Dear Senators BURTENSHAW, Adams, Semmelroth, and
Representatives BARBIERI, Furniss, Chew (Rubel):

The Legislative Services Office, Research and Legislation, has received the enclosed rules of the Department of Environmental Quality:

IDAPA 58.01.03 - Individual/Subsurface Sewage Disposal Rules and Rules for Cleaning of Septic Tanks (ZBR Chapter Rewrite) - Proposed Rule (Docket No. 58-0103-2301).

Pursuant to Section 67-454, Idaho Code, a meeting on the enclosed rules may be called by the cochairmen or by two (2) or more members of the subcommittee giving oral or written notice to Research and Legislation no later than fourteen (14) days after receipt of the rules' analysis from Legislative Services. The final date to call a meeting on the enclosed rules is no later than 07/15/2024. If a meeting is called, the subcommittee must hold the meeting within forty-two (42) days of receipt of the rules' analysis from Legislative Services. The final date to hold a meeting on the enclosed rules is 08/12/2024.

The germane joint subcommittee may request a statement of economic impact with respect to a proposed rule by notifying Research and Legislation. There is no time limit on requesting this statement, and it may be requested whether or not a meeting on the proposed rule is called or after a meeting has been held.

To notify Research and Legislation, call 334-4854, or send a written request to the address on the memorandum attached below.

Terri Kondeff
Director

Legislative Services Office
Idaho State Legislature

Serving Idaho's Citizen Legislature

MEMORANDUM

TO: Rules Review Subcommittee of the Senate Resources & Environment Committee and the House Environment, Energy & Technology Committee

FROM: Deputy Division Manager - Katharine Gerrity

DATE: June 27, 2024

SUBJECT: Department of Environmental Quality

IDAPA 58.01.03 - Individual/Subsurface Sewage Disposal Rules and Rules for Cleaning of Septic Tanks (ZBR Chapter Rewrite) - Proposed Rule (Docket No. 58-0103-2301)

Summary and Stated Reasons for the Rule

The Department of Environmental Quality submits notice of proposed rule at IDAPA 58.01.03 - Individual/Subsurface Sewage Disposal Rules and Rules for Cleaning of Septic Tanks. According to the department, the rule is being proposed as part of the Zero-Based Regulation Executive Order entered by Governor Little in 2020. The department notes that there was a comprehensive review of the entire chapter in an attempt to reduce overall regulatory burden, streamline various provisions, and increase clarity and ease of use. The department states that the changes include removing and replacing definitions, revising and simplifying septic tank approvals, removing specific requirements for large septic tanks, reducing setbacks to surface water, combining the cleaning of septic tanks sections into one section, simplifying the permitting process for service providers, and identifying certain provisions of the Technical Guidance Manual for Individual and Subsurface Sewage Disposal Systems to be moved into the rule.

Negotiated Rulemaking / Fiscal Impact

The department indicates that there is no fiscal impact as a result of the rulemaking. The department states that negotiated rulemaking was conducted.

Statutory Authority

The rulemaking appears to be authorized pursuant to chapters 1 and 36, Idaho Code that grants the board authority to adopt rules and standards to protect the environment and health of the state of Idaho for the installation of cottage site sewage treatment facilities and for the issuance of pollution source permits.

cc: Department of Environmental Quality
Janeena White

***** PLEASE NOTE *****

Per the Idaho Constitution, all administrative rules may be reviewed by the Legislature during the next legislative session. The Legislature has 3 options with this rulemaking docket: **1)** Approve the docket in its entirety; **2)** Reject the docket in its entirety; or **3)** Reject the docket in part.

IDAPA 58 – DEPARTMENT OF ENVIRONMENTAL QUALITY

58.01.03 – INDIVIDUAL/SUBSURFACE SEWAGE DISPOSAL RULES AND RULES FOR CLEANING OF SEPTIC TANKS

DOCKET NO. 58-0103-2301 (ZBR CHAPTER REWRITE)

NOTICE OF RULEMAKING – PROPOSED RULE

AUTHORITY: In compliance with Section 67-5221(1), Idaho Code, notice is hereby given that this agency has initiated proposed rulemaking. This action is authorized by Chapters 1 and 36, Title 39, Idaho Code.

PUBLIC HEARING SCHEDULE: No hearings have been scheduled. Pursuant to Section 67-5222(2), Idaho Code, a public hearing will be held if requested in writing by twenty-five (25) persons, a political subdivision, or an agency. Written requests for a hearing must be received by the undersigned on or before June 19, 2024. If no such written request is received, a public hearing will not be held. Two public meetings were held during the negotiated rulemaking process.

DESCRIPTIVE SUMMARY: DEQ initiated this rulemaking in compliance with Executive Order No. 2020-01, Zero-Based Regulation (EO 2020-01), issued by Governor Little on January 16, 2020. Pursuant to EO 2020-01, each rule chapter effective on June 30, 2020, shall be reviewed by the agency that promulgated the rule. The review will be conducted according to a schedule established by the Division of Financial Management, Office of the Governor (DFM), posted at https://adminrules.idaho.gov/forms_menu.html. This is one of the DEQ rule chapters up for review in 2024. The goal of the rulemaking is to perform a critical and comprehensive review of the entire chapter in an attempt to reduce overall regulatory burden, streamline various provisions, and increase clarity and ease of use.

Major proposed changes to the rule include removing and replacing definitions, revising and simplifying septic tank approvals, removing specific requirements for large septic tanks, reducing setbacks to surface water, combining the cleaning of septic tanks sections into one section, simplifying the permitting process for service providers, and identifying certain provisions of the Technical Guidance Manual for Individual and Subsurface Sewage Disposal Systems to be moved into the rule.

The proposed rule text is in legislative format. Language the agency proposes to add is underlined. Language the agency proposes to delete is struck out. It is these additions and deletions to which public comment should be addressed. If adopted by the Idaho Board of Environmental Quality and approved by concurrent resolution of the 2025 Idaho State Legislature, the rule will become effective on July 1, 2025, unless otherwise specified in the concurrent resolution.

FISCAL IMPACT STATEMENT: The following is a specific description, if applicable, of any negative fiscal impact on the state general fund greater than ten thousand dollars ($10,000) during the fiscal year resulting from this rulemaking: Not applicable.

NEGOTIATED RULEMAKING: Negotiated rulemaking was conducted pursuant to Section 67-5220, Idaho Code. On September 6, 2023, the Notice of Intent to Promulgate Rules – Zero-Based Regulation (ZBR) Negotiated Rulemaking was published in the Idaho Administrative Bulletin. At the conclusion of the negotiated rulemaking process, DEQ submitted the draft rule to the Division of Financial Management for review. DEQ formatted the draft for publication as a proposed rule and is now seeking public comment. The negotiated rulemaking record, which includes the negotiated rule drafts, documents distributed during the negotiated rulemaking process, and the negotiated rulemaking summary, is available at https://www.deq.idaho.gov/individual-subsurface-sewage-disposal-docket-no-58-0103-2301/.

INCORPORATION BY REFERENCE: Pursuant to Section 67-5229(2)(a), Idaho Code, the following is a brief synopsis of why the materials cited are being incorporated by reference into this rule: Not applicable.

IDAHO CODE SECTION 39-107D STATEMENT: This rule regulates an activity not regulated by the federal government. Chapters 1 and 36, Title 39, Idaho Code, grant authority to the Board to adopt rules and standards to protect the environment and health of the state of Idaho for the installation of cottage site sewage treatment facilities and for the issuance of pollution source permits.

ASSISTANCE ON TECHNICAL QUESTIONS: For assistance on questions concerning this rulemaking, contact Peter Adams at peter.adams@deq.idaho.gov or (208)954-1438.

SUBMISSION OF WRITTEN COMMENTS: Anyone may submit written comments regarding this proposed rule. The Department will consider all written comments received on or before June 26, 2024. Submit written comments to:

Peter Adams
Department of Environmental Quality
1410 N. Hilton, Boise, ID 83706
peter.adams@deq.idaho.gov

Dated this 5th day of June, 2024

Janeena White
Senior Operations Analyst
Department of Environmental Quality
1410 N. Hilton Street
Boise, Idaho 83706
208-373-0151
Janeena.White@deq.idaho.gov

THE FOLLOWING IS THE PROPOSED TEXT OF DOCKET NO. 58-0103-2301
(ZBR Chapter Rewrite.)

58.01.03 – INDIVIDUAL/SUBSURFACE SEWAGE DISPOSAL RULES AND RULES FOR CLEANING OF SEPTIC TANKS

000. LEGAL AUTHORITY.
Title 39, Chapter 1 and Title 39, Chapter 36, Idaho Code~~, grants authority to the Board of Environmental Quality to adopt rules and standards to protect the environment and the health of the State, for the installation of cottage site sewage treatment facilities and for the issuance of pollution source permits. Title 39, Chapter 1, Idaho Code, grants to the Director the authority to issue pollution source permits; charges the Director to enforce all laws, rules, regulations, and standards relating to environmental protection and health, and those relating to the storage, handling and transportation of solids, liquids and gases which may cause or contribute to water pollution, and authorizes the Department of Environmental Quality to review for approval the plans and specifications for all proposed waste treatment facilities prior to their construction.~~ ~~(3-31-22)~~( )

001. ~~TITLE,~~ SCOPE, CONFLICT, AND RESPONSIBILITIES.

~~01.~~ ~~Title~~. ~~These rules are titled IDAPA 58.01.03, "Individual/Subsurface Sewage Disposal Rules and Rules for Cleaning of Septic Tanks."~~ ~~(3-31-22)~~

0~~2~~1. Scope. ~~The provisions of t~~These rules: ( )

a. ~~establish limitations~~ Establish limits on the construction and use of individual and subsurface sewage disposal systems; ( )

b. ~~and e~~Establish ~~the~~ requirements for obtaining an installation permit and ~~an installer's~~ registration permits for installers, service providers, and pumpers~~.~~; ( )

c. ~~These rules a~~Apply to every individual and every subsurface blackwaste and wastewater treatment system in Idaho~~.~~; and ( )

d. ~~These rules also e~~Establish general requirements for ~~the~~ handling, transportation, and disposal of septic tank wastes ~~and for obtaining a septic tank pumping permit~~. ~~(3-31-22)~~( )

0~~3~~2. Conflict of Rules, Standards, and Ordinances. ~~In any case w~~Where a provision of these rules ~~is found to be in~~ conflicts with a provision of any state or local zoning, building, fire, safety, or health regulation, standard, or ordinance, the provision that, in the Director's judgment ~~of the Director~~, establishes the higher standard for ~~the promotion and protection of~~ promoting and protecting the health and safety of the people~~, shall~~ prevails. ~~(3-31-22)~~( )

0~~4~~3. Responsibilities. (3-31-22)

a. Every owner of real property is jointly and individually responsible for: (3-31-22)

i. Storing, treating, and disposing of blackwaste and wastewater generated on that property. (3-31-22)

ii. Connecting all plumbing fixtures on ~~that~~ the property that discharge wastewaters to an approved wastewater system or facility. ~~(3-31-22)~~( )

iii. Obtaining necessary permits and approvals for ~~installation of~~ installing individual or subsurface blackwaste and wastewater disposal systems. ~~(3-31-22)~~( )

iv. ~~Abandonment of~~Abandoning an individual or subsurface sewage disposal system. ~~(3-31-22)~~( )

b. Each engineer, building contractor, individual or subsurface disposal system installer, excavator, plumber, supplier, and ~~every other~~ any person, who ~~for compensation shall~~ designs, constructs, abandons, or provides any system or ~~part thereof~~ component, is jointly and individually responsible for compliance with ~~each of these~~ all rules ~~that are~~ relevant to that service or product. ~~(3-31-22)~~( )

002. REFERENCED MATERIAL.

01. NSF International. The NSF International (NSF) NSF/ANSI 40: Residential Onsite Systems and NSF/ANSI 245: Nitrogen Reduction are referenced ~~in these rules. The NSF/ANSI 40 and NSF/ANSI 245~~ and are available at www.nsf.org/services/by-industry/water-wastewater/onsite-wastewater. ~~(3-31-22)~~( )

02. Technical Guidance Manual for Individual Subsurface Sewage Disposal Systems (TGM). The TGM is referenced ~~in these rules~~ and available at ~~the Idaho~~ Department of Environmental Quality, ~~Surface and Wastewater Division,~~ 1410 N. Hilton St., Boise, ID 83706~~, https://www.deq.idaho.gov~~. ~~(3-31-22)~~( )

003. DEFINITIONS.

~~For the purposes of these rules, the following definitions apply~~ The meanings for the terms "department," "director," and "waters" are in Section 39-103, Idaho Code. ~~(3-31-22)~~( )

01. Abandoned System. A system ~~which has ceased to~~ that no longer receives blackwaste or wastewater due to diversion ~~of those wastes~~ to another treatment system or due to termination of waste flow for more than two (2) years. ~~(3-31-22)~~( )

02. Absorption Bed. A drainfield excavation exceeding six (6) feet in width. ( )

0~~2~~3. Alternative System. Any system other than a standard system for which the Department has issued

design guidelines or ~~which~~ the Director ~~judges to be~~ determines is a ~~simple~~ modification of a standard system. ~~(3-31-22)~~( )

a. A basic alternative system is any capping fill system, extra drainrock trench, gravelless trench system, steep-slope system, or other system specified in the TGM. ( )

b. A complex alternative system is any evapotranspiration system, ETPS, lagoon system, LSAS, pressure distribution system, PWTP system, intermittent sand filter, sand mound, or other system specified in the TGM. ( )

~~**03. Authorized or Approved**. The state of being sanctioned or acceptable to the Director as stated in a written document. (3-31-22)~~

04. Bedroom. A habitable room within a dwelling that meets state or local building code requirements applicable to bedrooms and includes methods of ingress and egress. The local building authority may designate any additional room as a bedroom. ( )

0~~4~~5. Blackwaste. ~~Human body waste, specifically excreta or urine. This includes toilet paper and other products used in the practice of personal hygiene~~As defined in IDAPA 58.01.16, Wastewater Rules. ~~(3-31-22)~~( )

0~~5~~6. Blackwater. ~~A wastewater whose principal pollutant is blackwaste; a combination of blackwaste and water~~As defined in IDAPA 58.01.16, Wastewater Rules. ~~(3-31-22)~~( )

~~**06. Board**. Idaho State Board Of Environmental Quality. (3-31-22)~~

07. Building Sewer. The extension of the building drain beginning five (5) feet outside the inner face of the building wall. (3-31-22)

08. Central System. Any system ~~which~~ that receives blackwaste or wastewater in volumes exceeding twenty-five hundred (2,500) gallons per day; any system ~~which~~ that receives blackwaste or wastewater from more than two (2) dwelling units or more than two (2) buildings under separate ownership. ~~(3-31-22)~~( )

09. Construct. To make, form, excavate, alter, expand, repair, or install a system~~, and, their derivations~~. ~~(3-31-22)~~( )

~~**10. Director**. The Director of the Idaho Department of Environmental Quality or the Director's designee or authorized agent. (3-31-22)~~

10. Drainfield. A system of aggregate-filled trenches, gravelless chamber systems, drip systems, absorption beds, or other approved subsurface dispersal methods that distribute wastewater effluent into the soil. Also known as a "leachfield" or "soil absorption system." ( )

11. Dwelling Unit. A single unit with complete independent living facilities for one or more persons, including permanent improvements for living, sleeping, eating, cooking, and sanitation. ( )

1~~1~~2. Existing System. Any system ~~which was~~ installed ~~prior to~~ before the effective date of these rules. ~~(3-31-22)~~( )

1~~2~~3. Expand. To enlarge any nonfailing system. (3-31-22)

1~~3~~4. Extended Treatment Package System (ETPS). ~~An advanced subsurface package sewage~~ A wastewater treatment product that requires electricity and provides secondary ~~wastewater treatment and/~~ or tertiary wastewater treatment to septic tank effluent for systems receiving less than twenty-five hundred (2,500) gallons per day. ~~(3-31-22)~~( )

1~~4~~5. Failing System. Any system ~~which~~ that exhibits one (1) or more of the following characteristics: ~~(3-31-22)~~( )

a. ~~The system d~~Does not meet the intent ~~of these rules as~~ stated in Subsection 004.01. ~~(3-31-22)~~( )

b. ~~The system f~~Fails to accept blackwaste and wastewater~~.~~; or ~~(3-31-22)~~( )

c. ~~The system d~~Discharges blackwaste or wastewater into the waters ~~of the State~~ or onto the ground surface. ~~(3-31-22)~~( )

16. Gray Water. As defined in IDAPA 58.01.16, Wastewater Rules. ( )

1~~5~~7. Ground-Water. ~~Any water of the state which occurs beneath the surface of the earth in a saturated geological formation of rock or soil~~ As defined in IDAPA 58.01.11, Ground Water Quality Rule. ~~(3-31-22)~~( )

1~~6~~8. High Groundwater Level -- Normal, Seasonal. High ground-water level may be established by the ~~presence of low chroma mottles~~ soil characteristics, actual ground-water monitoring, or historic records. ~~(3-31-22)~~( )

a. ~~The n~~Normal high groundwater level is the highest elevation of ground-water that is maintained or exceeded ~~for a~~ continuously ~~period of~~ for six (6) weeks a year. ~~(3-31-22)~~( )

b. The seasonal high groundwater level is the highest elevation of ground-water that is maintained or exceeded ~~for a~~ continuously ~~period of~~ for one (1) week a year. ~~(3-31-22)~~( )

~~**17. High Water Mark**. The line which the water impresses on the soil by covering it for sufficient periods of time to prevent the growth of terrestrial vegetation.~~ ~~(3-31-22)~~

~~1~~9. Individual System. Any standard, alternative, or subsurface disposal system ~~which~~ that is not a central system. ~~(3-31-22)~~( )

~~19~~20. Install. To excavate or ~~to~~ put in place a system or ~~a~~ component of a system. ~~(3-31-22)~~( )

2~~0~~1. Installer. Any person, corporation, or firm engaged in the business of excavation ~~for,~~ or ~~the~~ construction of individual or subsurface sewage disposal systems in the State. ~~(3-31-22)~~( )

2~~1~~2. Large Soil Absorption System (LSAS). A ~~large soil absorption system is a~~ subsurface sewage disposal system designed to receive two thousand five hundred (2,500) gallons of wastewater or more per day, including where the total wastewater flow from the entire proposed project exceeds two thousand five hundred (2,500) gallons per day, but ~~the flow~~ is separated into absorption modules ~~which~~ that receive less than two thousand five hundred (2,500) gallons per day. ~~(3-31-22)~~( )

2~~2~~3. Limiting Layer. A ~~characteristic~~ subsurface layer or material ~~which will~~ that severely limits the capability of the soil to treat or absorb wastewater including, but not limited to, water tables, fractured bedrock, ~~fissured bedrock,~~ excessively permeable material, and ~~relatively~~ impermeable material. ~~(3-31-22)~~( )

2~~3~~4. Manufactured Medium Sand. Sand that meets the following gradation requirements:

Manufactured medium sand allowable particle size percent composition.	
Sieve Size	**Passing (%)**
4	95–100
8	80–100
16	50–85
30	25–60

Manufactured medium sand allowable particle size percent composition.	
Sieve Size	**Passing (%)**
50	10–30
100	2–10
200	<2

(3-31-22)

25. **Minimum Tank Capacity**. The minimum required total liquid capacity of the septic tank facility. ( )

~~**24.** **Mottling**. Irregular areas of different color in the soil that vary in contrast, density, number and size. Mottling generally indicates poor aeration and impeded drainage.~~ ~~(3-31-22)~~

2~~5~~6. **New System**. A system ~~which~~ that is or might be ~~authorized or~~ approved on or after the effective date of these rules. ~~(3-31-22)~~( )

2~~6~~7. **Nondischarging System**. Any system ~~which is~~ designed and constructed to prevent ~~the~~ subsurface discharge of blackwaste or wastewater. ~~(3-31-22)~~( )

~~**27.** **Permit**. An individual or subsurface system installation permit or installer's registration permit.~~ ~~(3-31-22)~~

28. **Pollutants**. ~~Any chemical, biological, or physical substance whether it be solid, liquid, gas, or a quality thereof, which if released into the environment can, by itself or in combination with other substances, create a public nuisance or render that environment harmful, detrimental, or injurious to public health, safety or welfare or to domestic, commercial, industrial, agricultural, recreational, aesthetic, or other beneficial uses~~ As defined in IDAPA 58.01.16, Wastewater Rules. ~~(3-31-22)~~( )

~~**29.** **Proprietary Wastewater System Technology**. A manufactured product through which effluent flows and may be stored before infiltration.~~ ~~(3-31-22)~~

3~~0~~29. **Proprietary Wastewater Treatment ~~System~~ Product (PWTP)**. ~~A subsurface sewage treatment system that incorporates proprietary wastewater system technology to provide additional treatment to a septic tank effluent system~~ A manufactured product that provides passive treatment to septic tank effluent for systems receiving less than twenty-five hundred (2,500) gallons per day. ~~(3-31-22)~~( )

~~**31.** **Public System**. Any system owned by a county, city, special service district, or other governmental entity or Indian tribe having the authority to dispose of blackwaste or wastewater; a municipal wastewater treatment facility.~~ ~~(3-31-22)~~

3~~2~~0. **Repair**. To remake, reform, replace, or enlarge a failing system, or any component ~~thereof~~ as is necessary to restore proper operation. ~~(3-31-22)~~( )

3~~3~~1. **Scarp**. The side of a hill, canyon, ditch, river bank, roadcut, or other geological feature characterized by a slope of forty-five (45) degrees (100% slope) or more from the horizontal. ~~(3-31-22)~~( )

32. **Septic Tank**. A watertight, covered receptacle designed and constructed to receive wastewater discharge, separate solids from liquid, digest organic matter, store digested solids through a period of detention, and allow clarified liquids to discharge for final disposal. ( )

33. **Septic Tank Facility**. A septic tank or series of septic tanks preceding a subsurface disposal system. Tanks or compartments used for housing pretreatment products or used as dosing chambers are not considered part of the septic tank facility. ( )

34. **Septage**. As defined in IDAPA 58.01.16, Wastewater Rules. ( )

3~~4~~5. **Service Provider**. Any person, corporation, or firm engaged in the business of providing operation, maintenance, and monitoring of complex alternative systems in the state of Idaho. (3-31-22)

3~~5~~6. **Sewage**. ~~Sewage has the same meaning as wastewater~~ As defined in IDAPA 58.01.16, Wastewater Rules. ~~(3-31-22)~~( )

~~**36. Soil Texture**. The relative proportion of sand, silt, and clay particles in a mass of soil.~~ ~~(3-31-22)~~

37. **Standard System**. ~~Any system recognized by the Board through the adoption of design and construction regulations~~ An effluent sewer, one (1) or more aggregate filled trenches, and a gravity flow wastewater distribution system. ~~(3-31-22)~~( )

38. **Subsurface Disposal System**. Any system with a point of discharge beneath the earth's surface. ~~(3-31-22)~~( )

39. **Surface Water - Intermittent, Permanent, Temporary**. (3-31-22)

a. Any waters ~~of the State which flow or are contained in natural or man-made depressions in the earth's surface. This includes,~~ including but ~~is~~ not limited to, lakes, streams, canals, and ditches. ~~(3-31-22)~~( )

b. ~~An i~~Intermittent surface water exists continuously for ~~a period of~~ more than two (2) months but not more than six (6) months a year. ~~(3-31-22)~~( )

c. ~~A p~~Permanent surface water exists continuously for ~~a period of~~ more than six (6) months a year. ~~(3-31-22)~~( )

d. ~~A t~~Temporary surface water exists continuously for ~~a period of~~ less than two (2) months a year. ~~(3-31-22)~~( )

40. **System**. Beginning at the point of entry, physically connected piping, treatment devices, receptacles, structures, or areas of land designed, used or dedicated to convey, store, stabilize, neutralize, treat, or dispose of blackwaste or wastewater. ~~(3-31-22)~~( )

41. **Trench**. A drainfield excavation six (6) feet or less in width. ( )

4~~1~~2. **Wastewater**. ~~Any combination of liquid or water and pollutants from activities and processes occurring in dwellings, commercial buildings, industrial plants, institutions and other establishments, together with any groundwater, surface water, and storm water that may be present; liquid or water that is chemically, biologically, physically or rationally identifiable as containing blackwater, grey water or commercial or industrial pollutants; and sewage~~ As defined in IDAPA 58.01.16, Wastewater Rules. ~~(3-31-22)~~( )

~~**42. Waters of the State**. All the accumulations of water, surface and underground, natural and artificial, public and private or parts thereof which are wholly or partially within, which flow through or border upon the state of Idaho.~~ ~~(3-31-22)~~

~~**43. Water Table**. The surface of an aquifer.~~ ~~(3-31-22)~~

004. GENERAL REQUIREMENTS.

01. **Intent of Rules**. The Idaho Board of Environmental Quality, ~~in order~~ to protect the health, safety, and environment of the people of the state of Idaho establishes these rules governing the design, construction, siting and abandonment of individual and subsurface sewage disposal systems. These rules are intended to ensure that blackwastes and wastewater generated in the state of Idaho are safely contained and treated and that blackwaste and wastewater contained in or discharged from each system: ~~(3-31-22)~~( )

a. Are not accessible to insects, rodents, or other wild or domestic animals; (3-31-22)

b. Are not accessible to individuals; (3-31-22)

c. Do not ~~give rise to~~ create a public nuisance due to odor or unsightly appearance; ~~(3-31-22)~~( )

d. Do not injure or interfere with existing or potential beneficial uses of the waters ~~of the State.~~; and ~~(3-31-22)~~( )

e. Do not have an adverse impact on public health or the environment. ( )

02. Compliance with Intent ~~Required~~. The Director ~~shall~~ will not authorize or approve any system if, in the ~~opinion of the~~ Director's opinion, the system will not ~~be~~ (~~is~~does not) ~~in compliance~~ comply with the intent of these rules. ~~(3-31-22)~~( )

03. System Limitations. Cooling water, backwash or backflush water, hot tub or spa water, air conditioning water, water softener brine, groundwater, oil, ~~or~~ roof drainage, or other substances detrimental to the system's performance or to groundwater quality cannot be discharged into any system unless that discharge is approved by the Director. ~~(3-31-22)~~( )

04. Increased Flows. Unless authorized by the Director, ~~no person shall~~ it is unlawful for any person to provide for or connect additional blackwaste or wastewater sources to any system if the resulting flow or volume would exceed the approved design flow of the system. ~~(3-31-22)~~( )

05. Failing System. The owner of any failing system ~~shall~~ must obtain a permit and ~~cause~~ repair the failing system ~~'s repair~~: ~~(3-31-22)~~( )

a. As soon as practical after the owner becomes aware of its failure; or (3-31-22)

b. As directed ~~in~~ with proper notice from the Director. ~~(3-31-22)~~( )

06. Subsurface Disposal System Replacement Area. An area of land ~~which is~~ suitable ~~in all respects~~ for the complete replacement of a new subsurface disposal system disposal field ~~shall~~ must be reserved as a replacement area. This area ~~will~~ must be kept vacant, free of vehicular traffic, and free of any soil modification ~~which~~ that would negatively affect its use as a replacement disposal field construction site. ~~(3-31-22)~~( )

07. Technical Guidance Committee (TGC). The Director ~~shall~~ appoints a TGC composed of three (3) representatives from the seven (7) ~~H~~health ~~D~~districts, one (1) representative from the Department of ~~Environmental Quality~~, one (1) professional engineer licensed in the state of Idaho and one (1) licensed installer. ~~Initially two (2) committee members shall be appointed to each of one (1), two (2) and three (3) year terms.~~ Appointments to vacancies ~~thereafter shall be to~~ are three (3) year terms. ~~(3-31-22)~~( )

08. TGC Duties ~~of the TGC~~. The TGC ~~shall~~ maintains the TGM ~~to be~~ used in the design, construction, alteration, operation, and maintenance of conventional systems, their components, and alternatives. The TGC ~~shall~~ reviews variances requests and commercially manufactured wastewater treatment components and systems at the request of the Director and provides recommendations. ~~(3-31-22)~~( )

09. TGM. The TGM maintained by the TGC ~~shall~~ provides ~~state-of-the-art~~ technical guidance on alternative sewage disposal components and systems, soil type determination methodology, and other information pertinent to the best management practices of individual and subsurface sewage disposal. ~~(3-31-22)~~( )

10. Alternative System. If a standard system ~~as described in these rules~~ cannot be installed on a parcel of land, an alternative system may be permitted if that system is installed in accordance with the TGC's recommendations ~~of the TGC~~ and is approved by the Director as ~~set forth~~ stated in Section 009. ~~(3-31-22)~~( )

005. PERMIT AND PERMIT APPLICATION.

01. Permit Required. Except as specified in Subsection 005.02 ~~it shall be unlawful for any~~ no person ~~to cause or to perform the modification~~ may modify, repair, or expand or ~~construction of~~ install any individual or subsurface sewage disposal system within the state of Idaho unless there is a valid installation permit authorizing that activity. ~~(3-31-22)~~( )

02. ~~Exceptions to Permit Requirement~~Permit Exceptions. The activities listed in this subsection may be lawfully performed in the absence of a valid installation permit~~. They are, however,~~ but are subject to all other relevant rules and regulations. ~~(3-31-22)~~( )

a. Portable nondischarging systems may be installed ~~where needed~~ as temporary blackwaste or wastewater systems if ~~they are~~ properly maintained and ~~if they are~~ of a design ~~which has been~~ approved by the Director. ~~(3-31-22)~~( )

b. Individual and subsurface disposal systems may be repaired when needed ~~as a result of~~ due to clogged or broken solid piping or ~~of~~ malfunctions in an electrical or mechanical system. ~~Such repair~~ Repairs may not expand the system unless authorized by the Director. ~~(3-31-22)~~( )

03. Permit Application. The owner of the system or ~~the owner's~~ their authorized representative ~~shall make~~ must submit the application to the Director ~~in writing and in a manner or form prescribed by the Director~~ in an approved form. ~~(3-31-22)~~( )

04. ~~Contents of Application~~Application Contents. ~~A permit application will be used to help determine if the proposed construction will be in conformance with applicable rules and regulations.~~ Information required in the application may include, but is not limited to: ~~(3-31-22)~~( )

a. ~~The n~~Name and address of the owner of the system and of the applicant, if different; ~~(3-31-22)~~( )

b. ~~The l~~Legal description of the parcel of land; ~~(3-31-22)~~( )

c. ~~The t~~Type of establishment served; ~~(3-31-22)~~( )

d. ~~The m~~Maximum number of persons served, number of bedrooms, or other appropriate measure of wastewater flow; ~~(3-31-22)~~( )

e. ~~The t~~Type of system; ~~(3-31-22)~~( )

f. ~~The c~~Construction activity (new construction, enlargement, repair); ~~(3-31-22)~~( )

g. ~~A s~~Scaled or dimensioned plot plan including, if needed, adjacent properties illustrating: ~~(3-31-22)~~( )

i. ~~The l~~Location and size of all existing and proposed wastewater systems including disposal field replacement areas; ~~(3-31-22)~~( )

ii. ~~The l~~Location of all existing water supply system features; ~~(3-31-22)~~( )

iii. ~~The l~~Location of all surface waters; ~~(3-31-22)~~( )

iv. ~~The l~~Location of scarps, cuts, and rock outcrops; ~~(3-31-22)~~( )

v. Land elevations~~, surface contours, and ground slopes~~ between features of interest; ~~(3-31-22)~~( )

vi. Property lines, easements, and rights-of-way; and (3-31-22)

vii. Location and size of buildings and structures. (3-31-22)

h. ~~The p~~Plans and specifications of the proposed system ~~which include~~ including: ~~(3-31-22)~~( )

i. Diagrams of all system facilities ~~which are to be~~ made or fabricated at the site; ~~(3-31-22)~~( )

ii. ~~The m~~Manufacturer's name and identification of any component approved ~~pursuant to~~ under Sections 007 and 009; and ~~(3-31-22)~~( )

iii. List of materials. (3-31-22)

i. Site evaluation report that includes but is not limited to a ~~S~~soil description and profile~~,~~ and groundwater data~~, percolation or permeability test results and/or a site evaluation report~~; ~~(3-31-22)~~( )

j. ~~The n~~Nature and quantity of blackwaste and wastewater ~~which~~ the system ~~is to~~ will receive, including the basis for that estimate; ~~(3-31-22)~~( )

k. Proposed operation, maintenance, and monitoring procedures to ~~insure~~ ensure the system's performance and failure detection; ~~(3-31-22)~~( )

l. Copies of legal documents relating to access and to responsibilities for operation, maintenance, and monitoring; (3-31-22)

m. ~~A s~~Statement from the local zoning or building authority indicating ~~that~~ the proposed system would not be contrary to local ordinances; ~~(3-31-22)~~( )

n. ~~The s~~Signature of the owner of the ~~proposed~~ system and, if different, of the applicant; and ~~(3-31-22)~~( )

o. Any other information, document, or condition ~~that may be~~ required by the Director to substantiate that the ~~proposed~~ system will comply with applicable rules and regulations. ~~(3-31-22)~~( )

05. ~~Basis for~~ Permit Application Denial. The Director may deny a permit application if in the Director's judgment: ~~(3-31-22)~~( )

a. The application is incomplete, inaccurate, or misleading; (3-31-22)

b. The system as proposed is not in compliance with applicable rules and regulations; (3-31-22)

~~**c. The system as proposed would, when put into use, be considered a failing system; (3-31-22)**~~

~~**d. The design and description of a public system was not made by a professional engineer; (3-31-22)**~~

~~**e**~~**c.** The ~~P~~public or central wastewater treatment facilities are reasonably accessible. ~~(3-31-22)~~( )

06. Notice of Denial. Upon denial of an application the Director ~~shall~~ will notify the applicant of the reason for denial. ~~(3-31-22)~~( )

07. Permit Issuance ~~of Permit~~. When, in the Director's opinion ~~of the Director~~ the system as proposed will ~~be in conformance~~ conform with applicable rules ~~and regulations~~, the Director ~~shall~~ will issue an "Individual and Subsurface System Installation Permit."~~.~~ ~~(3-31-22)~~( )

08. Valid Application and Permit ~~Valid for One Year~~. Unless otherwise stated on the application or permit, it ~~shall~~ will become invalid if the authorized construction or activity is not completed and approved within ~~one~~ two (~~1~~2) years of the date of issuance. ~~(3-31-22)~~( )

09. Permit Renewal. At the Director's discretion ~~of the Director~~, a permit may be renewed ~~one (1) or more times~~ upon request by the applicant or owner ~~provided that~~ if the request is received by the Director ~~prior to~~

before the permit's date of expiration. ~~(3-31-22)~~( )

10. ~~Immediate Effect of the~~ Permit Effect. A valid permit authorizes the construction of an individual or subsurface disposal system and requires ~~that~~ the construction be conducted in compliance with plans, specifications, and conditions contained in the approved permit application. Any deviation from the plans, specifications, ~~and~~ or conditions is prohibited unless it is approved in advance by the Director. ~~(3-31-22)~~( )

~~**11. Cottage Site Facility Certification**. A valid permit shall constitute certification and approval for the purposes of Section 39-3637, Idaho Code. (3-31-22)~~

~~**12. Existing Installation Permits**. Individual and subsurface sewage disposal installation permits or other lot-specific approvals for systems issued prior to February 7, 1978, pursuant to Idaho Code Title 39, Chapter 1 and Title 39, Chapter 36, will become invalid one (1) year after written notice is given by the Director notifying the owner or holder of such a permit or approval that the permit or approval will no longer be valid unless construction or installation of the system provided for in the permit or approval is commenced within one (1) year after giving of the notice. This provision does not apply to certificates filed to satisfy a sanitary restriction pursuant to Section 50-1326, Idaho Code. (3-31-22)~~

1~~3~~1. Abandonment ~~May Be Required~~. The Director may require as a condition for issuing a permit that the system be abandoned by a specified date or ~~under~~ specific predetermined circumstances. The date or circumstances will be established before ~~the issuance of~~ issuing the permit and be contained in the permit application. These conditions may relate to a specific date, dwelling density, ~~completion of a~~ municipal system completion or other circumstances ~~relative to the~~ regarding availability of central sewerage system services. ~~(3-31-22)~~( )

1~~4~~2. Operation, Maintenance, and Monitoring. ~~(3-31-22)~~( )

a. The Director may require, as a condition of issuing a permit, ~~that~~ specific operation, maintenance, and monitoring procedures be observed. Those procedures will be contained in the installation permit. ~~(3-31-22)~~( )

b. All operation, maintenance, and monitoring requirements of installation permits including effluent sampling ~~shall~~ must be perpetual unless: ~~(3-31-22)~~( )

i. The system is not installed; (3-31-22)

ii. The system is removed, abandoned, or replaced; or (3-31-22)

iii. The permit is amended or revoked by the Director. (3-31-22)

c. If a system ~~gains approval~~ is approved as described by the TGM, sampling requirements may be removed. ~~(3-31-22)~~( )

~~**15. As-Built Plans and Specifications**. The Director may require as a condition of issuing a permit, that complete and accurate record drawings and specifications depicting the actual construction be submitted to the Director within thirty (30) days after the completion of the construction. Alternately, if the construction proceeded in compliance with the approved plans and specifications, a statement to that effect may be submitted. (3-31-22)~~

1~~6~~3. Permit Fee. All applications ~~shall~~ must be accompanied by payment ~~of the fee~~ specified in IDAPA 58.01.14, ~~Section 110,~~ "Rules Governing Fees for Environmental Operating Permits, Licenses, and Inspection Services". ~~(3-31-22)~~( )

006. ~~INSTALLER'S REGISTRATION PERMIT AND SERVICE PROVIDER CERTIFICATION~~REGISTRATION PERMITS FOR INSTALLERS AND SERVICE PROVIDERS.

01. Permit ~~and Certification~~ Required. Every installer and service provider ~~shall~~ must secure from the Director a ~~n installer's~~ registration permit. ~~Service providers must also obtain a service provider's certification.~~ Two (2) types of installer permits and one (1) type of service provider ~~certification~~ permit are available.

~~(3-31-22)~~( )

a. A ~~standard and~~ basic ~~alternative~~ system installer's ~~registration~~ permit is required to install all individual systems not listed under Subsection 006.01.b. ~~(3-31-22)~~( )

b. A complex ~~alternative~~ system installer's ~~registration~~ permit is required to install evapotranspiration systems, ETPSs, lagoon systems, ~~large soil absorption systems~~ LSASs, pressure distribution systems, ~~proprietary wastewater treatment~~ PWTP systems, intermittent sand filters, sand mounds, or other alternative systems ~~as may be~~ specified ~~by the Director~~ in the TGM. ~~(3-31-22)~~( )

c. A service provider ~~certification~~ permit is required to perform operation, maintenance, or monitoring of ETPSs and any other Director-identified complex ~~alternative~~ systems. ~~(3-31-22)~~( )

02. Examination. The initial issuance of the installer's ~~permit and~~ or service provider's ~~certification shall~~ permit will be based on ~~the completion of~~ completing an examination, with a passing score of seventy percent (70%) or more~~, of the applicant's knowledge of the principles set forth in these rules and the applicable sections of the Technical Guidance Manual. The examinations will be prepared, administered and graded by the Director.~~ The installer ~~examination~~ and service provider examinations ~~shall be~~ are separate ~~exams~~. ~~(3-31-22)~~( )

03. Permits ~~and Certifications~~ Required Annually. ~~Registration permits and service provider certifications~~ Installer and service provider permits expire annually on the first (1st) day of January, and all permits ~~and certifications~~ issued thereafter will be ~~issued~~ for the balance of the calendar year. Additionally, installers ~~and service providers shall~~ will attend at least one (1) refresher course approved by the ~~state of Idaho,~~ Department ~~of Environmental Quality,~~ every three (3) years. ~~Individuals holding both a complex installer registration permit and service provider certification shall attend one refresher course for the complex installer registration permit and another course for the service provider certification. Installer and service provider refresher courses are not interchangeable.~~ ~~(3-31-22)~~( )

04. ~~Contents of~~ Application Contents. ~~(3-31-22)~~( )

a. Applications for installer ~~permits~~ and service provider ~~certifications shall~~ permits must: ~~(3-31-22)~~( )

i. Be in writing~~:~~; ~~(3-31-22)~~( )

ii. Be signed by the applicant or ~~by~~ an officer or authorized agent of a corporation~~:~~; ~~(3-31-22)~~( )

iii. Contain the name and address of the applicant; and (3-31-22)

iv. Indicate whether the permit is ~~to be~~ for; ~~(3-31-22)~~( )

(1) Installation of standard and basic alternative systems; (3-31-22)

(2) Installation of standard, basic and complex alternative systems; or (3-31-22)

(3) ~~Installation of standard, basic and complex alternative systems and certification as a~~A service provider; and ~~(3-31-22)~~( )

v. Contain the expiration date of the bond required by Subsection 006.05. (3-31-22)

b. Additionally, for applicants seeking ~~certification as~~ a service provider permit, the application ~~shall also~~ must contain documentation of manufacturer specific training, ~~as required by~~ described in Subsection 006.06.a. ~~(3-31-22)~~( )

05. Bond Required. At the time of application, all applicants~~, including those~~ seeking a basic or complex installer's permit, or a service provider ~~certification, shall~~ permit must deliver to the Director a bond ~~in a form approved by the Director in the sum of five thousand dollars ($5,000) for a standard and basic alternative system~~

~~installer's registration permit, or in the sum of fifteen thousand dollars ($15,000) for standard, basic and complex alternative system installer's registration permit.~~ The bond ~~will~~ must: ( )

a. Be in a form approved by the Director; ( )

b. Be in the sum of ten thousand dollars ($10,000) for a basic installer's or service provider's permit, or thirty thousand dollars ($30,000) for a complex installer's permit; ( )

c. ~~b~~Be executed by a surety company duly authorized to do business in the state of Idaho and ~~must~~ run concurrent with the ~~installer's registration~~ permit~~.~~; and ( )

d. ~~The bond shall be approved by the Director and must g~~Guarantee the installer or service provider's faithful performance of all work undertaken under the provisions of the ~~installer's registration permit or service provider certification~~ installer's or service provider's permit, or both. ( )

06. Damages. Any person who suffers damage ~~as the result of~~ from negligent or wrongful acts of the installer or service provider or by the installer's or service provider's failure to competently perform any of the work agreed to be done under the terms of the registration permit ~~or certification shall~~ will, in addition to other legal remedies, have a right of action on the bond for all damages not exceeding ~~five~~ ten thousand dollars ($~~5~~10,000) for standard and basic alternative systems or operation, maintenance, and monitoring by certified service providers or ~~fifteen~~ thirty thousand dollars ($~~15~~30,000) for complex alternative systems ~~or required operation, maintenance, or monitoring by certified service providers~~. The maximum liability of the ~~surety and/or~~ sureties on the bond, regardless of the number of claims filed against the bond, ~~shall~~ must not exceed the sum of ~~five~~ ten thousand dollars ($~~5~~10,000) for standard and basic alternative systems or operations, maintenance, and monitoring by certified service providers or ~~fifteen~~ thirty thousand dollars ($~~15~~30,000) for complex alternative systems ~~or required operation, maintenance, or monitoring by certified service providers~~. ~~(3-31-22)~~( )

0~~6~~7. Service Provider Responsibilities. All ~~certified~~ permitted service providers ~~who provide operation, maintenance, or monitoring for~~ operate, maintain, or monitor any ~~complex alternative~~ system are responsible for compliance with ~~each of these~~ all rules ~~that are~~ relevant to those services. Additionally, each ~~certified~~ service provider ~~shall~~ must: ~~(3-31-22)~~( )

a. Obtain documentation of the completed manufacturer-specific training of each manufactured and packaged treatment system ~~for which~~ the service provider intends to ~~provide operation, maintenance, or monitoring~~ operate, maintain, or monitor. Proper documentation includes a certificate or letter of training completion provided by the manufacturer and an expiration date of the manufacturer's certification. If a system manufacturer is no longer in business, that manufacturer-specific training is not required; ~~(3-31-22)~~( )

b. Maintain a comprehensive list of real property owners who contracted with the certified service provider, including the current real property owner name, service property address, real property owner contact address, and ~~subsurface sewage disposal~~ installation permit number. This list ~~shall~~ must be provided to the Director as part of the annual operation, maintenance, and monitoring reports for individual real property owners; ~~(3-31-22)~~( )

c. Notify the system owner in writing of any improper system function that cannot be remedied during ~~the time of~~ operation, maintenance, and monitoring services; and ~~(3-31-22)~~( )

d. Submit all operation, maintenance, and monitoring records in ~~the form of~~ an annual report for each individual real property owner for whom the service provider agrees to fulfill the real property owner's operation, maintenance, or monitoring responsibilities required in Subsection 009.03. The annual reports ~~are to~~ must be provided to the Director by the timeframe specified in the TGM for the specific ~~complex~~ alternative system for which operation, maintenance, or monitoring is required. ~~(3-31-22)~~( )

0~~7~~8. Exemption. An installer's permit ~~shall not be~~ is not required for: ~~(3-31-22)~~( )

a. Any person, corporation, or firm constructing a central or municipal subsurface sewage disposal system if that person, corporation, or firm is a licensed public works contractor ~~as provided in Title 54, Chapter 19,~~

~~Idaho Code~~, is experienced in the type of system to be installed and is under the direction of a professional engineer licensed in the state of Idaho; or ~~(3-31-22)~~( )

b. Owners installing their own standard or basic alternative system~~s~~ as described in the TGM. ~~(3-31-22)~~( )

0~~8~~9. Application Fee. All applications ~~shall~~ must be accompanied by payment of the fee specified in IDAPA 58.01.14, ~~Section 120,~~ "Rules Governing Fees for Environmental Operating Permits, Licenses, and Inspection Services.". ~~(3-31-22)~~( )

~~**09. Grounds for Revocation**. Failure to comply with these rules shall be grounds for revocation of the permit or the certification, or both. (3-31-22)~~

~~**10. Transfer from Non-Profit Operation and Maintenance Entity to Certified Service Provider**. (3-31-22)~~

~~**a.** Real property owners who want to install ETPSs must retain a permitted installer and certified service provider. An easement granting general access to a non-profit operation and maintenance entity is no longer required for ETPS installation permits. (3-31-22)~~

~~**b.** Beginning July 1, 2017, real property owners who had ETPSs installed are not required to be members of non-profit operation and maintenance entities. To meet the operation, maintenance, and monitoring requirements of their ETPSs, real property owners shall retain a certified service provider for their existing ETPSs. (3-31-22)~~

007. SEPTIC TANKS DESIGN AND CONSTRUCTION STANDARDS.

01. Materials. New septic tanks will be constructed of concrete, or other materials approved by the Director. Steel tanks are unacceptable. (3-31-22)

02. Design. A professional engineer licensed by the state of Idaho must submit all septic tank designs to the Department for approval. If any design submitted for approval does not meet all requirements in Section 007, the engineer must demonstrate that any deviation is determined by sound engineering practice and meets the intent of the rules. ( )

0~~2~~3. Construction Requirements. All septic tanks will be water tight, constructed of sound, durable materials, and not subject to excessive corrosion, decay, frost damage or cracking. ~~(3-31-22)~~( )

0~~3~~4. Concrete Septic Tanks. New concrete septic tanks will at a minimum meet the following requirements: (3-31-22)

a. The walls and floor must be at least two and one-half (2 1/2) inches thick if adequately reinforced and at least six (6) inches thick if not reinforced. (3-31-22)

b. The ~~C~~concrete lids or covers must be at least three (3) inches thick and adequately reinforced. ~~(3-31-22)~~( )

c. The floor and at least a six (6) inch vertical portion of the walls of a poured tank must be poured at the same time (monolithic pour). (3-31-22)

d. The ~~W~~wall sections poured separately must have interlocking joints on joining edge. ~~(3-31-22)~~( )

e. All concrete outlet baffles must be finished with an asphalt or other protective coating. (3-31-22)

0~~4~~5. Horizontal Dimension Limit. No interior horizontal dimension of a septic tank or compartment may be less than two (2) feet. (3-31-22)

056. **Liquid Depth**. The liquid depth ~~shall~~ must be at least two and one-half (2 1/2) feet ~~but not greater than five (5) feet~~. ~~(3-31-22)~~( )

067. **Manufactured Tank Markings**. Septic tanks manufactured in accordance with a specified design approved by the Director, will be legibly and indelibly marked with the manufacturer's name or trademark, total liquid capacity, and ~~shall~~ must indicate the tank's inlet and outlet. ~~(3-31-22)~~( )

078. **Minimum Tank Capacities**. (3-31-22)

a. Tanks serving ~~one (1) or two (2)~~ single dwelling units~~:~~. The minimum tank capacity is one thousand (1,000) gallons. For each bedroom over four (4) in a dwelling unit, add fifty (50) gallons.

~~MINIMUM CAPACITY PER DWELLING UNIT~~	
~~Number of Bedrooms~~	~~Minimum Liquid Capacity (Gallons)~~
~~1 or 2~~	~~900~~
~~3 or 4~~	~~1,000~~

~~For each bedroom over four (4) add two hundred fifty (250) gallons.~~ ~~(3-31-22)~~( )

b. Tanks serving all other flows. ~~Septic tank capacity shall be equal to two (2) times the average daily flow as determined from Subsection 007.08.~~ The minimum tank capacity ~~shall be seven hundred and fifty (750)~~ per structure is one thousand (1,000) gallons or a volume equal to at least two (2) times the maximum daily flow, whichever is greater. ~~(3-31-22)~~( )

089. **Wastewater Flows from Various Establishments in Gallons per Day**.

ESTABLISHMENTS	
DWELLING UNIT	
Single Family Dwelling, ~~and~~ Apartment, Mobile Home~~s~~, 3 bedroom. Add/subtract 50 gallons per day/bedroom	250/Unit
MULTIPLE RESIDENTIAL	
Hotel/Motel: With Private Baths Without Private Baths	 60/Bedspace 40/Bedspace
Overnight Accommodation: Central Toilet Central Toilet & Shower	 25/Person 35/Person
~~Motel:~~ ~~With Kitchenette~~	~~40/Bedspace~~ ~~60/Bedspace~~
~~Boarding House:~~ ~~Add for each nonresident~~	~~150/Bedspace~~ ~~25~~
Rooming House/Bunk House Staff Resident Nonresident	40/Resident 40/Staff 15/Staff
~~Apartments~~	~~250/Unit~~

ESTABLISHMENTS	
INSTITUTIONAL	
~~Assembly Hall/Meeting House~~	~~2/Seat~~
Church/Assembly Hall/Meeting House: With Kitchen	3/Seat 7/Seat
Hospital: Kitchen only Laundry only	250/Bedspace 25/Bedspace 40/Bedspace
Nursing Home/Rest Home	125/Bedspace
Day School: Without Showers With Showers With Cafeteria, add Staff-Resident Nonresident	 20/Student 25/Student 3/Student 40/Staff 20/Staff
FOOD SERVICE	
Conventional Service: Toilet & Kitchen Wastes Kitchen Wastes	 13/Meal 3.3/Meal
Take Out or Single Service	2/Meal
~~Dining Hall:~~ ~~Toilet & Kitchen Wastes~~ ~~Kitchen Wastes~~	 ~~8/Meal~~ ~~3.3/Meal~~
Drinking Establishment	2/Person
~~Food Service Employee~~	~~15/Employee~~
COMMERCIAL AND INDUSTRIAL	
~~Bowling Alley~~	~~125/Lane~~
Laundry - Self Service	50/Wash
~~Public Transportation Terminal~~	~~5/Fare~~
Service Station	10/Vehicle
~~Car Wash:~~ ~~1st Bay~~ ~~Additional Bays~~	~~50/Vehicle~~ ~~1000~~ ~~500 each~~
Shopping Center (No food/laundry)	1/Pkg.Sp.
Theaters ~~(including Concession Stand):~~ ~~Auditorium~~ ~~Drive-in~~	 5/Seat ~~10/Space~~
Offices	20/Employee

ESTABLISHMENTS	
Factories: No Showers With Showers Add for Cafeteria	 25/Employee 35/Employee 5/Employee
Stores	2/Employee
SEASONAL AND RECREATIONAL	
~~Fairground (Peak Daily Attend)~~	~~1/Person~~
~~Stadium~~	~~2/Seat~~
Swimming Pool: Toilet & Shower Wastes	 10/Person
Parks & Camps (Day Use): Toilet & Shower Wastes	 15/Person
Roadside Rest Area: Toilet & Shower Wastes Toilet Waste	 10/Person 5/Person
~~Overnight Accommodation:~~ ~~Central Toilet~~ ~~Central Toilet & Shower~~	 ~~25/Person~~ ~~35/Person~~
Designated Camp Area: Toilet & Shower Wastes Toilet Wastes	 90/Space 65/Space
~~Seasonal Camp~~	~~50/Space~~
~~Luxury Cabin~~	~~75/Person~~
Travel Trailer Park with Sewer & Water Hook-up	125/Space
Seasonal/Construction Camp	50/Person
~~Resort Camps~~	~~50/Person~~
~~Luxury Camps~~	~~100/Person~~
Country Clubs Resident Member Add for Nonresident Member	100/Member 25/Person
Public Restrooms: Toilet Wastes Toilet & Shower Wastes	 5/Person 15/Person

~~(3-31-22)~~( )

~~09~~10. **Total Volume**. The total volume of a septic tank ~~will~~ at a minimum must be one hundred fifteen percent (115%) of its liquid capacity. ~~(3-31-22)~~( )

1~~0~~1. **Inlets**. (3-31-22)

a. The inlet into the tank ~~will~~ be at least four (4) inches in diameter and enter the tank three (3) inches above the liquid level. ~~(3-31-22)~~( )

b. The inlet of the septic tank and each compartment ~~will~~ must be submerged by means of a vented tee or baffle. ~~(3-31-22)~~( )

c. Vented tees or baffles ~~will~~ must extend above the liquid level seven (7) inches or more but not closer than one (1) inch to the ~~top~~ lid of the tank. ~~(3-31-22)~~( )

d. Tees ~~should~~ must not extend horizontally into the tank beyond two (2) times the diameter of the inlet. ~~(3-31-22)~~( )

1~~1~~2. Outlets. (3-31-22)

a. The outlet of the tank ~~will~~ must be at least four (4) inches in diameter. ~~(3-31-22)~~( )

b. The outlet of the septic tank and each compartment ~~will~~ must be submerged by ~~means of~~ a vented tee or baffle. ~~(3-31-22)~~( )

c. Vented tees and baffles ~~will~~ must extend above the liquid level seven (7) inches or more ~~above the liquid level~~ but not closer than one (1) inch to the inside ~~top~~ lid of the tank. ~~(3-31-22)~~( )

d. Tees and baffles ~~will~~ must extend below the liquid level to a depth where forty percent (40%) of the tank's liquid volume is above the bottom of the tee or baffle. ~~For vertical walled rectangular tanks, this point is at forty percent (40%) of the liquid depth. In horizontal cylindrical tanks this point is about thirty-five percent (35%) of the liquid depth.~~ ~~(3-31-22)~~( )

e. Tees and baffles ~~should~~ must not extend horizontally into the tank beyond two (2) times the diameter of the outlet. ~~(3-31-22)~~( )

1~~2~~3. Scum Storage. A septic tank will provide an air space above the liquid level which will be equal to or greater than fifteen percent (15%) of the tank's liquid capacity. ~~For horizontal cylindrical tanks, this condition is met when the bottom of the outlet port is located at nineteen percent (19%) of the tank's diameter when measured from the inside top of the tank.~~ ~~(3-31-22)~~( )

1~~3~~4. Manholes. Manholes must extend to the finished grade. Access to each septic tank or compartment ~~shall~~ must be provided by a manhole twenty (20) inches in minimum dimension or a removable cover of equivalent size. Each manhole cover ~~will~~ must be provided with a corrosion resistant strap or handle to facilitate removal. ~~(3-31-22)~~( )

1~~4~~5. Inspection Ports. An inspection port measuring at least eight (8) inches in ~~its~~ minimum dimension will be placed above each inlet and outlet. Manholes may be substituted for inspection ports. ~~(3-31-22)~~( )

1~~5~~6. Split Flows. The wastewater from a single building sewer or sewer line ~~may~~ must not be divided and discharged into more than one (1) septic tank or compartment. ~~(3-31-22)~~( )

1~~6~~7. Multiple Tank or Compartment Capacity. Multiple ~~septic tanks~~ or compartmented septic tanks connected in series may be used ~~so long as~~ if the sum of their liquid capacities is at least equal to the minimum tank capacity ~~computed~~ in Subsection 007.07, and the initial tank or compartment has a liquid capacity of ~~more than~~ at least one-half (1/2) ~~but no more than two-thirds (2/3)~~ of the total liquid capacity of the septic tank facility. ~~(3-31-22)~~( )

1~~7~~8. Minimum Separation Distances Between Septic Tanks and Features of Concern.

Features of Concern		Minimum Distance to Septic Tank in Feet
Well or Spring or Suction Line	Public Water	100
	Other	50

Features of Concern		Minimum Distance to Septic Tank in Feet
Water Distribution Line	Public Water Other	25 10
Permanent or Intermittent Surface Water		50
Temporary Surface Water		25
Downslope Cut or Scarp		~~25~~10
Dwelling Foundation or Building		5
Property Line		5
Seasonal High Water Level (Vertically from Top of Tank)		2

~~(3-31-22)~~( )

1~~8~~9. ~~**Installation of** ~~**Manufactured Tank~~s Installation**. If written installation instructions are provided by the manufacturer of a septic tank, the installer must follow those instructions relative to the stability and integrity of the tank ~~are to be followed~~ unless otherwise specified in the installation permit ~~of these rules~~. ~~(3-31-22)~~( )

~~**19. Manhole Extension**. If the top of the septic tank is to be located more than twenty-four (24) inches below the finished grade, manholes will be extended to within eighteen (18) inches of the finished grade. (3-31-22)~~

~~**20. Sectional Tanks**. Sectional tanks will be joined in a manner that will insure that the tank is watertight. (3-31-22)~~

2~~1~~0. **Inlet and Outlet Piping**. Unless otherwise specified in the installation permit, piping material to and from a septic tank or dosing chamber~~, to points three (3) feet beyond the tank excavation shall~~ and to be drainfeild must be ~~of a material~~ approved by the Director~~. The following materials are required:~~ and specified as follows. ~~(3-31-22)~~( )

a. ABS schedule forty (40) piping or material of equal or greater strength ~~piping shall be used to span the excavations for the septic tank and dosing chamber~~. ~~(3-31-22)~~( )

b. ASTM D-3034 or equivalent plastic pipe may be used to span the septic tank and dosing chamber if the excavation is compacted with fill material. ~~(3-31-22)~~( )

~~i. The fill material must be granular, clean and compacted to ninety percent (90%) standard proctor density. (3-31-22)~~

~~ii. Placement of ASTM D-3034 on undisturbed earth is suitable, but in no installation shall there be less than twelve (12) inches of cover over the pipe. (3-31-22)~~

2~~2~~1. **Effluent Pipe Separation Distances**. Effluent pipes ~~shall not be installed closer than fifty (50) feet from a well~~ have the same separation distance requirements as septic tanks unless otherwise approved by the Director. ~~(3-31-22)~~( )

2~~3~~2. **Septic Tank Abandonment**. ~~Responsibility of properly abandoning a septic tank shall remain with t~~The property owner is responsible for septic tank abandonment and must use the following procedures. ~~Septic tanks shall be abandoned in accordance with the following:~~ ~~(3-31-22)~~( )

a. ~~Disconnection of~~ Disconnect the inlet and outlet piping; ~~(3-31-22)~~( )

b. ~~Pumping of~~Pump the scum and septage with approved disposal; and ~~(3-31-22)~~( )

c. Fill~~ing~~ the septic tank with earthen materials~~; or~~, physically destroy the septic tank, or remove the

septic tank from the ground. (3-31-22)( )

~~d. Physically destroying the septic tank or removing the septic tank from the ground.~~ (3-31-22)

008. STANDARD SUBSURFACE DISPOSAL FACILITY DESIGN AND CONSTRUCTION.

~~**01. Standard Drainfield**. A drainfield consisting of an effluent sewer, one (1) or more aggregate filled trenches and a gravity flow wastewater distribution system. These standards will be the basis of acceptable design and configuration. Overall dimensions of a specific facility will depend upon site characteristics and the volume of wastewater.~~ (3-31-22)

02~~1~~1. Site Suitability. The area ~~in which~~ where a standard drainfield ~~is to~~ will be constructed must meet the following conditions ~~stated in this subsection~~: (3-31-22)( )

a. ~~Slope.~~ The natural slope of the site will not exceed twenty percent (20%). (3-31-22)( )

b. ~~Soil types.~~ Suitable soil types ~~must~~ will be present at depths corresponding with the sidewalls of the proposed drainfield and at depths ~~which will be~~ between the bottom of the proposed drainfield and any limiting ~~soil~~ layer (effective soil depth).

Design Soil Group	Soil Textural Classification	USDA Field Test Textural Classification	
Unsuitable	Gravel	10 Mesh	
	Coarse Sand	10-35 Mesh	Sand
A	Medium Sand	35-60 Mesh	Sand
	Fine Sand	65-140 Mesh	Sand
	Loamy Sand		Sand
B	Very Fine Sand	140-270 Mesh	Sand
	Sandy Loam		Sandy Loam
	Very Fine Loamy Sand		Sandy Loam
	Loam		
	Silt Loam		Silt Loam
C	Silt		Silt Loam
	Clay Loam		Clay Loam
	Sandy Clay Loam		Clay Loam
	Silty Clay Loam		Clay Loam
Unsuitable	Sandy Clay		Clay
	Silty Clay		Clay
	Clay		Clay
	Clay soils with high shrink/swell potential		Clay
	Organic mucks		
	Claypan, Duripan,		
	Hardpan		

(3-31-22)( )

c. ~~Effective Soil Depths.~~ Effective soil depths, in feet, below the bottom of the drainfield must be equal to or greater than those values listed in the following table.

EFFECTIVE SOIL DEPTHS ~~TABLE~~			
~~Site Conditions~~	Design	Soil	Group
Limiting Layer	**A**	**B**	**C**
Impermeable Layer	4	4	4
Fractured Bedrock, ~~Fissured Bedrock~~ or Extremely Permeable Material	6	4	3
Normal High Groundwater Level	6	4	3
Seasonal High Groundwater Level	1	1	1

~~(3-31-22)~~( )

d. ~~Separation Distances.~~ The drainfield must be located so ~~that~~ the separation distances ~~given be~~ are maintained or exceeded according to the following ~~T~~table:

Feature of Interest	Soil Types All	A	B	C
Public Water Supply	100			
All wells and Other Domestic Water Supplies ~~including Springs and Suction Lines~~	100			
Water Distribution Lines: ~~Pressure~~(not double-encased) ~~Suction~~(double-encased)	 25 10~~0~~			
Permanent or Intermittent Surface Water other than Irrigation Canals & Ditches		~~300~~200	~~200~~125	100
Temporary Surface Water and Irrigation Canals and Ditches	50			
Downslope Cut or Scarp: Impermeable Layer Above Base Impermeable Layer Below Base		 75 50	 50 25	 50 25
Building Foundations: Crawl Space or Slab Basement	 10 20			
Property Line	5			

~~(3-31-22)~~( )

0~~3~~2. Subsurface Disposal Facility Sizing. The size of a subsurface disposal system ~~will be~~ is determined by the following procedures: ~~(3-31-22)~~( )

a. Daily flow estimates ~~should be~~ are determined in the same manner as ~~are~~ flow estimates for septic tank sizing in Subsection 007.08. ~~(3-31-22)~~( )

b. ~~The t~~Total required absorption area is obtained by dividing the estimated maximum daily flow by a value below or as specified in the TGM.

Design Soil Group	A	B	C
Absorption Area - Gallons/Square Foot/Day	1.0	0.5	0.2

~~(3-31-22)~~( )

c. ~~Required Area. The size of a~~An acceptable site must be large enough to construct two (2) complete drainfields in which each are sized to receive one hundred percent (100%) of the design wastewater flow.
~~(3-31-22)~~( )

0~~4~~3. Standard Subsurface Disposal Facility Specifications. ~~The following table presents a~~Additional design specifications for new subsurface sewage disposal facilities.

STANDARD SUBSURFACE DISPOSAL FACILITY ~~TABLE~~ SPECIFICATIONS	
Item	**All Soil Groups**
Length of Individual Distribution Laterals	100 Feet Maximum
Grade of Distribution Laterals and Trench Bottoms	Level
Width of Trenches	1 Foot Minimum 6 Feet Maximum
Depth of Trenches	2 Feet Minimum 4 Feet Maximum
Total Square Feet of Trench	1,500 Sq.ft. Max.
Undisturbed Earth Between Trenches	6 Feet Minimum
Undisturbed Earth Between Septic Tank and Trenches	6 Feet Minimum
Depth of Aggregate: Total Over Distribution Laterals Under Distribution Laterals	 12 In. Minimum 2 In. Minimum 6 In. Minimum
Depth of Soil Over Top of Aggregate	12 In. Minimum

~~(3-31-22)~~( )

0~~5~~4. Wastewater Distribution. Systems ~~shall~~ must be installed to maintain equal or serial effluent distribution. ~~(3-31-22)~~( )

0~~6~~5. Excavation. Trenches ~~will~~ must not be excavated during the period of high soil moisture content when that moisture promotes smearing and soil compaction ~~of the soil~~. ~~(3-31-22)~~( )

0~~7~~6. Soil Barrier. The aggregate ~~will~~ must be covered throughout with ~~untreated building paper,~~ a synthetic filter fabric (geotextile) ~~, a three (3) inch layer of straw~~ or other acceptable permeable material.
~~(3-31-22)~~( )

0~~8~~7. Aggregate. The trench aggregate ~~shall~~ must be crushed rock, gravel, or other acceptable, durable and inert material ~~which~~ that is ~~,~~ free of fines ~~,~~ and has an effective diameter from one-half (1/2) to two and one-half (2 1/2) inches. ~~(3-31-22)~~( )

0~~9~~8. Impermeable Surface Barrier. ~~No~~ A treatment area trench or replacement area ~~shall~~ may not be: ( )

a. Compacted. ( )

b. ~~e~~Covered by an impermeable surface barrier~~, such as tar paper, asphalt or tarmac~~; or ( )

c. ~~be u~~Used for parking or driving on~~, or in any way compacted~~ and ~~shall~~ must be adequately protected from such activities. ~~(3-31-22)~~( )

~~10~~09. ~~Standard~~ Absorption Bed. Absorption bed disposal facilities may be considered when a site is suitable for a standard subsurface disposal facility except that it is not large enough. ~~(3-31-22)~~( )

a. ~~General Requirements.~~ Except as specified in this section, rules ~~and regulations~~ applicable to a standard subsurface disposal system ~~are applicable~~ apply to an absorption bed facility. ~~(3-31-22)~~( )

b. ~~Slope Limitation.~~ Sites with slopes in excess of eight percent (8%) are not suitable for absorption bed facilities. ~~(3-31-22)~~( )

~~**c. Vehicular Traffic.** Rubber-tired vehicles must not be driven on the bottom surface of any bed excavation.~~ ~~(3-31-22)~~

~~**d**~~**c. ~~Distribution Lateral Spacing.~~** Distribution laterals within a bed ~~must be spaced on not~~ may not be spaced on greater than six (6) feet centers~~, nor may~~ and any sidewall may not be more than three (3) feet from a distribution lateral. ~~(3-31-22)~~( )

10. Vehicle and Machinery Traffic. Rubber-tired vehicles and machinery may not be driven on the bottom surface of any excavation or on the top of any drainfield. ( )

~~**11. Seepage Pit**. Seepage pit disposal facilities may be used on a case by case basis within the boundaries of District Health Department Seven when an applicant can demonstrate to the district director's satisfaction that the soils and depth to ground water are sufficient to prevent ground water contamination. The district director shall document all such cases.~~ ~~(3-31-22)~~

~~**a. General Requirements.** Except as specified in Subsection 008.11.b., rules and regulations applicable to a standard subsurface disposal system are applicable to a seepage pit.~~ ~~(3-31-22)~~

~~**b.** Other conditions for approval, sizing and construction will be as provided for in the seepage pit section of the Technical Guidance Manual for Individual and Subsurface Sewage Disposal, except that the site size restriction in condition two (2) of the Conditions for Approval will not apply.~~ ~~(3-31-22)~~

1~~2~~1. Failing Subsurface Sewage Disposal System. If the Director determines ~~that the public's health is at risk from a failed septic system~~ a system is failing and ~~that the~~ replacement of ~~a failing subsurface sewage disposal system~~ the system cannot meet the current rules ~~and regulations, then~~ the replacement system must meet the intent of the rules ~~and regulations~~ by ~~utilizing~~ using a ~~standard subsurface sewage disposal design or alternative~~ system design ~~as~~ specified by the Director. ~~(3-31-22)~~( )

009. OTHER COMPONENTS.

01. Design Approval Required. Commercially manufactured wastewater treatment components and systems must not be used in ~~the construction of~~ constructing a subsurface sewage system unless ~~their~~ the design is approved by the Director ~~through the recommendation of the TGC as directed in Section 004~~. The Department ~~has~~ developed recommended standards and guidance for these systems in the TGM. Approval may be limited to those locations or conditions ~~for which~~ where achievement of standards has been demonstrated. Commercially manufactured wastewater treatment components and systems may include but are not limited to: ~~(3-31-22)~~( )

a. ETPSs (e.g., aerobic treatment systems); (3-31-22)

~~b.~~ ~~Proprietary wastewater treatment systems (e.g., proprietary wastewater system technology with specified sand);~~ ~~(3-31-22)~~

~~c~~b. ~~Proprietary wastewater system technology (e.g., gravelless distribution products)~~PWTPs; and ~~(3-31-22)~~( )

~~d~~c. Proprietary non-discharging systems (e.g., individual wastewater incinerators, composting toilets, or vault toilets). (3-31-22)

02. Plan and Specification Submittal. Plans and specifications for all commercially manufactured wastewater treatment components and systems ~~will~~ must be submitted to the Director for approval. Plans and specifications ~~will~~ must include detailed construction drawings~~,~~; capacities~~,~~; structural calculations~~,~~; lists of materials~~,~~; ~~evidence of stability and durability,~~ performance standards~~,~~; manufacturers' installation, operation, and maintenance instructions~~,~~; ~~an~~ installation inspection checklist~~,~~; ~~a list of all prior approvals from other states including any review or compliance related issues,~~ and ~~any~~ other relevant information ~~as~~ requested by the Director. ~~(3-31-22)~~( )

a. Manufacturers seeking approval for ETPSs or PWTPs that reduce total suspended solids (TSS) and carbonaceous biological oxygen demand 5-day (CBOD5) when used with residential strength wastewater must submit NSF/ANSI 40 approvals, reports, and associated data or equivalent third-party standards. ( )

b. Manufacturers seeking approval for ETPSs or PWTPs that reduce total nitrogen (TN) must submit NSF/ANSI 245 approvals, reports, and associated data or equivalent third-party standards. ( )

03. ETPS~~s~~. ~~(3-31-22)~~( )

a. In addition to the items ~~listed~~ in Subsection 009.02, ETPS plan and specification submittals must include: ~~(3-31-22)~~( )

i. A plan for training and certifying system installers and service providers under Section 006; (3-31-22)

ii. ~~An operation and maintenance~~A manual ~~which contains~~ containing all operation and maintenance specified by the design engineer or manufacturer and the Department; and ~~(3-31-22)~~( )

iii. A quality assurance project plan ~~which documents~~ documenting how sampling will occur if ~~sampling is~~ required by the Director for product approval and continued monitoring. ~~(3-31-22)~~( )

~~b. Manufacturers seeking approval of these systems for reducing total suspended solids (TSS) and carbonaceous biological oxygen demand 5-day (CBOD5) when used with residential strength wastewater must submit NSF/ANSI 40: Residential Onsite Systems approvals, reports, and associated data or equivalent third-party standards.~~ ~~(3-31-22)~~

~~c. Manufacturers seeking approval for reduction of total nitrogen (TN) must submit NSF/ANSI 245: Nitrogen Reduction approvals, reports, and associated data or equivalent third-party standards.~~ ~~(3-31-22)~~

~~d~~b. Design and installation of these systems must meet the following: (3-31-22)

i. The effluent is discharged to a drainfield meeting the requirements of a standard drainfield as directed in Section 008 or a Director-approved alternative. (3-31-22)

~~ii. Separation between the bottom of the trench or bed to limiting layers protects ground water quality if the distance deviates from the table in Subsection 008.02.c.~~ ~~(3-31-22)~~

~~iii. The distribution laterals within the trench or bed meet the requirements of Section 008 or a Director-approved alternative.~~ ~~(3-31-22)~~

~~iv. Tank access lids are to grade or above with a sealed riser and fitted with a secured lid for monitoring and maintenance.~~ ~~(3-31-22)~~

~~v~~ii. If vertical separation distances are reduced from the distances defined in the table in Subsection 008.0~~2~~1.c., the reduced separation must protect groundwater quality and a sampling port ~~has to~~ must be installed to provide ~~a~~ access to representative sample~~s~~ of the effluent from the system. ~~(3-31-22)~~( )

~~e~~c. Within thirty (30) days of completing installation of an ETPS, the property owner ~~shall~~ must provide certification to the health district from a representative approved by the manufacturer that the system has been installed and will operate in accordance with the manufacturer's recommendations. The health district ~~shall~~ must not finalize the ~~subsurface sewage disposal~~ installation permit until the certification of proper installation and operation is received and includes information on the manufacturer, product, model number, and serial number of the ETPS installed. ~~(3-31-22)~~( )

~~f~~d. Property owners with an ETPS installed on their property must have all operation, maintenance, and monitoring requirements specified in the permit completed by June 30~~th~~ of each year by a certified service provider in accordance with Section 006, including effluent monitoring if required by the permit. The certified service provider who completed operation, maintenance, and monitoring for the system as specified in the TGM must submit an annual report to the Director by July 31~~st~~ of each calendar year demonstrating ~~that~~ the system is working as designed. ~~(3-31-22)~~( )

~~g~~e. Permit requirements for ETPSs transfer with ownership changes. Before transferring ownership of a property with an ETPS, the system owner must notify all transferees of the ETPS operation, maintenance, and monitoring requirements. ~~Within thirty (30) days of transferring ownership of a property with an ETPS, the transferee must notify the health district of the new owner of the property.~~ ~~(3-31-22)~~( )

04. ~~Proprietary Wastewater Treatment Systems~~PWTPs. ~~(3-31-22)~~( )

~~**a.** Manufacturers seeking approval for these systems for reducing total suspended solids (TSS) and carbonaceous biological oxygen demand 5-day (CBOD5) when used with residential strength wastewater must submit NSF/ANSI 40: Residential Onsite Systems approvals, reports, and associated data or equivalent third party standards.~~ ~~(3-31-22)~~

~~**b.** Manufacturers seeking approval for reduction of total nitrogen (TN) must submit NSF/ANSI 245: Nitrogen Reduction approvals, reports, and associated data or equivalent third-party standards.~~ ~~(3-31-22)~~

~~e~~a. ~~Proprietary wastewater s~~System media ~~utilized~~ used with a ~~proprietary wastewater treatment system~~ PWTP must: ~~(3-31-22)~~( )

i. Be constructed or manufactured from materials that are non-decaying and non-deteriorating and do not leach unacceptable chemicals when exposed to sewage and the subsurface soil environment; (3-31-22)

ii. Support the distribution pipe and provide suitable effluent distribution and infiltration rate to the absorption area at the soil interface; and (3-31-22)

iii. Maintain the integrity of the trench or bed. The material used, by its nature and manufacturer-prescribed installation procedure, ~~needs to~~ must withstand the physical forces of the soil sidewalls, soil backfill, and weight of equipment used in the backfilling. ~~(3-31-22)~~( )

~~d~~b. ~~Design and installation of these systems must meet the following:~~ ~~(3-31-22)~~

~~i. The effluent is discharged to a drainfield that meets the required effective soil depth for standard drainfields as directed in Section 008.~~ ~~(3-31-22)~~

~~ii. Separation between the bottom of the manufactured medium sand component of the proprietary wastewater treatment system to limiting layers protects ground water quality if the distance deviates from the table in~~

~~Subsection 008.02.c.~~ ~~(3-31-22)~~

~~iii. The distribution laterals within the trench or bed meet the requirements of Section 008 or a Director-approved alternative.~~ ~~(3-31-22)~~

~~iv.~~ Drainfield~~s~~ size~~d~~ is based on the requirements of a standard drainfield or the manufacturer's recommended minimum sizing requirement~~ or the maximum daily flow of effluent divided by the hydraulic application rate for the applicable soil design subgroup, whichever is greater.~~; and ~~(3-31-22)~~( )

~~v. Pressure distribution, when used with a proprietary wastewater treatment product, is designed by an Idaho licensed professional engineer.~~ ~~(3-31-22)~~

~~e~~**c.** ~~A proprietary wastewater treatment system~~A system using a PWTP may be required to follow the same operation, maintenance, monitoring, and reporting requirements described in Subsection 009.03.~~f~~d. due to ~~factors such as~~ product complexity and~~/or~~ site-specific constituent reduction requirements. ~~(3-31-22)~~( )

~~f~~**d.** Permit requirements for these systems transfer with ownership changes. Before transferring ownership of a property with this system, the system owner must notify all transferees of the system operation, maintenance, and monitoring requirements.~~ Within thirty (30) days of transferring ownership of a property with the system, the transferee must notify the health district of the new owner of the property.~~ ~~(3-31-22)~~( )

05. ~~**Effect of**~~ **Design Approval** **Effect**. The Director may condition a design approval by specifying circumstances under which the component must be installed, used, operated, maintained, or monitored. ~~(3-31-22)~~( )

a. The Director~~ shall~~ will specify the complex alternative systems that must undergo professionally managed operation, maintenance, service, or effluent testing. ~~(3-31-22)~~( )

b. Manufacturers~~ shall~~ will provide training to a reasonable number of service providers to perform required operation, maintenance, or monitoring as specified by the Director. ~~(3-31-22)~~( )

c. Manufacturers may enter into agreements with certified service providers trained in their technology but~~ shall~~ must not limit~~ the~~ service providers from~~ being trained~~ training in the technology of other manufacturers. ~~(3-31-22)~~( )

06. ~~**Notice of**~~ **Design Disapproval** **Notice**. If the Director~~ is satisfied that~~ determines the component described in the submittal~~ may not be in compliance~~ does not comply with or may not consistently function in compliance with these rules, or~~ that~~ the manufacturer of the proposed system failed to comply with Subsection 009.03, the Director will disapprove the design as submitted~~. The~~ and notify the manufacturer or distributor submitting the design~~ for approval will be notified~~, in writing, of the disapproval and the reason for that action. ~~(3-31-22)~~( )

~~**07. Amendments or Revocations**. The Director may amend or revoke any permit or system approved by the Department if:~~ ~~(3-31-22)~~

~~**a.** Approval was based on false or misleading information;~~ ~~(3-31-22)~~

~~**b.** The material, technology, or design no longer achieves performance standards for which it was approved or does not meet the intent of the rules; or~~ ~~(3-31-22)~~

~~**c.** The manufacturer is not meeting the requirements of these rules or conditions of the approval.~~ ~~(3-31-22)~~

010. VARIANCES.

01. Technical Allowance. The Director may make a minor technical allowance to the dimensional or construction requirements~~ of these rules~~ for a standard system if the allowance: ~~(3-31-22)~~( )

a. ~~The allowance will~~Does not affect adjacent property owners or the public at large; ~~(3-31-22)~~( )

b. ~~The allowance will~~Does not violate the ~~conditions of Subsection 004.01; and~~ intent of the rules. ~~(3-31-22)~~( )

c. ~~The allowance will~~Does not ~~be in~~ conflict with any other rule, regulation, standard, or ordinance~~.~~; and ~~(3-31-22)~~( )

d. ~~The allowance to~~Changes a dimensional requirement is not more than ten percent (10%) ~~of the requirements of these rules~~ unless otherwise provided for in the ~~Technical Guidance Manual~~ TGM. ~~(3-31-22)~~( )

02. Variance Petition ~~for Variance~~. ~~If a petition of variance to these rules is desired, a request for a variance may be filed with the Director. The petition shall contain the following~~ A petition for rule variance must be filed with the Director and include the following detailed statements describing: ~~(3-31-22)~~( )

a. ~~A concise statement of t~~The facts upon which the variance is requested including a description of the intended use of the property, the estimates of the quantity of blackwaste or wastewater to be discharged, and a description of the existing site conditions; ~~(3-31-22)~~( )

b. ~~A concise statement of why the~~The reason petitioner believes that compliance with the provision from which variance is sought would impose an arbitrary or unreasonable hardship, and a list of the injury ~~that~~ the ~~grant of the~~ variance would impose on the public; and ~~(3-31-22)~~( )

c. ~~A clear statement of t~~The precise extent of the relief sought. ~~(3-31-22)~~( )

03. Public Notice. ~~At the time of~~ When filing a petition, evidence ~~shall~~ must also be submitted ~~that showing~~: ~~(3-31-22)~~( )

~~**a.** A notice has appeared in the local newspaper advising the public of the request for variance; (3-31-22)~~

~~**b.** A~~ all property owners within three hundred (300) feet of the affected site ~~have been~~ were notified fifteen (15) days before filing the petition~~; and~~ ~~(3-31-22)~~( )

~~**c.** Such notices to the public have been made fifteen (15) days prior to the filing of the petition. (3-31-22)~~

04. ~~Objections to~~ Petition Objections. Any person may file with the Department, within twenty-one (21) days after the filing ~~of~~ the petition, a written objection to the grant of the variance. A copy of ~~such~~ the objection ~~shall~~ must be provided by the Department to the petitioner. ~~(3-31-22)~~( )

05. Investigation and Decision. After investigating the variance petition and considering the views of persons who might be adversely affected by the grant of the variance, the Director ~~shall~~ will, within sixty (60) days after the filing of the petition, make a decision ~~as to the disposition of~~ regarding the petition. ~~The decision, a copy of which shall be served on the petitioner, shall include~~ The Department will provide the decision to the petitioner, including: ~~(3-31-22)~~( )

a. A description of the efforts made by the Director to investigate the facts as alleged and to ~~ascertain~~ obtain and summarize the views of persons who might be affected~~, and a summary of the views so ascertained~~; ~~(3-31-22)~~( )

b. A statement of the degree to which, if at all, the Director disagrees with the facts as alleged in the petition; and ~~(3-31-22)~~( )

c. Allegations of any other facts believed relevant to the disposition of the petition~~; and~~. ~~(3-31-22)~~( )

~~**d.** The Director's decision.~~ ~~(3-31-22)~~

06. Limitations on Decision. No technical allowance or variance ~~shall~~ will be granted unless: ~~(3-31-22)~~( )

a. Adequate proof is shown by the petitioner that compliance would impose an arbitrary or unreasonable hardship; (3-31-22)

b. The technical allowance or variance rendered is consistent with the recommendations of the ~~Technical Guidance Committee~~ TGC or ~~the Technical Guidance Manual~~ TGM in use at the time of the petition; and ~~(3-31-22)~~( )

c. The Director has determined that the approval of the technical allowance or variance will not ~~have an adverse impact on the public health or the environment~~ violate the intent of the rules. ~~(3-31-22)~~( )

011. INSPECTIONS.

01. One or More Inspections ~~Required~~. ~~Such~~ The Director will require inspections ~~as are~~ necessary to determine compliance with any ~~requirement or~~ provision of these rules ~~shall be required by the Director~~. ~~(3-31-22)~~( )

02. Duty to Uncover. The permittee ~~shall~~ must, at the request of the Director, uncover or make available for inspection any portion or component of ~~an individual or subsurface sewage disposal system which was~~ a system under construction or covered or concealed in violation of these rules. ~~(3-31-22)~~( )

03. Advance Notice by Permittee. If an inspection requires ~~some type of~~ preparation, such as test hole excavation or partial construction of the system, the applicant or permittee ~~will~~ must notify the Director at least forty-eight (48) hours in advance, excluding weekends and holidays~~, before the time preparation will be completed~~. ~~(3-31-22)~~( )

04. Substantiating Receipts and Delivery Slips. ~~The permittee shall u~~ Upon ~~request by~~ the Director's request, the permittee must provide copies of receipts, delivery slips, or other similar documents to substantiate the origin, quality, or quantity of materials used in ~~the construction of any individual or subsurface system~~ constructing any system. ~~(3-31-22)~~( )

05. Finalizing a Permit. No system may receive wastewater until the Director conducts a final installation inspection and completes as-built drawings and specifications depicting the actual installation. The Director will provide a copy of the final as-built drawing to the owner within thirty (30) days after completing the final inspection. ( )

012. VIOLATIONS AND PENALTIES.

01. Failure to Comply. All individual and subsurface sewage disposal systems ~~shall~~ must be constructed and installed according to these rules. Failure by any person to comply with the permitting, licensing, approval, installation, or variance provisions of these rules ~~shall be deemed~~ is a violation of these rules. ~~(3-31-22)~~( )

02. System Operation. No person ~~shall~~ may discharge pollutants into the ~~underground water of the state of Idaho~~ waters through an individual or subsurface sewage disposal system unless in accordance with the provisions of these rules. ~~(3-31-22)~~( )

~~**03. Violation a Misdemeanor**. Pursuant to Section 39-117, Idaho Code, any person who willfully or negligently violates any of the provisions of these rules shall be guilty of a misdemeanor.~~ ~~(3-31-22)~~

03. Amendments or Revocations. At any time, the Director may amend or revoke any installation or registration permit or the approval of any system component approved by the Department if: ( )

a. Approval was based on false or misleading information; ( )

b. The material, technology, or system no longer achieves performance standards for which it was approved, does not meet the conditions of approval, or does not meet the intent of the rules; or ( )

c. The permitted installer, service provider, or pumper is not in compliance with or has violated the provisions of these rules ( )

04. Notice. Except in emergencies, the Department will issue a written notice of intent to revoke to the permittee before final revocation. Revocation becomes final within thirty-five (35) days of the permittee receiving notice unless, within that time, the permittee requests an administrative hearing in writing. The hearing is conducted according to IDAPA 58.01.23, Contested Case Rules and Rules for Protection and Disclosure of Records. ( )

013. ~~LARGE SOIL ABSORPTION SYSTEM DESIGN AND CONSTRUCTION~~LSAS.

01. Site Investigation. A site investigation~~ for a large soil absorption system~~ conducted by a soil scientist ~~and/~~or hydrogeologist~~ may be required by the Director for review and approval and shall be coordinated with the Director. Soil and site investigations shall conclude that the effluent will not adversely impact or harm the waters of the State~~ determining whether the LSAS effluent will adversely impact the waters must be submitted to the Director for review and approval. ~~(3-31-22)~~( )

02. Installation Permit Plans. Installation permit application plans~~, as outlined in Subsection 005.04,~~ for an~~ large soil absorption system~~ LSAS submitted for approval~~ shall~~ must include provisions for inspections~~ by the design engineer, designee, or Director~~ of the work during construction~~ by the design engineer or his designee and/or by the Director~~. ~~(3-31-22)~~( )

03. Module Size. The maximum size of any subsurface sewage disposal module~~ shall~~ must be ten thousand (10,000) gallons per day. Developments with greater than ten thousand (10,000) gallons per day flow~~ shall~~ must divide the system into absorption modules designed for ten thousand (10,000) gallons per day or less. ~~(3-31-22)~~( )

04. Standard~~ Large Soil Absorption System~~ LSAS Design Specifications. ~~(3-31-22)~~( )

a. All design elements and application~~s~~ rates~~ shall be arrived at by~~ must be developed using sound engineering practice and~~ shall be~~ provided by a professional engineer licensed by the state of Idaho~~ and specializing in environmental or sanitary engineering~~. ~~(3-31-22)~~( )

b. All design and installation requirements for standard systems apply to LSASs unless otherwise specified in this section. ( )

~~b~~c. Within thirty (30) days of completing system installation~~ completion,~~ the design engineer~~ shall~~ must provide either as-built plans or a certificate that the system~~ has been~~ was installed in substantial compliance with the installation permit application plans. ~~(3-31-22)~~( )

~~c~~d. ~~Effective Soil Depths.~~ Effective soil depths, in feet, below the bottom of the absorption module to the site conditions must be equal to or greater than the following table:

~~TABLE~~ EFFECTIVE SOIL DEPTHS			
~~Site Conditions~~Limiting Layer	Design	Soil	Group
~~Limiting Layer~~	A	B	C
Impermeable Layer	8	8	8

~~TABLE~~ EFFECTIVE SOIL DEPTHS			
~~Site Conditions~~Limiting Layer	Design	Soil	Group
Fractured Bedrock~~, Fissured Bedrock~~ or Extremely Permeable Material	12	8	6
Normal High Groundwater Level	12	8	6
Seasonal High Groundwater Level	2	2	2

~~(3-31-22)~~( )

~~d~~c. ~~Separation Distances.~~ The disposal area absorption module must be located so ~~that~~ the ~~following~~ separation distances ~~given~~ provided in the following table, in feet, are maintained or exceeded ~~as outlined in the following table~~:

TABLE -- SEPARATION DISTANCES			
Feature of Interest	Design	Soil	Group
	A	B	C
All Domestic Water Supplies			
Sewage Volume - 2,500-5,000 GPD	250	200	150
Sewage Volume - 5,000-10,000 GPD	300	250	200
Property Lines			
Sewage Volume - 2,500-5,000 GPD	50	50	50
Sewage Volume - 5,000-10,000 GPD	75	75	75
Building Foundations - Basements			
Sewage Volume - 2,500-5,000 GPD	50	50	50
Sewage Volume - 5,000-10,000 GPD	75	75	75
Downslope Cut or Scarp			
Impermeable Layer - Below Base	100	50	50
Separation Distance - Between Modules	12	12	12

~~(3-31-22)~~( )

~~e~~f. ~~No large soil absorption system shall~~No LSAS may be installed above a downslope scarp or cut ~~unless it can be demonstrated that the installation will not result in effluent surfacing at the cut or scarp~~ unless approved by the Director. ~~(3-31-22)~~( )

~~f~~g. A minimum of two (2) disposal systems ~~will~~ must be installed, each sized to accept the daily design flow, and a replacement area equal to the size of one (1) disposal system ~~will~~ must be reserved. ~~(3-31-22)~~( )

~~g~~h. The vertical and horizontal hydraulic limits of the receiving soils ~~shall~~ must be established and flows ~~shall~~ must not exceed such limits ~~so as~~ to avoid hydraulically overloading any absorption module and replacement area. ~~(3-31-22)~~( )

~~h~~i. The distribution system must be pressurized with a duplex dosing system. (3-31-22)

~~i. A geotextile filter fabric shall cover the aggregate.~~ ~~(3-31-22)~~

j. An in-line effluent filter between an extended treatment system or lagoon system and the large soil absorption area ~~shall~~ must be installed. ~~(3-31-22)~~( )

k. Observation pipes ~~shall~~ must be installed to the bottom of the ~~drainrock~~ aggregate throughout the drainfield. ~~(3-31-22)~~( )

~~l. Pneumatic tired machinery travel over the excavated infiltrative surface is prohibited.~~ ~~(3-31-22)~~

~~m~~**l.** The drainfield disposal area ~~shall~~ must be constructed to allow for surface drainage and to prevent ~~ponding of surface water~~ erosion. ~~Before the system is put into operation the absorption module disposal area shall be seeded with typical lawn grasses and/or other appropriate shallow rooted vegetation.~~ ~~(3-31-22)~~( )

~~**05. Large Septic Tanks.** Large Septic Tanks shall be constructed according to Section 007, except as outlined in this Subsection:~~ ~~(3-31-22)~~

~~a. Length to width ratios shall be maintained at least at a three to one (3:1) ratio.~~ ~~(3-31-22)~~

~~b. Tank inlet shall allow for even distribution of the influent across the width of the tank.~~ ~~(3-31-22)~~

~~c. The width to liquid depth ratio shall be between one to one (1:1) and two and one-quarter to one (2.25:1).~~ ~~(3-31-22)~~

0~~6~~5. **Monitoring and Reporting**. Before an installation permit is issued, the Director will approve a monitoring and reporting plan ~~shall be approved by the Director and shall~~ that contains the following minimum criteria~~:~~. ~~(3-31-22)~~( )

a. Monthly recording and inspection for ponding in all observation pipes. (3-31-22)

b. Monthly recording of influent flows based on lapse time meter ~~and/~~or event meter of the dosing system. ~~(3-31-22)~~( )

c. Monthly recording of groundwater elevation measurements at all monitoring wells if high seasonal groundwater is within fifteen (15) feet of the ground surface. (3-31-22)

d. Semi-annual groundwater monitoring at all monitoring wells. (3-31-22)

~~e. Monitoring shall conform to the requirements of all federal, state, and local rules and regulations.~~ ~~(3-31-22)~~

~~f~~**e.** An annual "~~Large Soil Absorption System Report~~LSAS" ~~shall~~ including operation, maintenance, and monthly and annual monitoring data, must be filed with the Director no later than January 31 of each year for the last twelve (12) month period ~~and shall include section on operation, maintenance and monthly and annual monitoring data~~. ~~(3-31-22)~~( )

0~~7~~6. **Operation and Maintenance**. Before an installation permit is issued, an operation and maintenance plan ~~shall~~ must be approved by the Director and ~~shall~~ contain the following minimum criteria: ~~(3-31-22)~~( )

a. Annual or more frequent rotation of the disposal systems, and whenever ponding is noted. (3-31-22)

b. A detailed operation and maintenance manual, fully describing and locating all elements of the system and outlining maintenance procedures needed for operation of the system and who ~~will be~~ is responsible for system maintenance, ~~shall~~ must be submitted to the Director ~~prior to~~ before system use. ~~(3-31-22)~~( )

c. A maintenance entity ~~shall~~ must be specified to provide continued operation and maintenance~~.~~ ~~Approval of the entity shall be made by the Director prior to issuance of an installation permit~~ according to the operator requirements in IDAPA 58.01.16, Wastewater Rules, and approved by the Director before issuance of an installation permit. The entity may assume the responsibilities of a service provider if a service provider is required. ~~(3-31-22)~~( )

014. -- 049. (RESERVED)

050. ~~CLEANING OF~~ SEPTIC TANK~~S -- GENERAL REQUIREMENTS~~ CLEANING.
All persons, firms, or corporations operating any tank truck or any other device or equipment used or intended ~~to be used for the purpose of~~ for pumping or cleaning septic tanks and~~/or~~ transporting or disposing of human excrement, ~~shall~~ must conform with the following ~~requirements~~ provisions. ~~(3-31-22)~~( )

01. Watertight Equipment ~~to Be Watertight~~. The tank or transporting equipment ~~shall~~ must be watertight and ~~so~~ constructed ~~as~~ to prevent spilling or leaking while being loaded, transported, ~~and/~~ or unloaded. ~~(3-31-22)~~( )

02. Cleanable Equipment ~~to Be Cleanable~~. The tank or transporting equipment ~~shall~~ must be constructed ~~in such a manner~~ so that every portion of the interior and exterior can be easily cleaned and maintained in a clean condition at all times while not in ~~actual~~ use. ~~(3-31-22)~~( )

03. Disposal Methods. Disposal of ~~excrement~~ septage from septic tanks ~~shall be by~~ must apply the following methods ~~only~~: ~~(3-31-22)~~( )

a. ~~Discharging~~Discharge to a public sewer; ~~(3-31-22)~~( )

b. ~~Discharging~~Discharge to a sewage treatment plant; and ~~(3-31-22)~~( )

~~**c.** Burying under earth in a location and by a method approved by the Department of Environmental Quality.~~ ~~(3-31-22)~~

~~**d**~~**c.** ~~Drying i~~In a location and by a method approved by the Department ~~of Environmental Quality~~. ~~(3-31-22)~~( )

~~**051. CLEANING OF SEPTIC TANKS -- PERMIT REQUIREMENTS.**~~

04. Permit Application Contents. ( )

a. All persons operating septic tank pumping equipment ~~shall~~ must: ( )

i. ~~o~~Obtain a permit from the ~~Idaho Department of Environmental Quality for the operation of~~ Director to operate such equipment~~.~~; ( )

ii. ~~Permits shall be renewed~~Renew permit annually~~.~~; and ( )

iii. ~~Applications~~Apply for permit renewal ~~of permits shall be made on or~~ before March 1 of each year. ~~(3-31-22)~~( )

~~**01. Permit Application Contents.** Applications for permits shall submit the following information on forms prepared by the Department:~~ ~~(3-31-22)~~

b. The application must be submitted on forms approved by the Director and include: ( )

~~**a**~~i. Number of tank trucks operated by owner; (3-31-22)

~~**b**~~ii. Vehicle license number of each tank truck; (3-31-22)

~~e~~iii. Name and address of owner ~~and/~~or operator of equipment; ~~(3-31-22)~~( )

~~d~~iv. Name and address of business, if different from Subsection 051.01.c.; (3-31-22)

~~e~~v. Methods of disposal to be used in all areas of operation; (3-31-22)

~~f~~vi. Location of all disposal sites used by applicant; and ~~(3-31-22)~~( )

~~g~~vii. ~~A c~~Complete basis of charges made for payment of the work performed. ~~(3-31-22)~~( )

0~~2~~5. **Permit Fee**. All applications ~~shall~~ must be accompanied by payment of the fee specified in ~~Idaho Department of Environmental Quality Rules,~~ IDAPA 58.01.14, ~~Section 115,~~ "Rules Governing Fees for Environmental Operating Permits, Licenses, and Inspection Services." ~~(3-31-22)~~( )

0~~3~~6. **Vehicle Number ~~to Be~~ Displayed**. For each permit issued, a number ~~will be~~ is assigned to the owner ~~and/~~or operator of the tank truck or trucks. ~~The assigned number shall~~ that must be displayed at all times on the door of the vehicle or vehicles in a legible manner ~~easily legible~~. ~~(3-31-22)~~( )

~~04. Permit Suspension or Revocation. Permits issued are the property of the Department of Environmental Quality and may be suspended or revoked at any time the operator is not in compliance with the requirements of these rules. (3-31-22)~~

052. -- 995. (RESERVED)

996. ADMINISTRATIVE PROVISIONS.
Persons may be entitled to appeal agency actions authorized under these rules pursuant to IDAPA 58.01.23, "Contested Case Rules and Rules for Protection and Disclosure of Records". (3-31-22)

~~997. CONFIDENTIALITY OF RECORDS.~~
~~Information obtained by the Department under these rules is subject to public disclosure pursuant to the provisions of Title 74, Chapter 1, Idaho Code, and IDAPA 58.01.21, "Rules Governing the Protection and Disclosure of Records in the Possession of the Department of Environmental Quality." (3-31-22)~~

99~~8~~7. -- 999. (RESERVED)