and
  - (b) Is a resident of the State of Oregon; and
  - (c) Has an annual household income, as defined in ORS 310.030, of \$15,000 or less; and
  - (d) Has not previously applied under the provisions of this section.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.657, ORS 454.660 & ORS 454.662

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 5-1982, f. & ef. 3-9-82; DEQ 9-1984, f. & ef. 5-29-84

### **340-071-0420**

#### **Hardship Variances**

- (1) The Commission may grant variances from rules or standards pertaining to on-site sewage disposal systems in cases of extreme and unusual hardship.
- (2) The Commission may consider the following factors in reviewing an application for a variance based on hardship:
  - (a) Advanced age or bad health of applicant;
  - (b) Need of applicant to care for aged, incapacitated or disabled relatives;
  - (c) Relative insignificance of the environmental impact of granting a variance.
- (3) Hardship variances granted by the Commission may contain conditions such as:
  - (a) Permits for the life of the applicant;
  - (b) Limiting the number of permanent residents using the system;
  - (c) Use of experimental systems for specified periods of time.
- (4) Before an application is considered for a hardship variance it must be denied for a standard variance on the basis of technical rule considerations. At the time of application, the applicant must designate on the application whether it is to be considered for a hardship variance.
- (5) Documentation of hardship must be provided before the application is referred to the Commission for action.
- (6) Department personnel shall strive to aid and accommodate the needs of applicants for variances due to hardship.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.657

Hist.: DEQ 10-1981, f. & ef. 3-20-81

### **340-071-0425**

#### **Variance Officers**

- (1) To qualify for appointment as a variance officer, an individual must:
  - (a) Have the equivalent of five (5) years full time experience in subsurface sewage disposal methods since January 1, 1974; three (3) years of which shall have been in Oregon; and
  - (b) Have attended one (1) or more seminars, workshops, or short courses pertaining to soils and their relationship to subsurface sewage disposal.
- (2) Agreement (contract) counties may request that a county staff member, meeting the above qualifications, be appointed as a variance officer. That staff member, if appointed, would perform the Department's variance duties within that county.

Stat. Auth.: ORS 454.625

Stats. Implemented: ORS 454.660

Hist.: DEQ 10-1981, f. & ef. 3-20-81 ; DEQ 12-1997, f. & cert. ef. 6-19-97

### **340-071-0430**

#### **Variance Hearings**

- (1) The variance officer shall hold a public information type hearing on each variance application.
- (2) The hearing shall be held in the county where the property described in the application is located.
- (3) Each variance shall be heard within 30 days after receipt of a completed application.
- (4) A decision to grant or deny the variance shall be made in writing within 30 days after completion of the hearing. If the variance is granted, the variance officer shall set forth in writing the specifications, conditions and location of the system.
- (5) The burden of presenting the supportive facts shall be the responsibility of the applicant.
- (6) The variance officer shall visit the site of the proposed system prior to conducting the hearing.
- (7) Except for hardship variances, granted variances shall run with the land.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.660

Hist.: DEQ 10-1981, f. & ef. 3-20-81

### **340-071-0435**

#### **Variance Permit Issuance, Inspections, Certificate of Satisfactory Completion**

- (1) After a variance is granted the appropriate Agent shall be notified in writing.

- (2) In nonagreement counties the Department shall issue system construction-installation permits, perform necessary inspections and issue Certificates of Satisfactory Completion.
  - (3) In agreement counties, the county shall issue system construction installation permits, perform necessary inspections and issue Certificates of Satisfactory Completion.
- Stat. Auth.: ORS 454.625 & ORS 468.020  
Stats. Implemented: ORS 454.660  
Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 5-1982, f. & ef. 3-9-82

**340-071-0440**

**Variance Appeals**

A variance officer's decision to grant a variance may be appealed to the Commission.

Stat. Auth.: ORS 454.625  
Stats. Implemented: ORS 454.660  
Hist.: DEQ 10-1981, f. & ef. 3-20-81

**340-071-0445**

**Variance Administrative Review**

The Department may review all records and files of variance officers to determine compliance or noncompliance with these rules.

Stat. Auth.: ORS 454.625 & ORS 468.020  
Stats. Implemented: ORS 454.660  
Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 12-1997, f. & cert. ef. 6-19-97

**340-071-0450**

**Experimental Systems**

- (1) Policy: Alternative technologies to standard on-site sewage systems are needed in areas planned for rural or low density development. It is the policy of the Commission to allow the Department to pursue a program of experimentation for the purpose of obtaining sufficient data for the development of alternative sewage disposal systems, which may benefit significant numbers of people within Oregon.
- (2) Permit Required: Without first obtaining a permit from the Department, no person shall construct an experimental on-site sewage treatment and disposal system.
- (3) Application Procedures:
  - (a) Application for experimental systems shall be made on Department forms;
  - (b) The application shall be complete, signed by the owner and be accompanied by the required fee;
  - (c) The application shall include detailed system design specifications and plans and any additional information the Department considers necessary;
  - (d) The owner shall agree, in writing, to hold the State of Oregon, its officers, employees, and agents harmless of any and all loss and damage caused by defective installation or operation of the proposed system.
- (4) Criteria For Approval: Sites may be considered for experimental system permits where:
  - (a) Soils, climate, groundwater, or topographical conditions are common enough to benefit large numbers of people;
  - (b) A specific acceptable backup alternative is available in the event of system failure;
  - (c) For absorption systems, soils in both original and system replacement areas are similar;
  - (d) Installation of a particular system is necessary to provide a sufficient data sampling base;
  - (e) Zoning, planning, and building requirements allow system installation;
  - (f) A single family dwelling will be served;
  - (g) The system will be used on a continuous basis during the life of the test project;
  - (h) Resources for monitoring, sample collection, and laboratory testing are available;
  - (i) Legal and physical access by easement for construction inspections and monitoring are available;
  - (j) The property owner records a Department approved affidavit which notifies prospective property purchasers of the existence of an experimental system;
  - (k) The parcel size is at least one acre.
- (5) Permit Conditions: The system installation permit shall:
  - (a) Specify method and manner of system installation, operation, and maintenance;
  - (b) Specify method, manner, and duration of system testing and monitoring;

- (c) Identify when and where system is to be inspected;
  - (d) Require that permit not be transferable;
  - (e) Require system construction and use within one (1) year of permit issuance.
- (6) Denial Appeal: The decision of staff to either issue or deny a permit may be reviewed by the Director. The Director may affirm or reverse the decision.
- (7) Inspection of Installed System:
- (a) Upon completing construction for each inspection phase required under the permit, the permit holder shall notify the Department;
  - (b) The Department may inspect construction to determine whether it complies with permit conditions and requirements;
  - (c) After system installation is complete and complies with permit conditions, a Certificate of Satisfactory Completion shall be issued.
- (8) Repair or Replacement of System: If the Department finds the operation of the system is unsatisfactory, the owner upon written notification, shall promptly repair or modify the system, replace it with another acceptable system, or as a last resort, abandon the system.
- (9) System Monitoring: The system shall be monitored by the permittee in accordance with a schedule contained in the permit. The Department may also monitor the operation of the system, including collection of samples for analysis.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.775

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

### **340-071-0460**

#### **Moratorium Areas**

- (1) Whenever the Commission finds that construction of subsurface or alternative sewage disposal systems should be limited or prohibited in an area, it shall issue an order limiting or prohibiting such construction.
- (2) The order shall be issued only after public hearing for which more than thirty (30) days notice is given.
- (3) The order shall be a rule of this division which contains a general description of the moratorium area. A more detailed description of the area, if needed, shall be an appendix to these rules.
- (4) No permit or site evaluation report shall be issued for construction of a new or expanded system which would violate any order of the Commission issued pursuant to ORS 454.685.
- (5) Criteria For Establishing Moratoriums: In issuing an order under this section the Commission shall consider the factors contained in ORS 454.685(2).

Stat. Auth.: ORS 183.335, ORS 454.625, ORS 468.020, ORS 468B.010 & ORS 468B.020

Stats. Implemented: ORS 454.685

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 16-1982, f. & ef. 8-31-82; DEQ 3-1983, f. & ef. 4-18-83; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95; DEQ 20-1996(Temp), f. & cert. ef. 10-14-96; DEQ 4-1997, f. & cert. ef. 3-7-97

### **340-071-0500**

#### **Community Systems**

- (1) Without first applying for and obtaining a construction-installation permit, no person shall install a community on-site system.
- (2) Plans for all community systems shall include operation and maintenance details including details for financing system operation and maintenance.
- (3) The site criteria for approval of community systems shall be the same as required for standard subsurface systems contained in OAR 340-071-0220(1), or in the case of community alternative systems, the specific site conditions for that system contained in rules: OAR 340-071-0260 through 340-071-0275; OAR 340-071-0290 through 340-071-0305; OAR 340-071-0315; and 340-071-0345.
- (4) Operation Responsibility:
  - (a) Responsibility for operation and maintenance of community systems shall be vested in a municipality, a Homeowners Association, or an Association of Unit Owners as defined in Oregon Revised Statutes;
  - (b) Unless otherwise required by permit, community systems shall be inspected at least annually by the responsible entity.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615 & ORS 468B.080

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 5-1982, f. & ef. 3-9-82; DEQ 9-1984, f. & ef. 5-29-84; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95

**340-071-0520**

**Large Systems**

Unless otherwise authorized by the Department, large systems shall comply with the following requirements:

- (1) Large system absorption facilities shall be designed with distribution to the cells by means of pump(s) or siphon(s);
- (2) The disposal area shall be divided into relatively equal units. Each unit shall receive no more than thirteen hundred (1300) gallons of effluent per day;
- (3) The replacement (repair) disposal area shall be divided into relatively equal units, with a replacement disposal area unit located adjacent to an initial disposal area unit;
- (4) Effluent distribution shall alternate between the disposal area units;
- (5) Each system shall have at least two (2) pumps or siphons;
- (6) The applicant shall provide a written assessment of the impact of the proposed system upon the quality of public waters and public health, prepared by a registered geologist or certified engineering geologist qualified as a hydrogeologist, or a subordinate under the direction of either, except as specifically exempted in ORS 672.535.

Stat. Auth.: ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615 & ORS 468B.080

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 8-1983, f. & ef. 5-25-83; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95 ; DEQ 12-1997, f. & cert. ef. 6-19-97

**340-071-0600**

**Sewage Disposal Service**

- (1) No person shall perform sewage disposal services or advertise or represent himself/herself as being in the business of performing such services without first obtaining a business license from the Department. Unless suspended or revoked at an earlier date, a Sewage Disposal Service business license issued pursuant to this rule expires on July 1 next following the date of issuance. Beginning January 1, 2000, in order to be licensed, the applicant for a license with an installer endorsement must provide evidence that at least one individual working for the business has passed a written examination to demonstrate a minimally adequate knowledge of the on-site rules found in OAR Chapter 340, Divisions 71 and 73, or attend a Department approved training session covering the rules. In addition, the person at the job-site who supervises or is responsible for the construction or installation of the system shall also pass the written test or attend the training session. The Department will provide all persons who pass the test or attend the training session with a wallet size card for this purpose. People required to be certified shall be able to readily produce evidence of certification when asked to do so by the Agent. Recertification is required every five (5) years, and may be accomplished by attending pertinent training sessions, workshops, or through other methods acceptable to the Department.
- (2) Two types of license endorsements may be issued:
  - (a) Installer. Businesses licensed with this endorsement may construct or install on-site systems or parts of on-site systems, and/or do the grading, excavating, and earth-moving work associated with the construction or installation of on-site systems;
  - (b) Pumper. Businesses licensed with this endorsement may pump out and clean on-site sewage disposal systems, portable toilets, or any part thereof, and dispose of the material derived from the pumping out or cleaning of on-site systems and portable toilets.
- (3) Those persons making application for a sewage disposal service business license shall:
  - (a) Submit a complete license application form to the Department for each business; and
  - (b) File and maintain with the Department original evidence of surety bond, or other approved equivalent security, in the penal sum of two thousand five hundred dollars (\$2,500) for each business; and
  - (c) Shall have pumping equipment inspected by the Agent annually if intending to pump out or clean systems and shall complete the "Sewage Pumping Equipment Description/Inspection" form supplied by the Department. An inspection performed after January 1st shall be accepted for licensing the following July 1st; and
  - (d) Submit the appropriate fee as set forth in subsection 340-071-0140(1)(h) for each business; and
  - (e) Except as provided in section (1) of this rule, furnish evidence that at least one individual working for the business has passed the written examination or attended a Department approved training session as described in section 1 of this rule; and
  - (f) If operating a septage pumping service, submit summary origin-destination pumping information on a form supplied by the Department.
- (4) A Sewage Disposal Service business license may be transferred or amended during the license period to reflect changes in business name, ownership, or entity (i.e., individual, partnership, or corporation), providing:
  - (a) A complete application to transfer or amend the license is submitted to the Department with the appropriate fee as set forth in OAR 340-071-0140(1)(h); and

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- (b) The Department is provided with a rider to the surety, or a new form of security as required in subsection 3)(b) of this rule; and
  - (c) A valid Sewage Disposal Service business license (not suspended, revoked, or expired) is returned to the Department; and
  - (d) If there is a change in the business name, a new "Sewage Pumping Equipment Description/Inspection" form for each vehicle is submitted to the Department; and
  - (e) No person who takes over a Sewage Disposal Service business shall operate the business until evidence is provided to the Department that at least one individual working for the business has passed the written examination or attended the Department approved training session as described in section (1) of this rule. Businesses that have only the pumper endorsement described in subsection (2)(b) of this rule are exempt from this requirement.
- (5) The type of security to be furnished pursuant to OAR 340-071-0600(3)(b) may be:
- (a) Surety bond executed in favor of the State of Oregon on a form approved by the Attorney General and provided by the Department. The bond shall be issued by a surety company licensed by the Insurance Commissioner of Oregon. Any surety bond shall be so conditioned that it may be canceled only after forty-five (45) days notice to the Department, and to otherwise remain in effect for not less than two (2) years following termination of the sewage disposal service license, except as provided in subsection (e) of this section; or
  - (b) Insured savings account irrevocably assigned to the Department, with interest earned by such account made payable to the depositor; or
  - (c) Negotiable securities of a character approved by the State Treasurer, irrevocably assigned to the Department, with interest earned on deposited securities made payable to the depositor;
  - (d) Any deposit of cash or negotiable securities under ORS 454.705 shall remain in effect for not less than two (2) years following termination of the sewage disposal service license except as provided in subsection (e) of this section. A claim against such security deposits must be submitted in writing to the Department, together with an authenticated copy of:
    - (A) The court judgment or order requiring payment of the claim; or
    - (B) Written authority by the depositor for the Department to pay the claim.
  - (e) When proceedings under ORS 454.705 have been commenced while the security required is in effect, such security shall be held until final disposition of the proceedings is made. At that time claims will be referred for consideration of payment from the security so held.
- (6) Each licensee shall:
- (a) Be responsible for any violation of any statute, rule, or order of the Commission or Department pertaining to his licensed business;
  - (b) Be responsible for any act or omission of any servant, agent, employee, or representative of such licensee in violation of any statute, rule, or order pertaining to his license privileges;
  - (c) Deliver to each person for whom he performs services requiring such license, prior to completion of services, a written notice which contains:
    - (A) A list of rights of the recipient of such services which are contained in ORS 454.705(2); and
    - (B) Name and address of the surety company which has executed the bond required by ORS 454.705(1); or
    - (C) A statement that the licensee has deposited cash or negotiable securities for the benefit of the Department in compensating any person injured by failure of the licensee to comply with ORS 454.605 to 454.745 and with rules of the Environmental Quality Commission.
  - (d) Keep the Department informed on company changes that affect the license, such as business name change, change from individual to partnership, change from partnership to corporation, change in ownership, etc.
- (7) Misuse of License:
- (a) No sewage disposal service business shall allow anyone to perform sewage disposal services under its license, except a person who is working as an employee of the business;
  - (b) No business shall:
    - (A) Display or cause or permit to be displayed, or have in its possession any license, knowing it to be fictitious, revoked, suspended or fraudulently altered;
    - (B) Fail or refuse to surrender to the Department any license which has been suspended or revoked;
    - (C) Give false or fictitious information or knowingly conceal a material fact or otherwise commit a fraud in any license application.
- (8) Pumping and Cleaning Responsibilities:
- (a) Businesses performing the service of pumping or cleaning of sewage disposal facilities shall avoid spilling of sewage while pumping or while in transport for disposal.
  - (b) Any spillage of sewage shall be immediately cleaned up by the operator and the spill area shall be disinfected.

(9) License Suspension or Revocation:

- (a) The Department may suspend, revoke, or refuse to grant, or refuse to renew, any sewage disposal service license if it finds:
  - (A) A material misrepresentation or false statement in connection with a license application; or
  - (B) Failure to comply with any provisions of ORS 454.605 through 454.785, the rules of the Environmental Quality Commission or an order of the Commission or Department; or
  - (C) Failure to maintain in effect at all times the required bond or other approved equivalent security, in the full amount specified in ORS 454.705; or
  - (D) Nonpayment by drawee of any instrument tendered by applicant as payment of license fee.
- (b) Whenever a license is suspended, revoked or expires, the business shall remove the license from display and remove all Department identifying labels from equipment. The business shall surrender the suspended or revoked license, and certify in writing to the Department within fourteen (14) days after suspension or revocation that all Department identification labels have been removed from all equipment;
- (c) A sewage disposal service business may not be considered for re-licensure for a period of at least one (1) year after revocation of its license;
- (d) A suspended license may be reinstated, providing:
  - (A) A complete application for reinstatement of license is submitted to the Department, accompanied by the appropriate fee as set forth in OAR 340-071-0140(1)(h); and
  - (B) The grounds for suspension have been corrected; and
  - (C) The original license would not have otherwise expired.

(10) Equipment Minimum Specifications:

- (a) Tanks for pumping out of sewage disposal facilities shall comply with the following:
  - (A) Have a liquid capacity of at least five hundred fifty (550) gallons.

**EXCEPTION:** Tanks for equipment used exclusively for pumping chemical toilets not exceeding eighty (80) gallons capacity, shall have a liquid capacity of at least one hundred fifty (150) gallons.

- (B) Be of watertight metal construction;
- (C) Be fully enclosed;
- (D) Have suitable covers to prevent spillage.
- (b) The vehicle shall be equipped with either a vacuum or other type pump which will not allow seepage from the diaphragm or other packing glands and which is self priming;
- (c) The sewage hose on vehicles shall be drained, capped, and stored in a manner that will not create a public health hazard or nuisance;
- (d) The discharge nozzle shall be:
  - (A) Provided with either a camlock quick coupling or threaded screw cap;
  - (B) Sealed by threaded cap or quick coupling when not in use;
  - (C) Located so that there is no flow or drip onto any portion of the vehicle;
  - (D) Protected from accidental damage or breakage.
- (e) No pumping equipment shall have spreader gates;
- (f) Each vehicle shall at all times be supplied with a pressurized wash water tank, disinfectant, and implements for cleanup;
- (g) Pumping equipment shall be used for pumping sewage disposal facilities exclusively unless otherwise authorized in writing by the Agent;
- (h) Chemical toilet pumping equipment shall not be used for any other purpose if the pump tank has a liquid capacity of less than 550 gallons.

(11) Equipment Operation and Maintenance:

- (a) When in use, pumping equipment shall be operated in a manner so as not to create public health hazards or nuisances;
- (b) Equipment shall be maintained in a reasonably clean condition at all times.

(12) Vehicles shall be identified as follows:

- (a) Display the name or assumed business name on each vehicle cab and on each side of a tank trailer:
  - (A) In letters at least three (3) inches in height; and
  - (B) In a color contrasting with the background.
- (b) Tank capacity shall be printed on both sides of the tank:
  - (A) In letters at least three (3) inches in height; and
  - (B) In a color contrasting with the background.

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- (c) Labels issued by the Department for each current license period shall be displayed at all times at the front, rear, and on each side of the "motor vehicle" as defined by **United States Department of Transportation Regulations, Title 49 U.S.C.**
- (13) Disposal of Septage. Each business shall:
  - (a) Discharge no septage upon the surface of the ground unless approved by the Department in writing;
  - (b) Dispose of septage only in disposal facilities approved by the Department;
  - (c) Possess at all times during pumping, transport or disposal of septage, origin-destination records for sewage disposal services rendered;
  - (d) Maintain on file, for not less than three (3) years, complete origin-destination records for sewage disposal services rendered. The records must be made available for review upon the request of the Department. Origin-Destination records shall include:
    - (A) Source of septage on each occurrence, including name and address;
    - (B) Specific type of material pumped on each occurrence;
    - (C) Quantity of material pumped on each occurrence;
    - (D) Name and location of authorized disposal site, where septage was deposited on each occurrence;
    - (E) Quantity of material deposited on each occurrence.
  - (e) Transport septage in a manner that will not create a public health hazard or nuisance;
  - (f) Possess a current septage management plan, approved by the Department. The plan shall be kept current, with any revisions approved by the Department before implementation;
  - (g) Comply with the approved septage management plan, and the septage management plan approval letter issued by the Department.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 454.615, ORS 454.625 & ORS 468.020

Stats. Implemented: ORS 454.615, ORS 454.625 & ORS 468.020

Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 32-1981(Temp), f. & ef. 12-8-81; DEQ 5-1982, f. & ef. 3-9-82; DEQ 8-1983, f. & ef. 5-25-83; DEQ 9-1984, f. & ef. 5-29-84; DEQ 15-1986, f. & ef. 8-6-86; DEQ 27-1994, f. 11-15-94, cert. ef. 4-1-95; DEQ 10-1996(Temp), f. & cert. ef. 7-16-96; DEQ 12-1997, f. & cert. ef. 6-19-97; Administrative correction 1-28-98