SOUTHERN NEVADA HEALTH DISTRICT

2025 ~~REGULATIONS GOVERNING~~ INDIVIDUAL SEWAGE DISPOSAL SYSTEMS AND LIQUID WASTE MANAGEMENT REGULATIONS

WHEREAS, the Southern Nevada Health District ~~(SNHD) has been established by the County of Clark and the cities of Las Vegas, North Las Vegas, Henderson, Mesquite, and Boulder City as the~~ is a public health authority ~~for those entities, and~~organized pursuant to Nevada Revised Statutes (NRS) Chapter 439~~; has~~ with jurisdiction over all public health matters ~~in the health district~~within Clark County, Nevada;

WHEREAS, the Southern Nevada District Board of Health (Board) is the Southern Nevada Health District's governing body ~~of the SNHD,~~ and is authorized to adopt regulations ~~to regulate sewage disposal and liquid waste management in the interest of the public health, and~~ to protect and promote the public health and safety in the geographical area subject to ~~the~~ its jurisdiction ~~of the health district~~, and is specifically authorized to adopt regulations to control the use of residential individual sewage disposal systems within its jurisdiction pursuant to NRS 444.650;

~~WHEREAS, the Board finds that individual sewage disposal systems and liquid waste management impacts the public health, and finds that it is necessary to adopt Southern Nevada Health District Regulations Governing Individual Sewage Disposal Systems and Liquid Waste Management to regulate the construction, operation and servicing of septic tanks and soil absorption systems, or other sewage treatment systems, and liquid waste management; and~~

WHEREAS, in accordance with the authority granted pursuant to NRS Chapter 439 and NRS 444.650, the Board hereby adopts regulations to establish uniform, minimum standards to regulate the planning, design, construction, operation, and maintenance of individual sewage disposal systems, other sewage treatment systems, and liquid waste management in Clark County, Nevada; and

WHEREAS, the Board ~~finds that~~ deems the following ~~Regulations~~ regulations are ~~designed~~ necessary to protect and promote the public health and safety, it does therefore publish, promulgate, and order compliance within Clark County, Nevada with the substantive and procedural requirements hereinafter set forth.

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~~**INTENT AND SCOPE**~~

~~**Intent** The purpose of these Regulations is to protect and promote the public health, safety, and environment through preventative measures and timely correction of public health and environmental issues relating to individual sewage disposal systems and liquid waste management.~~

~~**Scope** These Regulations establish definitions; set standards for the location, design, construction, operation, and maintenance of individual sewage disposal systems; provide for the issuance, modification and revocation of permits.~~

~~These Regulations also set standards for liquid waste management, the operation and permitting of liquid waste haulers; provide for the issuance, modification, suspension and revocation of liquid waste hauler permits.~~

Chapter 1 - General Provisions

1-1 Scope

These Regulations establish definitions; set standards for the location, design, construction, installation, operation, and maintenance of INDIVIDUAL SEWAGE DISPOSAL SYSTEMS (ISDS); set standards for liquid waste management and the operation of LIQUID WASTE HAULERS; and provide for the issuance, modification, transfer, and revocation of ISDS and LIQUID WASTE HAULER permits.

1-2 Responsibilities

(A) Every owner of real property is responsible for:
  (1) Storing, treating, and disposing of wastewater generated on that property;
  (2) Connecting all plumbing fixtures on that property that discharge wastewater to a treatment system approved by the HEALTH AUTHORITY in accordance with these Regulations, to a treatment system approved by the Nevada Division of Environmental Protection (NDEP), or to a COMMUNITY SEWERAGE SYSTEM;
  (3) Obtaining necessary permits and approvals for installation, repair, alteration, and operation of an ISDS; and
  (4) Decommissioning an unused ISDS in accordance with these Regulations.

(B) The issuance of permits or inspection reports by the HEALTH AUTHORITY is not a guarantee or warranty of the operation or effectiveness of an ISDS.

~~PREFACE~~

~~A properly planned, maintained, and installed individual sewage disposal system will:~~

1) ~~Promote the health and welfare of citizens of this Health District by preventing the pollution of ground and surface water.~~

2) ~~Prevent nuisances;~~

3) ~~Eliminate hazards to the public health by minimizing pollution of water supplies and hazards to recreational areas; and~~

4) ~~Minimize disease transmission potential.~~

~~It is the policy of the Southern Nevada Health District, therefore, to eliminate and prevent public health and safety hazards by regulating proper planning, design, construction, operation and maintenance of individual sewage disposal systems. This will be achieved through plan review, the issuance of permits and field surveillance.~~

~~The most satisfactory method of sewage disposal is by connection to a public sewer system. Where such systems exist, every effort should be made to secure sewer extensions. When connection to a public sewerage is not feasible, particularly where a large number of residences are to be served, consideration should be given to the construction of a community sewerage system and treatment plant. Specific information on this matter may be obtained from the Southern Nevada Health District.~~

~~The Southern Nevada District Board of Health having considered and taken into account the geological, hydrological, and topographical characteristics within the area of its jurisdiction, adopts the following Regulations Governing Individual Sewage Disposal Systems and Liquid Waste Management and orders compliance with the terms and provisions thereof which shall become effective upon the date of passage and approval of the Southern Nevada District Board of Health pursuant to its statutory authority as set forth in **Nevada Revised Statute (NRS) 444.650.**~~

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~~Section 18 SOLID AND LIQUID WASTES: GENERATED FROM SEPTIC TANK, HOLDING TANK, CHEMICAL TOILET WASTE, OR GREASE INTERCEPTOR TANK OR INEDIBLE KITCHEN GREASE CONTAINERS, AND PUMPING AND HAULING CONTRACTORS (INCLUDING PETROLEUM HYDROCARBON CONTAMINATED WASTE WHICH MAY BE GENERATED BY SAND-OIL-WATER SEPARATORS)~~

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Section 1
GENERAL PROVISIONS

Summary of acronyms and abbreviations of terms used in these Regulations

Board	**Southern Nevada District Board of Health**
EPA	**United States Environmental Protection Agency**
NRS	**Nevada Revised Statutes**
RCRA	**Resource Conservation and Recovery Act**
mg/L	**Milligrams per Liter**
mL	**Milliliters**
SNHD	**Southern Nevada Health District**
NDEP	**Nevada Division of Environmental Protection**

Definitions. As used in these Regulations, unless the context otherwise requires, the following words and terms defined have the meanings ascribed to them in this document as they pertain to individual sewage disposal systems (ISDS).

1-3 Definitions

The following definitions will apply in the interpretation and application of these Regulations:

1.1 **"Absorption trench" defined.** A system of soil absorption using a trench not over thirty- six inches (36") in width with a minimum of eighteen inches (18") of clean, coarse aggregate under a distribution pipe and covered with a minimum of twelve inches (12") of earth cover, that utilizes the soil for subsequent absorption and treatment of septic tank effluent. The maximum length of perforated pipe shall be one hundred feet (100') per trench

1.2 **"Additive" defined**. Also referred to as septic additive, septic chemical, septic treatment, septic tank additive: A septic additive is a chemical, bacteria, or other product sold to be placed into a septic tank or septic absorption system, purportedly to improve the function of the system, improve leach field performance, avoid septic tank pumping, or other repair or maintenance need. The use of additives in septic systems in Clark County is not recommended.

1.3 **"Aeration risers" defined**.

- With a Pipe and Gravel Leach Field:
  Pipes extending from the end of perforated pipes vertically with a solid 90 degree bend and a solid pipe to perforated pipes within 12" of the surface encased in a 24" x 24" x 24" cube with ½" to 2 ½" gravel.

- With a Chamber Leach Field:
  Pipes extending from the top of chambers vertically with solid 90 degree bend and a solid pipe to perforated pipes within 12" of the surface encased in a 24" x 24" x 24" cube with ½" to 2 ½" gravel.

~~1.4 **"Acre site" defined**. This consists of 43,560 square feet of land and includes any public streets, alleys, rights-of-way, and easements.~~

~~1.5 **"Aerobic bacteria" defined**. Bacteria that require free dissolved oxygen for growth.~~

~~1.6 **"Aerobic wastewater treatment system unit" defined.** This is a chamber that receives sewage and through oxidation, decomposes the sewage by the mechanical (pump) introduction of air into the wastewater to reduce both the level of total suspended solids and the level of biological oxygen demand to thirty (30) milligrams or less per liter.~~

~~1.7 **"Anaerobic bacteria" defined**. Bacteria that grow only in the absence of free dissolved oxygen. Bacteria that obtain oxygen from breaking down complex organic substances.~~

~~1.8 **"Alternative absorption system" defined.** This is a system other than an absorption trench that uses the native soil for the subsequent absorption and treatment of effluent from a primary treatment unit. The term includes, without limitation, a capping fill trench, composting toilet, constructed wetlands, stepped absorption system utilizing relief lines, subsurface drip disposal system, sand filter and elevated mound system, and any other system not addressed in these Regulations.~~

~~1.9~~ **ALTERNATIVE TREATMENT SYSTEM** ~~**"Alternative treatment system" defined.** A~~ means a system or a receptacle other than a septic tank that is designed and constructed to receive the discharge of SEWAGE from a building sewer~~,~~; partially or completely treat such SEWAGE~~,~~; and discharge EFFLUENT for final disposal.

~~1.10 **"Approved water source" defined**. An individual sewage disposal system permit or tenant improvement approval cannot be issued without a guarantee of potable water from a municipal source or a well in good standing with the Nevada Division of Water Resources.~~

~~1.11 **"Backwash" defined.** This is normally highly concentrated wastewater generated from the cleaning of water and wastewater treatment filters. Backwash from pools and water softeners into the septic system is prohibited.~~

~~1.12 **"Bedrock" defined**. Bedrock is defined as materials which generally cannot be excavated with normal power-excavating equipment. In the case of badly creviced sandstone or granite, andesite, etc., and for limestone or shale, bedrock is considered to be present when fifty percent (50%) of the material has rock-like characteristics even though it can be excavated. Cemented soils, sometimes termed as caliche, occurring in layers and lenses with soil found below the cemented deposit shall not be defined as bedrock.~~

AS-BUILT means a drawing documenting the final location, size, and type of all major ISDS components.

~~1.13 **"Biochemical Oxygen Demand (BOD)" defined.** This is the difference between the initial dissolved oxygen in a sample and the dissolved oxygen in a duplicate sample after a stated period of time, usually over a period of five (5) days.~~

~~1.14 **"Biomat" defined.** A biological layer formed by anaerobic bacteria. They secrete a gluey~~

~~substance to anchor themselves to the soil or rock particles.~~

~~1.15 **"Block wall" defined.** A free standing wall constructed with concrete masonry unit (CMU) block and a concrete foundation.~~

~~1.16 **"Cease and desist order" defined.** A **Cease and Desist Order** is a written Order issued by the Health Authority which directs the responsible person to stop causing or allowing a violation of these or any applicable Regulations on a property. As specified in the **Cease and Desist Order,** a timeframe to achieve compliance with the Order may be included.~~

~~1.17 **"Caliche" defined.** This is a hardened deposit of calcium carbonate. This calcium carbonate cements together other materials, including gravel, sand, clay, and silt.~~

~~1.18 **"Capacity of septic system" defined.** This is the maximum volume of wastewater a septic system is designed to be capable of handling.~~

~~1.19 **"Chamber leach field" defined.** A chamber leach field is an absorption field consisting of leaching chambers. A leaching chamber is a wastewater treatment system consisting of beds, together with one or more distribution pipes or open-bottomed plastic chambers, installed in appropriate soils. These chambers receive wastewater flow from a septic tank or other treatment device and transmit it into soil for final treatment and disposal.~~

~~1.20~~ **COMMERCIAL FACILITY** ~~**"Commercial facility" defined.** Any structure or building(s), mobile home parks or any portion thereof, other than a residential single family dwelling or residential accessory structure, as defined by the Building Department.~~ has the meaning ascribed to it in NAC 445A.9522.

~~1.21 **"Commercial holding tank" defined.** This is a non-residential, above ground holding tank for the containment of wastewater on a temporary basis and must be pumped periodically.~~

~~1.22~~ **COMMUNITY SEWERAGE SYSTEM** ~~**"Community sewerage system" defined.**~~ means a~~Any~~ system owned ~~and~~ or operated, or both, by a public entity such as a general improvement district~~s~~, sanitation district~~s~~, city, county, or state government~~s~~.

~~1.23 **"Composting toilet" defined.** A manufactured turnkey or kit form treatment technology that receives human waste from a waterless toilet directly into an aerobic composting chamber where dehydration and biological activity reduce the waste volume and the content of nutrients and harmful microorganisms to an appropriate level for later disposal.~~

~~1.24 **"Cone of influence letter" defined.** A letter signed and sealed by a State of Nevada registered professional engineer stating the separation distance, leach field depth if applicable, and that the stress influence of the building foundation will not adversely affect the leach field and/or septic tank and the stress influence of the leach field and/or septic tank will not adversely affect the building foundation. This letter is required when the setbacks to the building foundation are closer than minimum requirements stated in these Regulations.~~

~~1.25 **"Constructed wetland" defined.** This is an engineered wastewater treatment system designed to simulate natural wetlands. This wetland consists of former upland environments that have been modified to create poorly drained soils and wetlands flora and fauna for the primary purpose of wastewater treatment.~~

~~1.26 **"Deep absorption system" defined**. A leach field developed to a depth of more than fifty-four inches (54") below the final grade.~~

~~1.27 **"De-nitrification" defined.** This is the systematic removal of nitrogen from wastewater, which normally involves anaerobic bacteria.~~

~~1.28~~ **DISTRIBUTION BOX** ~~**"Distribution box" defined.** A~~ means a watertight structure, which receives ~~sewage~~SEWAGE from a ~~septic tank~~ SEPTIC TANK and distributes such ~~sewage~~SEWAGE in ~~theoretically~~ equal portions to pipelines leading to the disposal area.

~~1.29~~ **DISTRIBUTION LINE** ~~**"Distribution line" defined.** Pipe used for dispersion of septic tank effluent into leach fields.~~ means a pipe, series of connected leaching chambers, or an equivalent alternative method or technology used for dispersion of SEPTIC TANK EFFLUENT into a SOIL ABSORPTION SYSTEM.

~~1.30 **"District" defined.** The term "District" shall mean the Southern Nevada Health District.~~

~~1.31~~ **DOMESTIC WASTEWATER** ~~**"Domestic sewage" defined**. The~~ means liquid and waterborne wastes derived from ordinary living processes, free from INDUSTRIAL WASTE~~S~~, normally discharged from or similar to those discharged from plumbing fixtures, appliances, and other devices dedicated to, but not limited to, sanitary, bath, laundry, dishwashing, garbage disposal, water conditioning, and cleaning purposes.~~and of such character as to permit satisfactory disposal without special treatment into the public sewer or by means of an individual sewage disposal system.~~

~~1.32 **"Dosing tank" defined.** A watertight receptacle located between a septic tank and a disposal area equipped with an automatic siphon device or pumps designed to discharge sewage intermittently in the distribution lines in amounts proportioned to the capacity of such lines and provide adequate rest periods between such discharges.~~

~~1.33 **"Drip field" defined**. This is the disposal field for treated wastewater in subsurface drip disposal systems.~~

~~1.34~~ **EFFLUENT** ~~**"Effluent" defined**. This is a~~ means partially or completely treated SEWAGE that flows out of a SEPTIC TANK or an ALTERNATIVE TREATMENT SYSTEM.

~~1.35 **"Facultative bacteria" defined.** Bacteria that have the ability to live under both aerobic and anaerobic conditions.~~

~~1.36 **"Fixture unit (FU)" defined.** A fixture unit (FU) is equal to one cubic foot (1 ft^3) of wastewater per minute, equal to 7.5 gallons per minute. A fixture unit is not a flow rate unit but a design factor.~~

~~1.37 **"Geo-textile fabric" defined.** These are permeable fabrics which, when used in association with sand, have the ability to separate, filter, reinforce, protect, or drain.~~

~~1.38 **"Grinder pump" defined.** This is a macerating pump capable of grinding up sewage, including the solid waste, so that the waste product can be pumped at pressure to a treatment system. These can be found in basements where the waste is then lifted to the surface under pressure.~~

~~1.39~~ **HEALTH AUTHORITY** ~~**"Health authority" defined.**~~ means ~~The~~the officers and agents of the Southern Nevada Health District ~~Officer or his designee~~.

HEALTH HAZARD means any biological, physical, or chemical exposure, condition, or public nuisance that may adversely affect the health of an individual.

~~1.40~~ **HOLDING TANK** ~~**"Holding tank" defined.**~~ means a~~A~~ watertight, covered receptacle that is designed and constructed to receive the discharge of SEWAGE ~~sewage~~ from a building sewer and temporarily store that SEWAGE ~~sewage~~ until the SEWAGE ~~sewage~~ is removed by a LIQUID WASTE HAULER ~~septic tank pumping contractor~~.

~~1.41~~ **INDIVIDUAL SEWAGE DISPOSAL SYSTEM (ISDS)** ~~**"Individual sewage disposal system (ISDS)" defined.**~~ means a~~A~~ single system for the treatment and disposal of ~~domestic sewage~~ DOMESTIC WASTEWATER by means of a ~~septic tank~~ SEPTIC TANK or ALTERNATIVE TREATMENT SYSTEM and a SOIL ABSORPTION SYSTEM~~soil absorption system~~.

~~1.42 **"Inlet and Outlet tees" defined.** These are devices on the inlet and outlet ports of a septic tank. The sanitary tee pipe at the tank inlet slows the incoming rush of influent to prevent disturbance to the scum layer and reduce turbulence. The sanitary tee pipe located at the tank's outlet keeps solids, scum and grease from leaving the tank and entering the soil absorption system. These must be in place at the time of inspection by the Health Authority.~~

~~1.43 **"Impervious material" defined.** This is a material having a percolation rate greater than sixty (60) minutes per inch.~~

INDUSTRIAL WASTE has the meaning ascribed to it in NAC 445A.9546.

INFILTRATIVE SURFACE means the interface where EFFLUENT moves from DISTRIBUTION LINES into treatment media or native soil.

~~1.44~~ **INFLUENT** ~~**"Influent" defined.** This is~~ means untreated, partially treated, or completely treated wastewater~~, partially or completely treated, or in its natural state,~~ flowing into a SEPTIC TANK, HOLDING TANK, or other treatment ~~unit~~, or disposal unit.

~~1.45 **"Leach field" defined.** This is a soil absorption system involved in the treatment of wastewater.~~

~~1.46 **"Lift pump" defined.** A lift pump is used to move liquid effluent from a lower pumping chamber or effluent tank to a higher level tank or possibly out of an effluent tank up to a soil~~

~~absorption system.~~

~~1.47 **"Lot" defined.** A distinct parcel of land assigned its own Assessor's Parcel Number (APN). The term does not include a parcel of land used or intended solely for use as a location for a water well.~~

~~1.48 **"Mound or Septic mound system" defined.** An effluent treatment disposal system composed of fill and a network of perforated pipes in which effluent treatment occurs within the filled bed. This is also called the Wisconsin Mound System.~~

~~1.49 **"Natural drainage channel" defined.** Canyons, swales or depressions upon and over which storm waters are sometimes transported. They may sometimes be, and generally are, dry.~~

LIMITING CONDITION means any subsurface layer or material that will severely limit the capability of the soil to treat or absorb SEWAGE, including, but not limited to, WATER TABLES, fractured or fissured bedrock, excessively permeable material, and relatively impermeable material.

LIQUID WASTE HAULER means any PERSON engaged in the operation of removing and disposing of the solid and liquid contents of SEPTIC TANKS, HOLDING TANKS, grease traps, grease interceptors, nonsewered toilets, or other SEWAGE treatment or disposal units.

LONG-TERM ACCEPTANCE RATE (LTAR) means a design parameter that expresses the rate at which EFFLUENT enters the INFILTRATIVE SURFACE of a SOIL ABSORPTION SYSTEM at equilibrium.

~~1.50~~**NITROGEN REMOVAL SYSTEM** ~~**"Nitrogen removal system" defined.** A~~ means a system that receives SEWAGE, and through biological denitrification, chemical reduction, or ion exchange, reduces the average TOTAL NITROGEN concentration in the treated EFFLUENT~~to less than or equal to ten (10) milligrams per liter or parts per million~~.

~~1.51 **"Percolation rate" defined.** The relatively constant rate, calculated in minutes per inch, at which clear water maintained at a constant depth that seeps out of a standard-size test hole that has been previously saturated.~~

~~1.52 **"Percolation test" defined.** This is a procedure to measure the percolation rate.~~

~~1.53~~ **PERSON** ~~**"Person" defined.** An~~ means an individual, firm, partnership, association, corporation, company, governmental entity, club, or organization of any kind.

~~1.54 **"Pipe and gravel leach field" defined.** This is an absorption field utilizing perforated pipes and infiltration of wastewater over ½" to 2 ½" gravel.~~

~~1.55~~ **POTABLE WATER** ~~**"Potable water" defined.** Water~~ means water that is satisfactory for drinking, culinary, ablutionary, and other domestic purposes and which meets the applicable requirements of the HEALTH AUTHORITY relating to potable water.

PUBLIC WATER SYSTEM has the meaning ascribed to it in NRS 445A.235.

~~1.56 **"PUBLIC HEALTH HAZARD" defined.** For the purpose of these Regulations, a condition whereby there are sufficient types and amounts of biological, chemical, or~~

~~physical agents relating to wastewater or SEWAGE which are likely to cause human illness, disorders, or disability. These include, but are not limited to, pathogenic viruses and bacteria, parasites, toxic chemicals and radioactive isotopes. A malfunctioning individual sewage disposal system constitutes a public health hazard.~~

~~1.57 **"Repair of ISDS" defined.** At the discretion of the Health Authority, the repair of an individual sewage disposal system is any action that allows for the unrestricted movement of effluent, which includes: the flushing and unplugging of solid pipes, installation and repair of inlet and outlet tees, and the removal and replacement of solid pipes only. Repairs include, without limitation: adding a distribution box, adding a riser for septic tank lid (s), septic tank lid replacements, centering connection to manifold (header line), adding an end cap to leach line(s), and the installation of aeration risers. Repair work does not require the issuance of an ISDS permit; however, an inspection by the Health Authority at the applicable fee may be required (see **Section 16**).~~

~~1.58 **"Retaining wall" defined.** A wall constructed to hold back at least three (3) corrugated masonry units (CMUs) high of soil or rock from a building, structure or area. Retaining walls prevent downslope movement or erosion and provide support for vertical or near- vertical grade changes.~~

~~1.59 **"Right-of-way" defined.** Includes all public and private rights-of-way and shall include all areas required for public use in accordance with any master plan or parts thereof.~~

~~1.60 **"Sand filter septic system" defined.** This is a wastewater treatment system in which the septic tank or aerobic unit effluent is intermittently spread across the surface of a bed of sand through a network of distribution lines.~~

~~1.61 **"Sand layer" defined.** This is a layer of sand at least two feet (2') thick of fine or loamy sand with geo-textile fabric lining the bottom and sides, placed below a leach field when the soil percolation rate is less than one (1) minute per inch.~~

~~1.62 **"Scum" defined.** Also referred to as "FOG" – fats, oils, and grease. This is a mass of sewage solids floating on the surface of wastes in a septic tank which is buoyed up by entrained gas, grease, or other substances.~~

~~1.63 **"Seepage bed" defined.** A trench or bed not containing a minimum of twenty-four inches (24") of clean, coarse aggregate and a system of distribution piping through which treated sewage may seep into the surrounding soil.~~

~~1.64 **"Seepage pit" defined.** An underground receptacle with manhole cover brought to the surface for observation and cleaning purposes to insure the disposal of septic tank effluent by soil absorption through its walls and bottom.~~

~~1.65 **"Septic system" defined.** See definition of **"Individual sewage disposal system (ISDS)"**~~

~~1.66~~ **SEPTIC TANK** ~~**"Septic tank" defined.** A~~ means a watertight, covered receptacle designed and constructed to receive the discharge of SEWAGE from a building sewer, to separate solids from the liquid, to digest organic matter, and to store digested solids through a period of

detention and to allow the clarified liquids to discharge for final disposal. ~~reservoir or tank which receives raw sewage, and by bacterial action and sedimentation, affects a process of clarification and decomposition of solids.~~

~~1.67 **"Septic tank pumping contractor" defined.** Any person engaged in the operation of removing and disposing of the solid and liquid contents of septic tanks, holding tanks or other sewage treatment or disposal facilities.~~

~~1.68 **"Shall" defined.** A mandatory requirement except when modified by action of the Health Authority on the basis of justifying facts submitted as part of plans and specifications for a specific installation.~~

~~1.69 **"Sequencing batch reactor" defined.** A sequencing recycling batch reactor, (SRBR®) is a form of an SBR that normally contains 2 or more tanks in series to help improve the quality of treatment and response to varying loading conditions usually encountered for small systems.~~

~~1.70~~ **SEWAGE** ~~**"Sewage" defined.** The water-carried wastes created in and to be conducted away from residences, industrial establishments and public buildings.~~ means a combination of the liquid or water-carried wastes carried by pipes from residences, business buildings, institutions, and industrial establishments.

~~1.71 **"Shallow absorption system" defined.** A leach field having a depth of fifty-four inches (54") or less below final grade shall be termed a shallow absorption system.~~

~~1.72 **"Sludge" defined.** This is the accumulation of solids which have settled in a septic tank or a sewage holding tank.~~

~~1.73~~ **SOIL ABSORPTION SYSTEM** ~~**"Soil absorption system" defined.** Any~~ means any system that utilizes the soil for subsequent absorption ~~of treated sewage, such as an absorption trench, seepage bed or a seepage pit~~and treatment of EFFLUENT.

~~1.74 **"Soil permeability" defined.** This is the rate of wastewater movement through saturated soil in inches per hour.~~

~~1.75 **"Streets" defined.** Streets include avenues, boulevards, roads, lanes, alleys, viaducts, public easements and rights-of-ways.~~

~~1.76 **"Structure" defined.** A structure is something built or constructed. A structure is synonymous with a building and has columns that support a roof.~~

~~1.77 **"Subsurface drip disposal system (SDD)" defined.** This is a shallow, pressure-dosed, slow-rate, underground disposal system for treated wastewater, utilizing drip technology. It uses several hundred or thousand dosing points equally. Disposal of wastewater above the ground surface is prohibited.~~

~~1.78 **"Substantially compliant" defined.** At the discretion of the Health Authority, this is less than or equal to a 10% variation from the required measurement or area, excluding structure, property line, and drinking water well setback requirements.~~

~~1.79 **"Sweeping Tee" defined.** This is a tee fitting that allows direct flow in one direction by the use of an internal baffle. Sweeping Tees are prohibited.~~

~~1.80 **"System failure" defined.** Sewage effluent exceeds the infiltration capacity of the soil resulting in noxious odors, and ponding.~~

~~1.81 **"Tenant improvement" defined.** This is a revision to an ISDS permit issued by the Health Authority for the construction of a structure or the remodel of an existing structure prior to the issuance of a building permit.~~

~~1.82 **"Test hole" defined.** A test hole is ground penetration for the purpose of geotechnical, geophysical or geologic investigation. For the purpose of these Regulations, it is used to determine the depth of groundwater. There must be a five feet (5') minimum vertical separation between the groundwater table and the bottom of the soil absorption system.~~

~~1.83 **"Total nitrogen**~~**TOTAL NITROGEN (TN)**~~**" defined.**~~ means ~~The~~ the sum of the total Kjeldahl nitrogen (TKN), nitrate (NO_3), and nitrite (NO_2) in a sample, expressed as mg/L as nitrogen~~wastewater is comprised of dissolved inorganic and organic nitrogen and particulate organic and inorganic nitrogen, minus nitrogen gas~~.

~~1.84 **"Total Suspended Solids (TSS)" defined.** These are particles that are not dissolved in solution.~~

~~1.85 **"Tree" defined.** A tree is a plant having a main stem or trunk, including palm trees.~~

~~1.86 **"Vapor barrier" defined.** This is a one foot wide trench to the depth of the leach field, lined with 10 mL or greater of visqueen and filled with utility sand.~~

~~1.87 **"Wastewater" defined.** See definition of **"Sewage"**~~

~~1.88 **"Watercourse**~~**WATERCOURSE**~~**" defined.** Any channel through which water flows, or any stream of water such as a river, a brook or an underground stream. The term does not include intermittent natural streams or washes which have no lasting effect on the bacteriological process in the soil which could change the process from predominantly aerobic to predominantly anaerobic.~~means the bed or channel of a waterway. The term includes, without limitation, a river, creek, stream, pond, or lake, but does not include an irrigation ditch or drainage channel.

~~1.89 **"Waters of the state" defined.** Per NRS 445A.415, these are all waters situated wholly or partly within or bordering upon this State, including but not limited to: all streams, lakes, ponds, impounding reservoirs, marshes, watercourses, water ways, wells, springs, irrigation systems and drainage systems; and all bodies or accumulations of water, surface and underground natural or artificial.~~

~~1.90 **"Water softener" defined.** Water softeners remove unwanted minerals from the water supply using one of several methods such as ion exchange, producing a brine waste stream. The Health Authority does not recommend the discharge of water softener backwash brine into the septic system.~~

~~1.91~~ **~~"Water table~~** **WATER TABLE** **~~" defined.~~** ~~This is~~ means the level in saturated soil at which the hydraulic pressure is zero.

~~1.92 **"Waterproof" defined.** Coated with a material to prevent permeation by water.~~

~~**Section 2**~~
~~**PERMISSION TO CONSTRUCT – PERMIT APPLICATIONS**~~

~~2.1 In cities, political subdivisions and in all unincorporated areas within the District's boundaries, prior permission to construct, alter or extend an ISDS shall be obtained from the District. This permission shall be required before any building permit or certificate of occupancy can be issued for any structure to be served by an individual sewage disposal system.~~

Chapter 2 – ISDS Permits

2-1 ISDS Construction Permits

2-1.01 General Provisions

(A) A PERSON must not construct, alter, repair, replace, or expand an ISDS without a valid ISDS Construction Permit issued by the HEALTH AUTHORITY, except for emergency repairs that meet the following conditions:
  (1) The repairs are necessary to prevent an imminent HEALTH HAZARD;
  (2) The repairs are limited to restoring the ISDS to its most recently permitted state, or in the case of unpermitted ISDS, to a condition necessary to prevent a HEALTH HAZARD until the ISDS can be permitted or decommissioned in accordance with **Chapter 9** of these Regulations; and
  (3) The property owner or the property owner's representative notifies the HEALTH AUTHORITY within 48 hours of commencing repair activities.

(B) The following activities do not require an ISDS Construction Permit:
  (1) Adding a riser to a SEPTIC TANK lid;
  (2) Cleaning or replacing subcomponents such as switches, valves, pumps, or filters;
  (3) Inspecting or pumping a SEPTIC TANK; or
  (4) Locating a SEPTIC TANK for inspection or pumping.

(C) An ISDS Construction Permit will become invalid if the proposed construction, alteration, repair, replacement, or expansion of the ISDS is not started within 12 months of the date of issuance, and completed within 12 months after it has started.

(D) If an ISDS Construction Permit has expired or become invalid, installation must not be commenced or completed until a new ISDS Construction Permit is obtained.

(E) A Commercial ISDS Construction Permit is required for the construction, alteration, repair, replacement, or expansion of an ISDS that serves or will serve a COMMERCIAL FACILITY and is within the jurisdiction of the HEALTH AUTHORITY in accordance with the most current Memorandum of Agreement between the HEALTH AUTHORITY and NDEP.

(F) An ISDS Construction Permit shall be denied if:
  (1) The HEALTH AUTHORITY determines that the proposed ISDS will not comply with these Regulations;
  (2) The parcel on which the ISDS will be installed uses or will use the waters of the Colorado River distributed by the Southern Nevada Water Authority or one of the member agencies of the Southern Nevada Water Authority, except that an ISDS Construction Permit may be issued for the repair of an existing ISDS when the repair does not increase the capacity of the ISDS;

(3) A COMMUNITY SEWERAGE SYSTEM is available within 400 feet of the nearest property line, can be accessed by a gravity flow line, and is accessible per the sewer authority of jurisdiction;

(4) The proposed ISDS will be located within a Nitrogen Restricted Area, as designated by the Nevada Division of Environmental Protection (NDEP) pursuant to NAC 445A.9606; or

(5) The ISDS is not within the jurisdiction of the HEALTH AUTHORITY in accordance with the most current Memorandum of Agreement between the HEALTH AUTHORITY and NDEP.

~~2.2 **Residential ISDS Permit**. The Health Authority may require additional information on a case-by-case basis to fulfill the requirements for all septic system permit applications. The septic system permit application shall include the following:~~

~~2.2.1 An application to the Health Authority constitutes the submittal of **all** of the requirements for the permit sought. This includes, without limitation: a plot plan, with the north directional arrow, drawn to an engineer or architect's scale including the dimensions of lot lines, land area available, applicable street names, easements, driveway, and topography. The plot plan shall also locate the proposed individual sewage disposal system with reference to distances of separation from water supply line(s), water meter, watercourse, wash, flood control way, fire hydrant(s), well(s), building(s), structure(s), retaining wall(s), block wall(s), tree(s), proposed swimming pool, spa, pool equipment and property lines. The plot plan must include the distance to the nearest sewer line, if the community is served by public sewer.~~

~~2.2.2 The submittal shall include soil characteristics, depth to water table or bedrock, if soil percolation rate submitted is lower than the standard used which is fifteen minutes per inch (15 min/inch), and plumbing fixture units.~~

~~2.2.3 The submittal shall include the recorded deed for the property and a full-sized parcel map or subdivision map as recorded with the Clark County Recorder's Office.~~

~~2.2.4 The application shall not be processed without proof of an approved water source, which includes, without limitation, a letter from a municipal water agency (if not served by the Las Vegas Valley Water District) stating that the property will be served with water, or a well driller's report and approval by the Nevada Division of Water Resources.~~

~~2.2.5 The application shall not be processed without an inquiry response from the municipal sewer agency within jurisdiction of the property or from the Public Works Department setting forth whether the property fits the criteria to connect the public system.~~

2-1.02 Residential ISDS Construction Permits

(A) The property owner or the property owner's representative must apply to the HEALTH AUTHORITY for a Residential ISDS Construction Permit in a manner or form approved by the HEALTH AUTHORITY.

(B) A Residential ISDS Construction Permit application may require any or all the following information, without limitation:

(1) The recorded deed for the property on which the ISDS construction, alteration, repair, replacement, or expansion is proposed;

(2) A full-size parcel map, subdivision map, or record of survey as recorded with the Clark County Recorder's Office, or a map or plat prepared and stamped by a professional land surveyor;

(3) Proof of an approved potable water source that meets applicable federal, state, and local standards for water quality and quantity, which must be demonstrated by:

(a) A written water commitment from a PUBLIC WATER SYSTEM stating that the property will be served with water, except as otherwise provided by **Subsection 2-1.01(F)(2)**; or

(b) A well driller's report, approval by the Nevada Division of Water Resources (NDWR), and water quality analysis.

i. Samples must be collected directly from the well or other water source, before the water enters any distribution, filtration, or treatment system.

ii. The water must be tested for the analytes typically included in a routine domestic water panel, unless otherwise required by the HEALTH AUTHORITY.

iii. Testing must be performed by a laboratory that is certified by NDEP to test for the analytes specified.

(4) Documentation from the COMMUNITY SEWERAGE SYSTEM with nearby sewer infrastructure stating whether the property meets its criteria to connect to the sewer system;

(5) A complete Site Evaluation in accordance with **Chapter 4** of these Regulations;

(6) A nitrogen evaluation in accordance with **Chapter 8** of these Regulations.

(7) A floor plan showing all plumbing fixtures;

(8) A plot and grading plan, which must include, without limitation:

(a) The title and date of the plan;

(b) A map of the area in which the ISDS will be located that shows the location of the roads and streets;

(c) The dimensions of the lot on which the ISDS will be located;

(d) The direction of north clearly indicated;

(e) The scale to which the plan is drawn (e.g., 1 inch = 30 feet);

(f) Each component of the ISDS, which must be properly marked and located at specified distances, in feet;

(g) The capacity of the SEPTIC TANK or other storage or treatment unit;

(h) The treatment area of the SOIL ABSORPTION SYSTEM;

(i) The location and depth of each proposed or actual well, including the depth of casing and surface grout seal;

(j) The location of each percolation test hole, excavated pit, or boring test hole;

(k) The location of the water supply lines, building sewer lines, and other underground utilities;

(l) The location of all buildings, paved areas, driveways, trees, patios, pools, block walls, retaining walls, and other structures;
(m) The location and distance to wells and ISDS on surrounding lots, or if the lots are vacant the plot plan must so indicate;
(n) The distance within 500 feet to any WATERCOURSE, including, without limitation, any pond, lagoon, or stream, or if there are none the plot plan must so indicate; and
(o) The distance to public and private sewer lines, or if there are none the plot plan must so indicate; and

(9) Any other information requested by the HEALTH AUTHORITY.

2-1.03 Commercial ISDS Construction Permits

(A) The issuance of a Commercial ISDS Construction Permit from the HEALTH AUTHORITY will be in conformance with the most current Memorandum of Agreement signed with NDEP.

(B) The property owner or the property owner's representative must apply to the HEALTH AUTHORITY for a Commercial ISDS Construction Permit in a manner or form approved by the HEALTH AUTHORITY.

(C) In addition to all items specified in **Subsection 2-1.02(B)**, inclusive, the Commercial ISDS Construction Permit application must include, without limitation:
(1) A statement regarding the relationship of the property to the 100-year flood plain, signed and sealed by a State of Nevada registered professional engineer;
(2) If the COMMERCIAL FACILITY will discharge anything other than DOMESTIC WASTEWATER to the ISDS:
(a) Information related to wastewater characteristics and strength;
(b) Design computations for interceptors;
(c) Any other information required under **Section 5-1**; and
(d) Any other information requested by the HEALTH AUTHORITY.

(D) In addition to all items specified in **Subsection 2-1.02(B)(7)**, inclusive, the plot and grading plan for a Commercial ISDS must include, without limitation:
(1) Finished grade contour elevations;
(2) Invert elevations for all plumbing relating to the ISDS;
(3) A permanent barrier to prevent vehicular access and/or traffic over the ISDS, unless the proposed tank is traffic-rated;
(a) A tank will be considered traffic-rated if it meets the AASHTO H-20 design loading criteria or a more restrictive standard.
(b) If a traffic-rated SEPTIC TANK is proposed, the SEPTIC TANK detail must be submitted.
(4) Parking lots, including bumpers; and
(5) A seal and signature from a State of Nevada registered professional engineer.

(E) COMMERCIAL FACILITIES that are subject to other regulations adopted or enforced by the HEALTH AUTHORITY may be required to obtain additional approval from the HEALTH AUTHORITY before issuance of a Commercial ISDS Construction Permit.

(F) All computations related to the design of the ISDS must be available for review by the HEALTH AUTHORITY upon request.

~~2.2.6 For food establishments, childcare facilities and any other facility requiring Plan Reviews from other Health District sections, the floor plan(s) must first be approved by the District's Plan Review Section, prior to submission for a commercial ISDS permit. Floor plans submitted should be signed and~~

dated by the assigned Plan Review person.

2.2.7 The plot plan, showing finished grade contour elevations, must be signed and sealed by a State of Nevada registered professional engineer.

2.2.8 The plot plan must include invert elevations for all plumbing relating to the septic system.

2.2.9 The plot plan must include a permanent barrier to prevent vehicular access and/or traffic over the septic system. If a traffic-rated septic tank is proposed, the septic tank detail must be submitted.

2.2.10 Parking lots must be shown, along with bumpers (if applicable).

The mechanical plumbing plans for condensate waste lines / evaporative cooler overflow lines must drain indirectly to the septic system through a sand/oil or similar interceptor. If a closed air conditioning (AC) unit is proposed, with no condensate to be drained, then a note to that effect must be included on the mechanical plumbing plan that is signed and sealed by the engineer.

2.2.11 A statement either on the plot plan or on letterhead, signed and sealed by a State of Nevada registered professional engineer regarding the relationship of the property to the 50-year flood plain.

2.2.12 Each commercial building with plumbing requires its own septic system.

2.2.13 Commercial ISDS permits will be approved for the treatment of human waste only. No chemical waste shall be allowed to enter the ISDS. Any transfer of a property with a commercial ISDS must have the approval of the Health Authority for continued use.

2.2.14 A commercial water supply well per the Nevada Division of Water Resources is required for all commercial ISDS permits.

2.3 **Commercial Holding Tank Permit.** The issuance of a commercial holding tank permit from SNHD shall be in conformance with the most current Memorandum of Agreement signed with the Nevada Division of Environmental Protection (NDEP).A commercial holding tank permit shall only be installed on non-residential properties on a temporary basis. The maximum length of time for a commercial holding tank permit shall be twelve (12) months from the date of issuance. The application requirements for commercial holding tanks shall include:

2.3.1 The legal description of the property, tax assessor's parcel number (APN), recorded deed, and a map of the site with a north directional arrow indicating the nearest street intersection.

2.3.2 A plot plan, signed and sealed by a State of Nevada registered professional engineer, drawn to an engineer or architect's scale showing the proposed

location of the holding tank (along with the tank capacity), modular/trailer or temporary structure, water meter, water lines (s), sewer line (s) with invert elevations, and parking area.

2.3.3 A floor plan showing all plumbing fixtures.

2.3.4 A letter from the applicant requesting the permit, including the following: the location of the property, reason for the request, time frame anticipated (12 months maximum).

2.3.5 An inquiry response from the municipal sewer agency within the jurisdiction of the property or from the Public Works Department setting forth whether the property fits the criteria to connect to the public system.

2.3.6 A copy of a contract with a Health Authority approved liquid waste hauler.

2.3.7 A copy of a water meter receipt or a water service application acknowledgement from the water utility within the jurisdiction of the property. If the property will be served by a well, a copy of the well driller's log including the Nevada Division of Water Resources permit number is required. The water supply from the well must be approved by the Nevada Division of Water Resources for the commercial holding tank permit. Water connection to the modular/trailer or temporary structure must be completed prior to inspection from Health Authority.

2.3.8 Inspection of the commercial holding tank shall be according to the inspection requirements in **Section 16** of these Regulations.

2.3.9 **Commercial Re-submittal Fee.** If all items are not submitted to the Health Authority for the processing of a commercial ISDS or commercial holding tank permit **or** if revisions are necessary, a re-submittal fee as referenced by the current SNHD Environmental Health Permit Fee Schedule as it applies to individual sewage disposal systems shall be applicable. The re-submittal fee must be paid and the corrective actions addressed prior to the issuance of the permit.

2.4 **ISDS Permit Fee.** Pursuant to NRS 439.360(5) and NRS 439.366(1), the Board adopts by reference the current SNHD Environmental Health Permit Fee Schedule as it applies to individual sewage disposal systems (ISDS). The permit fee must be paid at the time of application to the Health Authority. All permit fees are non-refundable.

2.5 An individual sewage disposal system permit issued under these Regulations shall be considered as a temporary permit to operate the ISDS. The operating permit shall be valid until the disposal system fails; or a community sewerage system is installed to service the area and connection hereto is legally required.

2.6 Permission to construct shall be denied if:

~~2.6.1 The Health Authority determines that the proposed installation will not comply with these Regulations; or~~

~~2.6.2 A public or community sewerage system is available within four hundred feet (400') of the nearest property line and can be accessed by a gravity flow line, and is accessible per the sewer authority of jurisdiction.~~

~~2.7 Where the natural soil condition has been altered by filling or other attempts to improve wet areas, verification may require observations of high groundwater levels under saturated soil conditions.~~

~~2.8 Permits shall be null and void after twelve (12) months from the date of issuance, if the proposed construction, alteration or extension of the sewage disposal system is not started within this time. A **one time** ninety (90) day extension of time may be requested in writing by the ISDS permit holder **before** the permit expiration date, including without limitation, the ISDS permit number, the active building permit number, and the signature of the permittee.~~

~~2.9 At the discretion of the Health Authority, the ISDS may be required to be installed by a State of Nevada licensed contractor.~~

2-1.04 ISDS Inspection Requirements

(A) Any activity that requires an ISDS Construction Permit in accordance with **Subsection 2-1.01** must be inspected and approved by the HEALTH AUTHORITY before any system components are covered or placed into service unless the HEALTH AUTHORITY expressly waives the inspection requirement in writing.

(B) All inspections required under this Subsection must be performed by the HEALTH AUTHORITY unless:

(1) The HEALTH AUTHORITY expressly delegates its right to inspect to a third-party in writing; and

(2) The third-party inspector is certified in accordance with **Subsection 2-4.01**.

(C) The HEALTH AUTHORITY may require multiple inspections, including, without limitation:

(1) Inspection of the site before excavation has begun;

(2) Inspection of the excavation before the ISDS components are installed to ensure proper location and depth of the excavation;

(3) Inspection of final grading and landscaping to ensure that the ISDS is not subject to stormwater erosion or ponding, root intrusion, or vehicular traffic; and

(4) Inspection of ALTERNATIVE TREATMENT SYSTEMS, as applicable.

(D) The HEALTH AUTHORITY shall approve the construction, installation, modification, alteration, extension, and/or repair of an ISDS only when the ISDS conforms with:

(1) The design submitted as part of the ISDS Construction Permit application and approved by the HEALTH AUTHORITY;

(2) All conditions associated with the ISDS Construction Permit;

(3) The design and construction requirements of **Chapter 5**; and

(4) All other applicable provisions of these Regulations.

(E) The property owner and the installer of the ISDS are responsible for meeting all inspection requirements, including, without limitation:

(1) Ensuring that the inspector can access all components of the ISDS;

(2) Clearly marking all property boundaries;

(3) When a DISTRIBUTION BOX is utilized, providing the inspector with access to an adequate supply of water to verify that the EFFLUENT will be distributed evenly through the outlet pipes;
(4) When requested by the HEALTH AUTHORITY, demonstrating that the SEPTIC TANK is watertight according to a procedure specified by the manufacturer, the most current edition of the ASTM C1227 Standard, or an equivalent standard approved by the HEALTH AUTHORITY;
(5) Providing to the inspector, when requested, any specific equipment that is required to install or inspect the ISDS; and
(6) Ensuring that the construction area, including any excavations, equipment, and/or ISDS components, does not present an unreasonable safety hazard.

(F) The HEALTH AUTHORITY may require the ISDS to be installed by a State of Nevada licensed contractor and/or may require the installer to demonstrate knowledge and understanding of these Regulations prior to the installation.

(G) When the HEALTH AUTHORITY does not approve an ISDS inspection, a reinspection and the associated fee shall be required unless the HEALTH AUTHORITY expressly waives the reinspection requirement in writing.

2-2 ISDS Operating Permits

2-2.01 General Provisions

(A) A PERSON must not use or operate an ISDS or occupy a structure served by an ISDS without a valid ISDS Operating Permit issued by the HEALTH AUTHORITY.

(B) An ISDS Operating Permit issued under these Regulations is a temporary, revocable permit to operate the ISDS, and it is the responsibility of the owner of the property served by the ISDS to maintain the ISDS and comply with all applicable provisions of these Regulations.

(C) The HEALTH AUTHORITY may impose additional conditions on a Residential ISDS Operating Permit when it determines that the property or structure served by the ISDS is associated with a commercial use.

2-2.02 Issuance

(A) All ISDS existing on the effective date of these Regulations, with or without valid permits, shall be issued an ISDS Operating Permit, beginning six months after the effective date of these Regulations.

(B) The HEALTH AUTHORITY shall issue an ISDS Operating Permit to newly constructed, altered, or expanded ISDS that meet the following conditions:
(1) Approved inspection in accordance with **Section 2-1.04**, including fulfillment of all conditions of approval, if applicable;
(2) Photo documentation of the final grading and landscaping;
(3) An AS-BUILT drawing of the ISDS if it was not installed in accordance with the original plot plan;
(4) Documentation demonstrating that existing ISDS have been decommissioned in accordance with **Chapter 9**, if applicable;
(5) Payment of all fees; and
(6) Any additional conditions imposed by the HEALTH AUTHORITY.

2-2.03 Duration and Renewal

(A) The ISDS Operating Permit expires five years after the date of issuance or upon property transfer, whichever occurs first.

(B) The ISDS Operating Permit continues in effect until its expiration date or until it is revoked, suspended, or not renewed by the HEALTH AUTHORITY.

(C) The HEALTH AUTHORITY may renew the ISDS Operating Permit of a compliant ISDS for an additional five years unless the permit has been revoked in accordance with **Chapter 12** or when applicable law or regulation requires connection to a COMMUNITY SEWERAGE SYSTEM.

(1) For the purposes of this Subsection, a property is required to connect to a COMMUNITY SEWERAGE SYSTEM when the COMMUNITY SEWERAGE SYSTEM is within a street directly adjacent to the property and is accessible per the sewer authority of jurisdiction.

(D) Maintenance of the ISDS Operating Permit requires payment of the associated permit fee in the amount specified in the current SNHD Environmental Health Permit Fee Schedule.

~~**Section 3**~~
~~**TENANT IMPROVEMENT APPLICATIONS**~~

~~3.1 A Tenant Improvement Application is required for the construction of a new structure with or without plumbing or the remodel of an existing structure, prior to the issuance of a building permit or certificate of occupancy from the Building Department of the local jurisdiction.~~

~~3.2 The Tenant Improvement Application constitutes the submittal of all of the requirements for processing to the Health Authority.~~

~~3.3 A plot plan shall be submitted in accordance with **Section 2.2** inclusive for residential and **Section 2.3** inclusive for commercial, for the processing of all tenant improvement approval requests.~~

~~3.4 Any plumbing additions to parcels being served by a community well (quasi-municipal well) shall require the approval of the Nevada Division of Water Resources prior to approval from the Health Authority.~~

~~3.5 Any Tenant Improvements with additional plumbing will require a septic system installed according to these Regulations, which may require a new ISDS Residential Permit or repairs to an existing ISDS.~~

~~3.6 **Tenant Improvement Processing Fee.** Pursuant to NRS 439.360(5) and NRS 439.366(1), the Board adopts by reference the current SNHD Environmental Health Permit Fee Schedule as it applies to individual sewage disposal systems (ISDS). The tenant improvement processing fee must be paid at the time of application. All fees shall be non-refundable. At the discretion of the Health Authority, an inspection based on the current Environmental Health Fee Schedule to verify the location of the ISDS, verify repairs or to verify compliance with these Regulations.~~

~~3.7 The Tenant Improvement approval request shall be denied if the existing individual sewage disposal system (ISDS) is in violation of any of these Regulations.~~

~~3.8 Detached corner buildings with plumbing will not be approved as Tenant Improvements. A separate commercial ISDS permit will be required.~~

~~3.9 Tenant Improvements will not be approved for properties without a Health Authority approved ISDS permit.~~

~~3.10 In lieu of building plans showing plumbing fixtures, a letter signed by a State of Nevada licensed plumber, including licensed number, will be acceptable. The letter must detail the number of individual plumbing fixtures, and specify how many toilets are low-flow (1.6 gallons per flush).~~

2-2.04 Modifications

(A) The property owner or the property owner's representative must apply to the HEALTH AUTHORITY for permission to modify an ISDS Operating Permit in a manner or form approved by the HEALTH AUTHORITY.

(B) Approval to modify an ISDS Operating Permit must be obtained from the HEALTH AUTHORITY in the following circumstances, without limitation:
  (1) Construction of a new building, with or without plumbing;
  (2) Remodel of an existing building, with or without plumbing;
  (3) Installation of a temporary building;
  (4) Installation of an inground or aboveground pool or spa;
  (5) Change in use type or characteristics;
  (6) Variances, zoning changes, waivers of development standards, use permits, design reviews, or other deviation from applicable development or building codes or standards;
  (7) Division of land on which an ISDS is located; or
  (8) Any other activity that may affect the operation or longevity of the ISDS.

(C) An application to modify an ISDS Operating Permit may require any or all of the following information, without limitation:
  (1) A plot and grading plan in accordance with **Subsection 2-1.02(B)(8)**, inclusive;
  (2) A floor plan showing all plumbing fixtures or other documentation approved by the HEALTH AUTHORITY to adequately and accurately represent the existing and proposed flows to the ISDS;
  (3) Approval from the Nevada Division of Water Resources (NDWR) if the property on which the ISDS is located is served by a well permitted by NDWR and the proposed modification may increase the water use of the property;
  (4) Proof of adequate water rights if the property on which the ISDS is located is served by a domestic well and the proposed modification or use is anything other than a domestic use as defined by NRS 534.013;
  (5) Proof of application to become a permitted PUBLIC WATER SYSTEM if the property on which the ISDS is located is served by a water system that the HEALTH AUTHORITY determines may be subject to regulation under the Safe Drinking Water Act (SDWA), and which does not have a permit to operate as required by NRS 445A.885 and NAC 445A.595-614, inclusive;
  (6) Approval from the PUBLIC WATER SYSTEM if the property on which the ISDS is located is served by a permitted PUBLIC WATER SYSTEM;
  (7) Documentation from the COMMUNITY SEWERAGE SYSTEMS with nearby sewer infrastructure stating whether the property meets their criteria to connect to the sewer system;
  (8) Any applications to subdivide the property on which the ISDS is located;
  (9) Any associated land use applications and supporting documentation; and
  (10) Any other information requested by the HEALTH AUTHORITY.

(D) The HEALTH AUTHORITY may deny an application to modify an ISDS Operating Permit when the existing ISDS is in violation of any provision of these Regulations or any other applicable federal, state, or local law, regulation, ordinance, or code.

2-3 ISDS Maintenance Requirements

(A) Any PERSON owning or controlling property upon which an ISDS is installed is responsible for the operation and maintenance of the ISDS.

(B) The SEPTIC TANK must be pumped by a LIQUID WASTE HAULER approved by the HEALTH AUTHORITY within six (6) months before the sale, transfer, contract for deed, or any other conveyance of land upon which the ISDS is located, and at least once every ten (10) years.

(C) Upon request from the HEALTH AUTHORITY, the property owner must provide a receipt or other documentation demonstrating that the SEPTIC TANK has been pumped within the required period.

(D) A PERSON must not cause, perform, or contribute to any action, activity, or condition that may tend to damage the ISDS or reduce its hydraulic or treatment capacity, including, without limitation:

(1) Introduction of flows to the ISDS that are not DOMESTIC WASTEWATER, including, but not limited to:

(a) Pool or spa discharges;

(b) Water softener backwash;

(c) Nonbiodegradable solids (e.g., "flushable" wet wipes);

(d) Flammable, explosive, poisonous, or hazardous liquids, solids, or gases, including any material identified as a hazardous waste under 40 CFR 261;

(e) Oils or grease; or

(f) Any other liquid, solid, or gas that would or could cause damage to the ISDS.

(2) Disposal of recreational vehicle (RV) waste into the ISDS;

(3) Discharge of rainwater or other large volumes of water into the ISDS;

(4) Excessive irrigation over the ISDS or allowing water to accumulate above the SOIL ABSORPTION SYSTEM;

(5) Construction of a building or structure on or within eight feet (8') of the ISDS;

(6) Driving or parking vehicles or heavy equipment on the SEPTIC TANK unless the tank has been approved and found to meet the AASHTO H-20 design loading criteria or a more restrictive standard;

(7) Driving or parking vehicles or heavy equipment on the SOIL ABSORPTION SYSTEM under any circumstances; or

(8) Placement of an impermeable material over the SOIL ABSORPTION SYSTEM that may restrict subsoil reaeration.

Section 4
CERTIFICATION OF INDIVIDUAL SEWAGE DISPOSAL SYSTEMS (ISDS)

4.1 The Health Authority shall be the sole entity within its jurisdiction that provides official certification for permitted individual sewage disposal systems.

4.2 The Health Authority shall only provide certification of permitted individual sewage disposal systems (ISDS) in compliance with these Regulations, and water wells logged with the Nevada Division of Water Resources.

4.3 The certification of an ISDS and/or water well shall be valid for one (1) year after issuance provided that no changes are made to the property. Certifications shall be null and void if any changes are made to the property, septic system, or water supply.

4.4 **ISDS Certification Fee.** Pursuant to NRS 439.360(5) and NRS 439.366(1), the Board adopts by reference the current SNHD Environmental Health Permit Fee Schedule as it applies to individual sewage disposal systems (ISDS). The ISDS certification fee must be paid to the Health Authority prior to scheduling an inspection. The ISDS certification fee shall be non-refundable.

4.5 The ISDS certification procedure includes the following requirements:

4.5.1 If the final ISDS construction approval occurred within the last three (3) months to date when the certification is requested, a file search fee, according to the current SNHD Environmental Health Fee Schedule, shall be required for the ISDS certification and an onsite inspection will not be required.

4.5.2 If the final construction approval occurred within twelve (12) months to the date when the certification is requested, an onsite inspection of the property is required and the septic tank lid does not have to be removed.

4.5.3 If the final ISDS construction approval is over twelve (12) months to the date when the certification is requested, the septic tank lid must be removed for inspection, that is, first compartment of the septic tank that connects directly to the sewer line from the building. However, if a pumping receipt is submitted to the Health Authority from an approved liquid waste hauler dated within twelve (12) months to the date the certification is requested, then the septic tank lid does **not** have to be removed for inspection.

4.5.4 The Health Authority may request additional information to complete the ISDS certification process.

4.5.5 If the certification is not approved, the re-inspection fee shall be assessed according to the current SNHD Environmental Health Fee Schedule. The re-inspection fee must be paid prior to scheduling another inspection.

4.5.6 If plumbing additions have been made to the property without Health Authority approval, a Tenant Improvement must be approved before any certification is issued.

~~4.6 The water well certification procedure includes the following requirements:~~

~~4.6.1 A copy of the well driller's log approved by the Nevada Division of Water Resources is required, if a copy is not on file with the Health Authority.~~

~~4.6.2 The certification fee shall be paid prior to scheduling the inspection of the water well. The certification fee shall be non-refundable.~~

~~4.6.3 The Health Authority shall have full access to the well and pump for inspection purposes.~~

~~4.6.4 A chemical and bacteriological analysis shall be required for the certification of the well water. This may be done through a private laboratory certified by the State of Nevada. The original test results must be submitted to the Health Authority for review before the certification of the well can be processed.~~

~~4.6.5 The water sample tested must meet all the EPA and State of Nevada Safe Drinking Water Standards in order for the well to be certified.~~

~~4.6.6 If the certification is not approved, the re-inspection fee shall be according to the current SNHD Environmental Health Fee Schedule. The re-inspection fee must be paid prior to scheduling another inspection.~~

~~4.6.7 The Health Authority may request additional information to complete the water well certification process.~~

2-4 ISDS Property Transfer Requirements

(A) Within 90 days before the sale, transfer, contract for deed, or any other conveyance of land upon which an ISDS is located, the following requirements must be met:

(1) The property owner or the property owner's representative must notify the HEALTH AUTHORITY of the intent to transfer the property in a manner or form approved by the HEALTH AUTHORITY;

(2) A Property Transfer Inspection must be performed by the HEALTH AUTHORITY or by a third-party inspector approved by the HEALTH AUTHORITY unless one of the following exemptions applies:

(a) The ISDS has an approved Report of Inspection dated within three (3) years of the date of sale; or

(b) The property owner or the property owner's representative presents a signed disclosure statement and supporting documentation to the HEALTH AUTHORITY indicating that:

(i) No ISDS exists on the property or all ISDS on the property have been decommissioned in compliance with **Chapter 9**;

(ii) An ISDS is not required on the property; and

(iii) The property is connected to a COMMUNITY SEWERAGE SYSTEM;

(3) If the property is served by a domestic well, a well permitted by the Nevada Division of Water Resources (NDWR), or another water source that is not a PUBLIC WATER SYSTEM, the property owner or the property owner's representative must test the water source for evidence of contamination.

(a) Samples must be collected directly from the well or other source, before the water enters any distribution, filtration, or treatment system.
(b) The water must be tested for the analytes typically included in a routine domestic water panel, unless otherwise required by the HEALTH AUTHORITY.
(c) Testing must be performed by a laboratory that is certified by NDEP to test for the analytes specified; and

(4) The property owner or the property owner's representative must provide to the HEALTH AUTHORITY and to the PERSON to whom the property is transferred:
(a) The completed Report of Inspection;
(b) Results of well water quality testing in accordance with **Subsection 2-4(A)(3)**, if applicable; and
(c) Documents relating to permitting, installation, operation, and maintenance of the ISDS.

(B) This Section does not apply to a sale or transfer of property that meets one of the exemptions listed in NRS 375.090;

(C) The Property Transfer Inspection must be performed by an inspector certified by the HEALTH AUTHORITY in accordance with **Subsection 2-4.01** of these Regulations.

(D) The Property Transfer Inspection must be performed in accordance with the procedures described in **Subsection 2-4.02** of these Regulations.

(E) If the property has a NITROGEN REMOVAL SYSTEM, the new property owner must provide the HEALTH AUTHORITY with an updated maintenance contract within 30 days from the close of escrow.

(F) A new ISDS Operating Permit shall be issued to the new property owner in accordance with **Section 2-2** upon completion of the sale, transfer, contract for deed, or other conveyance of land.

(G) Failure to comply with any of the requirements of this Section may result in revocation of the ISDS Operating Permit in accordance with **Chapter 12** and/or assessment of fees in accordance with the current SNHD Environmental Health Permit Fee Schedule.

2-4.01 Inspector Qualifications

(A) A PERSON must apply for and obtain a Certificate of Training from the HEALTH AUTHORITY before performing any inspections under this Section.

(B) The HEALTH AUTHORITY may grant a Certificate of Training to an applicant who:
(1) Possesses working knowledge of ISDS and the inspection process;
(2) Holds a certificate of training from a course recognized by the HEALTH AUTHORITY as sufficiently covering the information specified in **Subsection 2-4.02**; and
(3) Holds a license or certification in one of the following categories:
(a) A Nevada professional engineer licensed according to NRS 625;
(b) A Nevada environmental health specialist licensed according to NRS 625A;
(c) A PERSON certified by the National Association of Wastewater Technicians (NAWT) or an equivalent program approved by the HEALTH AUTHORITY;
(d) A licensed contractor in one of the following categories:
(i) Classification C-27: Individual Sewerage; or
(ii) Subclassification A-15: Sewers, Drains, and Pipes.
(e) An inspector of structures certified in accordance with NAC 645D;
(f) A wastewater treatment plant operator certified according to NAC 445A.2862-294; or
(g) A PERSON qualifying under another category or criteria designated by the HEALTH AUTHORITY.

(C) The HEALTH AUTHORITY may revoke a Certificate of Training from any third-party inspector certified under this Subsection who:

(1) No longer meets one of the qualification requirements defined in **Subsection 2-4.01(B)**;

(2) Consistently fails to comply with the inspection criteria defined in **Subsection 2-4.02**; or

(3) Violates a provision of these Regulations, or any other applicable federal, state, or local law, regulation, ordinance, or code.

2-4.02 Inspection Criteria

(A) The inspector must complete and sign a Report of Inspection on a form approved by the HEALTH AUTHORITY and provide it to the buyer, seller, and HEALTH AUTHORITY within 30 days of the Property Transfer Inspection.

(B) The Report of Inspection must:

(1) Indicate the date the inspection was performed;

(2) Address the physical and operational condition of the ISDS and describe observed deficiencies and repairs completed, if any;

(3) Address and describe any observed noncompliance with the provisions of **Section 2-3** or any other provision of these Regulations; and

(4) For each SEPTIC TANK, HOLDING TANK, or other SEWAGE treatment or disposal unit on the property, indicate one of the following:

(a) That it was pumped by a LIQUID WASTE HAULER permitted in accordance with **Chapter 10**; or

(b) That pumping was not performed for one of the following reasons:

(i) The ISDS Operating Permit was issued and the ISDS was put into service within three (3) years before the Property Transfer Inspection;

(ii) Pumping or servicing was not necessary at the time of the inspection based on the SEPTIC TANK manufacturer's written operation and maintenance instructions; or

(iii) No accumulation of floating or settled waste was present in the SEPTIC TANK or SEWAGE treatment container.

(C) Items that do not comply with the following criteria and/or conditions must be reported to the HEALTH AUTHORITY and corrected along with necessary permits and inspections within 90 days of the sale, transfer, contract for deed, or other conveyance of land:

(1) The SEPTIC TANK must be structurally sound and in good working order and provided with safe and secure lids;

(2) All internal devices and appurtenances such as tees, EFFLUENT screens, and baffles that were originally provided with the SEPTIC TANK or added later must be intact and in working order;

(3) Alarms, control devices, and all other components necessary for the operation of the ISDS are present and in good working order;

(4) A SOIL ABSORPTION SYSTEM, or other means of subsurface wastewater treatment, must be present and not in a state of failure; and

(5) There are no unapproved wastewater discharges to or from the ISDS or from any structure.

(D) If the ISDS poses a HEALTH HAZARD, the property owner must take adequate measures as soon as practicable to abate the hazard.

~~Section 5~~
~~LOCATION OF INDIVIDUAL SEWAGE DISPOSAL SYSTEMS~~

~~5.1 No septic tank or soil absorption system shall be located within ten feet (10') of any property line or tree, or shall trees be planted within ten (10') of a soil absorption system or septic tank.~~

~~5.2 The horizontal separation from a shallow absorption system to the foundation of a building or structure shall be at least eight feet (8'), and twenty feet (20') from a deep absorption system, unless a Cone of Influence Letter is submitted by State of Nevada registered professional engineer.~~

~~5.3 Septic tank and shallow absorption system located within one hundred feet (100') nor shall a deep absorption system be located within one hundred and fifty feet (150') of any well.~~

~~5.4 See TABLE I for other separation requirements~~

~~TABLE I~~

~~Minimum Horizontal Separation Distance~~	~~Building Sewer Drain~~	~~Septic Tank~~	~~Shallow Soil Absorption System~~	~~Deep Absorption System~~
~~Building or Structure~~	~~3 ft~~	~~8 ft~~	~~8 ft~~	~~20 ft~~
~~Block Wall~~	~~3 ft~~	~~3 ft~~	~~3ft~~	~~3 ft~~
~~Retaining Wall~~	~~3 ft~~	~~8 ft~~	~~8 ft~~	~~20 ft~~
~~Property Line~~	~~10 ft~~	~~10 ft~~	~~10 ft~~	~~10 ft~~
~~Water Supply = Wells~~	~~50 ft~~	~~100 ft~~	~~100 ft~~	~~150 ft~~
~~Streams or Watercours~~	~~50 ft~~	~~100 ft~~	~~100 ft~~	~~150 ft~~
~~Soil Disposal~~	~~--~~	~~5 ft~~	~~5 ft~~	~~5 ft~~
~~Community Water Main Lines~~	~~10 ft~~	~~10 ft~~	~~25 ft~~	~~25 ft~~
~~Individual Water Service~~	~~6 ft~~	~~10 ft~~	~~25 ft~~	~~25 ft~~
~~Swimming Pool and Spa Water Lines and~~	~~3 ft~~	~~10 ft~~	~~25 ft~~	~~25 ft~~

Chapter 3 – Commercial Holding Tank Permits

(A) A PERSON must not construct, install, or use a HOLDING TANK without a valid HOLDING TANK Permit issued by the HEALTH AUTHORITY.

(B) The issuance of a HOLDING TANK Permit from the HEALTH AUTHORITY shall be in conformance with the most current Memorandum of Agreement signed with NDEP.

(C) A HOLDING TANK may not be used to service a residence, recreational vehicle, or any other structure having sleeping accommodations, except:

(1) On a construction site to serve a contractor's job shack or night watchman's trailer; and

(2) In emergency situations when it is necessary to prevent a potential HEALTH HAZARD.

(D) HOLDING TANK Permits shall be approved to receive and store DOMESTIC WASTEWATER only.

3-1 Holding Tank Permit Applications

(A) The property owner or the property owner's representative must apply to the HEALTH AUTHORITY for a HOLDING TANK Permit in a manner or form approved by the HEALTH AUTHORITY.

(B) A HOLDING TANK Permit application must include, without limitation:

(1) The recorded deed for the property on which the HOLDING TANK is proposed;

(2) A parcel map or subdivision map as recorded with the Clark County Recorder's Office;

(3) A letter from the applicant stating the reason for the request and the anticipated duration of use;

(4) Proof of an approved water source, which must be demonstrated by:

(a) A written water commitment from a PUBLIC WATER SYSTEM stating that the property will be served with water;

(b) A well driller's report and approval by the Nevada Division of Water Resources; or

(c) A proposal to haul water that meets the requirements of NAC 445A.67275-6731, inclusive, and is approved by the HEALTH AUTHORITY.

(5) Documentation from the COMMUNITY SEWERAGE SYSTEM with nearby sewer infrastructure stating whether the property meets its criteria to connect to the sewage system.

(6) A plot plan, which must include, without limitation:

(a) A map of the area in which the HOLDING will be located that shows the location of the roads and streets;

(b) The dimensions of the lot on which the ISDS will be located;

(c) The direction of north clearly indicated;

(d) The scale to which the plan is drawn (e.g., 1 inch = 30 feet);

(e) The proposed location of the HOLDING TANK on the property;

(f) The capacity of the HOLDING TANK; and

(g) The location of the structure that will be served by the HOLDING TANK; and

(7) Any other information requested by the HEALTH AUTHORITY.

3-2 Permanent Commercial Holding Tank Permits

(A) A property is eligible for a Permanent HOLDING TANK Permit when:

(1) The property cannot be approved for an ISDS Construction Permit;

(2) A COMMUNITY SEWERAGE SYSTEM is not available or expected to be available within five (5) years after the date of application for the HOLDING TANK Permit;

(3) The HOLDING TANK is:

(a) Intended to serve a county, state, or national park, or an occasional-use facility, including, without limitation, a county fair or rodeo; or

(b) Under the control of a city or other legal entity authorized to construct, operate, and maintain a COMMUNITY SEWERAGE SYSTEM;

(4) The projected daily SEWAGE flow is not more than 500 gallons, unless otherwise allowed by the HEALTH AUTHORITY;

(5) The horizontal separations defined in **Table 5-7** can be met; and

(6) Only DOMESTIC WASTEWATER will be discharged into the HOLDING TANK.

(B) In addition to all items specified in **Subsection 3-1(B)**, inclusive, the Permanent HOLDING TANK Permit application must include, without limitation:

(1) A plot plan, drawn to an engineer or architect's scale showing the proposed location of the holding tank (along with the tank capacity), modular/trailer or temporary structure, water meter, water lines, sewer lines with invert elevations, and parking area; and

(2) A floor plan showing all plumbing fixtures.

(C) A Permanent HOLDING TANK must:

(1) Have a minimum liquid capacity of 1,000 gallons;

(2) Be in conformance with the most current edition of the ASTM C913 Standard or an equivalent standard approved by the HEALTH AUTHORITY;

(3) Be equipped with an audible and visual alarm to indicate when tank is the 75% full or incorporate another method that is at least as protective of public health and is approved by the HEALTH AUTHORITY;

(4) Have no overflow vent at an elevation lower than the overflow level of the lowest fixture served; and

(5) Be designed for anti-buoyancy if test-hole examination or other observations indicate that seasonally high groundwater may float the tank when empty.

3-3 Temporary Portable Holding Tank Permits

(A) Portable HOLDING TANKS may be temporarily placed at the site of limited-duration events, including, without limitation, construction projects, when the following requirements are met:

(1) The HOLDING TANK must be owned and serviced by a LIQUID WASTE HAULER who has been issued a permit under **Chapter 10** of these Regulations;

(2) The HOLDING TANK must be used and maintained in a sanitary manner to prevent a HEALTH HAZARD or nuisance; and

(3) The tank must not be buried, unless approved by the HEALTH AUTHORITY.

(B) For the purposes of this Section, a limited-duration event does not include temporary mass gatherings, as defined by NAC 444.5478.

(C) A Temporary HOLDING TANK must:

(1) Have a liquid capacity of no more than 1,000 gallons unless approved by the HEALTH AUTHORITY;

(2) Be watertight and have no overflow vent lower than the overflow level of the lowest fixture served;

(3) Be structurally sound and made of durable, noncorrosive materials;

(4) Be designed and constructed to provide a secure, watertight connection with the sewer pipe for any building to which the tank is connected; and

(5) Be marked with the name and phone number of the LIQUID WASTE HAULER that has been issued a permit under **Chapter 10** of these Regulations and who is responsible for maintaining the HOLDING TANK.

Chapter 4 – Site Evaluation

4-1 General Requirements

(A) A complete Site Evaluation must be performed on each parcel of land on which an ISDS is proposed to determine the suitability of a location to support an ISDS and to provide a sound basis to select the most appropriate ISDS design for the location and proposed use.

(B) A report meeting the Site Evaluation criteria defined in **Section 4-2** must be submitted to the HEALTH AUTHORITY as part of an ISDS Construction Permit application.

4-2 Site Evaluation Criteria

(A) The Site Evaluation must include the following components:

(1) Surface characterization; and

(2) Subsurface investigation consisting of at least one soil boring, pit, or trench:

(a) For each proposed SOIL ABSORPTION SYSTEM;
(b) Drilled or dug on the same parcel as, but no more than 100 feet from, the proposed SOIL ABSORPTION SYSTEM; and
(c) Drilled or dug to a depth of at least four feet below the bottom of the proposed SOIL ABSORPTION SYSTEM.

(B) The Site Evaluation must be performed in accordance with one of the following codes or standards:
(1) The most recent edition of the *International Building Code*, including the Southern Nevada Amendments;
(2) The most recent versions of *ASTM D5879/D5879M Standard Practice for Surface Site Characterization for On-Site Septic Systems* and *ASTM D5921 Standard Practice for Subsurface Site Characterization of Test Pits for On-Site Septic Systems*; or
(3) An alternative method that meets all requirements of this Section and is approved by the HEALTH AUTHORITY.

(C) The Site Evaluation must be performed by a qualified PERSON from one of the following categories:
(1) A professional engineer registered in Nevada pursuant to NRS 625 and NAC 625;
(2) A geologist registered in Nevada pursuant to NRS 514;
(3) A Certified Professional Soil Scientist certified by the American Society of Agronomy;
(4) A PERSON with a certificate of training from a course recognized by the HEALTH AUTHORITY as sufficiently covering the information contained within one or more of the codes or standards specified in **Subsection 4-2(B)**; or
(5) A PERSON who qualifies under another category designated by the HEALTH AUTHORITY.

(D) The surface characterization must:
(1) Describe the surface slope and surface drainage characteristics at the proposed location of the ISDS;
(2) Identify areas of poor drainage such as depressions, and areas of complex slope patterns where slopes are dissected by gullies and ravines;
(3) Identify whether the property is in the 100-year flood hazard zone, as indicated on the applicable flood insurance rate map; and
(4) Identify man-made or engineered fill material deposits.

(E) The subsurface characterization must:
(1) Include a general texture and structure analysis to identify the classification of the soil;
(2) Include a gravel analysis to determine the percentage of gravel by volume and the size of the gravel;
(3) Identify the clay minerology of the clay-sized fraction to determine the degree to which the soil swells when wetted; and
(4) Assess the degree of caliche cementation if caliche soils are encountered.

(F) Data from percolation tests may be considered in the determination of the required SOIL ABSORPTION SYSTEM area if:
(1) Data is collected from a minimum of two test holes in the area of the proposed SOIL ABSORPTION SYSTEM;
(2) The tests are performed or supervised by a PERSON from one of the categories specified in **Subsection 4-2©** who certifies as to the correctness of the procedure and results;
(3) The tests are performed in accordance with current scientific and engineering knowledge and best practices; and
(4) A written report including detailed test results and a description of the test method and its source is provided to the HEALTH AUTHORITY.

(G) The Site Evaluation Report must indicate whether any of the following LIMITING CONDITIONS were encountered, and if so, must indicate the depth at which they were encountered:

(1) A condition that may cause or contribute to the surfacing of SEWAGE, including but not limited to:
    (a) An impermeable soil or rock layer;
    (b) A zone of saturation that substantially limits downward percolation from the SOIL ABSORPTION SYSTEM;
    (c) Soil with expansive clay soils that become extremely firm when moist and very sticky or plastic when wet (exhibiting firm or extremely firm consistence); or
    (d) Soil with more than 50 percent rock fragments.
(2) A condition that may promote the accelerated downward movement of insufficiently treated SEWAGE, including but not limited to:
    (a) Fractures or joints in rock that are open, continuous, or interconnected;
    (b) Karst voids or channels; or
    (c) Highly permeable materials such as deposits of cobbles or boulders; or
(3) The seasonal high-water table occurs within four feet of the bottom of the proposed SOIL ABSORPTION SYSTEM, as revealed by:
    (a) Encountering groundwater within soil trenches or borings;
    (b) The presence of one or more field indicators of saturation; or
    (c) As evidenced by well records or hydrologic reports.

4-3 Determination of Site Suitability

(A) The HEALTH AUTHORITY shall not issue an ISDS Construction Permit unless it determines that the SOIL ABSORPTION SYSTEM can be installed to meet the minimum performance requirements defined in **Section 5-1**.

4-3.01 Unsuitable Sites

(A) A site is unsuitable for construction of an ISDS:
    (1) If any of the LIMITING CONDITIONS defined in **Subsection 4-2(G)** are encountered;
    (2) If the surface slope in the area of the proposed ISDS is greater than 25%;
    (3) In areas of poor drainage such as depressions, and areas of complex slope patterns where slopes are dissected by gullies and ravines;
    (4) In areas within the 100-year flood hazard zone, as indicated on the applicable flood insurance rate map; and
    (5) In areas with engineered or man-made fill.
(B) The HEALTH AUTHORITY may require any or all the following, without limitation, to ensure that the proposed ISDS can be expected to function satisfactorily on an unsuitable site:
    (1) Additional site characterization;
    (2) Written documentation, including engineering, hydrogeologic, geologic, or soil studies;
    (3) Addition and/or substitution of suitable natural or engineered fill material;
    (4) Installation of an ALTERNATIVE TREATMENT SYSTEM; or
    (5) Additional oversight of installation.
(C) Engineered fill may be used only when the following conditions are met:
    (1) The soil conditions in the area of the proposed SOIL ABSORPTION SYSTEM are suitable for SEWAGE disposal purposes;
    (2) The surrounding naturally occurring soil can adequately absorb or disperse the expected volume of EFFLUENT without overflow, breakout, or detrimental effect on ground or surface water; and
    (3) The fill material meets the standards specified by the HEALTH AUTHORITY.

4-3.02 Lot Size Requirements

(A) The minimum lot size required for the construction or operation of an ISDS is:
    (1) One (1) acre when the water supply is from a well serving only that property.
    (2) One-half (0.5) acre when the property is served by a well permitted by NDWR or a PUBLIC WATER SYSTEM and the conveyance of the property was recorded with the Clark County Recorder's Office after the effective date of these Regulations.
    (3) One-quarter (0.25) acre when the property is served by a well permitted by NDWR or a PUBLIC WATER SYSTEM and the conveyance of the property was recorded with the Clark County Recorder's Office on or before the effective date of these Regulations.
(B) For the purposes of this Subsection, the lot size includes public streets, alleys, and other rights of way or easements, or any portion thereof abutting on, running though, or within a parcel.

4-3.03 Other Site Restrictions

(A) An ISDS must be constructed and remain on the same parcel as any structure it serves.
(B) An ISDS must not be constructed in an easement unless the easement is expressly for that purpose.

Section 6
SPECIFICATIONS FOR SEPTIC TANKS

6.1 Septic tanks shall have a minimum of two (2) compartments. The inlet compartment of any septic tank shall be not less than two-thirds (2/3) of the total capacity of the tank. See Figures 2 and 2A. When the septic is to be used for a de-nitrification system, the inlet compartment may be one-third (1/3) the total capacity of the tank if approved by the Health Authority.

6.2 All septic tanks, along with their manufacturers, must be approved by the Health Authority prior to installation. An approved septic tank manufacturer list may be requested from the Health Authority.

6.3 **Septic Tank Construction**. Septic tanks shall be watertight below the cover and shall be built so as to constitute a separate structure. They shall be constructed of materials resistant to decay, such as pre-cast concrete, and polyethylene. Other materials, equal in structural capability of withstanding all anticipated earth or other loads, may be approved by the Health Authority through a product review process.

6.3.1 Pre-cast concrete tanks shall have a minimum wall, floor and roof thickness of three inches (3"). The concrete shall have a minimum compressive strength of three thousand pounds per square inch (3,000 psi). The concrete shall be produced in accordance with the practices outlined in the American Concrete Institute Standards 301 and 318. Precast sections shall be set evenly in a full bed of sealing mortar or equivalent. Excessively mortared joints shall be sealed with bituminous sealing compound.

6.4 Type 5, sulfate resistant cement shall be used for all concrete mixes.

6.5 Each tank shall be clearly marked to show capacity, name and address of the registered trademark of the manufacturer.

6.6 Backfilling, after inspection and approval from the Health Authority, shall be carefully done to prevent damage to the septic tank. Before backfilling, each septic tank shall be adequately supported and may be required to be filled with water 24 hours prior to inspection to determine that it is watertight. The septic tank shall be level after setting.

6.7 All pre-fabricated tanks shall be watertight.

6.8 Septic tank capacity and design. The liquid capacity of a septic tank shall be determined by the number of persons using the building to be served or upon the nature of use and type of waste as determined from Table III, whichever is greater. The minimum liquid capacity of a septic tank measured below the outlet shall be one thousand (1,000) gallons for any installation. The liquid depth shall not be less than thirty inches (30") or more than five feet (5'). The air space shall be at least nine inches (9") or 20% of the liquid depth.

6.9 **Septic Tank Dimensions:**

6.9.1 Rectangular septic tanks shall have a minimum width of thirty inches (30") and shall be constructed with the longest dimensions parallel to the direction of flow.

6.9.2 When increased capacity is to be provided by using a number of prefabricated tanks, the minimum capacity of any unit shall be one thousand (1,000) gallons.

6.9.3 When two (2) or more tanks are installed in series, the baffle for the first tank is removed. The volume first tank will contribute to the second tank's first compartment. The combination of the first tank capacity and the volume first compartment for the second tank must equal 2/3 the septic tank waste.

6.10 **Estimated Waste / Sewage Flow Rates; Recommended Design Criteria; Quantity of Sewage Flow per Fixture; Septic Tank Capacities** (see TABLE II, TABLE III, and TABLE IV, respectively).

TABLE II

ESTIMATED WASTE / SEWAGE FLOW RATES

Type of Occupancy	Unit Gallons Per Day
Airports	15 per employee 5 per passenger
Auto washers	Check with equipment manufacturer
Bowling alleys (snack bar only)	75 per lane
Camps: Campground with central comfort station Campground with flush toilets, no showers Day Camps (no meals served) Summer and Seasonal	 35 per person 35 per person 15 per person 50 per person
Churches (Sanctuary) with kitchen waste	5 per seat 7 per seat
Dance Halls	5 per person
Factories No showers With showers Cafeteria, add	 25 per person 35 per employee 5 per employee
Hospitals Kitchen waste only Laundry waste only	250 per bed 25 per bed 40 per bed
Hotels (no kitchen waste)	60 per bed (2 person)
Institutions (Resident) Nursing Home Rest Home	75 per person 125 per person 125 per person
Laundries , self-service (minimum 10 hours per day)	50 per wash cycle Per manufacturer's specifications
Motel With Kitchen	50 per bed space 60 per

Offices	20 per employee
Golf Course [(18 holes x # of shifts x 4 people per round)] / 2 x 10 gallons per day per golfer	10 per golfer
Restaurants = Cafeterias Toilet Kitchen waste Add for garbage disposal Add for cocktail lounge Kitchen waste – disposal service	20 per employee 7 per employee 6 per meal 1 per meal 2 per customer 2 per meal
Schools = Staff and Office Elementary students Intermediate and high with gym and showers, add with cafeteria, add Service Station, toilets	20 per person 15 per person 20 per person 5 per student 3 per student 100 per person 1000 for 1st bay 500 for each and additional bay
Stores Public restrooms, add	20 per employee 0.1 per square feet of floor space
Swimming Pools, public	10 per person
Theaters, Auditoriums Drive-In	5 per seat 10 per person

RECOMMENDED DESIGN CRITERIA. Sewage disposal systems sized using the estimated waste/sewage flow rates should be calculated as follows:

1) Waste/sewage flow, up to 1,500 gallons/day
   Flow x 1.5 = septic tank size

2) Waste/sewage flow, over 1,500 gallons/day
   Flow x 0.75 + 1125 = septic tank size

3) Secondary system shall be sized for total flow per 24 hours

TABLE III

Quantity of Sewage Flow per Fixture

Kind of Fixture	Private Use	Public Use
Bar Sink	1	2
Bathtubs (with or without shower over)	2	4
Bidets	2	2
Dental units or cuspidors		1
Drinking Fountains (each head)	1	2
Floor Drains	2	2
Interceptors for grease, oil, solids, etc	3	3
Interceptors of sand, auto wash, etc		6
Laundry tubs	1	2
Clothes washers	2	4
Receptors (floor sinks) indirect waste receptors for refrigerators, coffee urns, water stations, etc	1	1
Receptors indirect waste receptors for commercial sinks, dishwashers, air washers		3
Showers (each head)	2	4
Sinks, commercial or industrial, schools, etc (including dishwashers, wash-up sinks, and wash fountains, 2" min		4
Sinks, flushing rim, clinic		10
Sinks, and/or dishwashers (residential, 2" min waste)	2	
Sinks, service	3	3
Trailer Park Traps (one for each trailer)	6	6
Urinals, pedestal	2	10
Urinals, stall	2	5
Urinals, wall (2" min waste)	2	5
Wash basins (lavatories) single	1	1
Wash basins (lavatories) double	2	2
Water closets (flush tanks) Low water consumption water closet	4 2*	5
Water closets (flushometer valve)	6	10

* NOTE: The total fixture count on existing permits may be reduced for low water consumption fixtures. Reductions will be determined by the Health Authority on a case-by-case basis, depending on the type of fixture to be used and the nature of the use.

TABLE IV
SEPTIC TANK CAPACITIES

Maximum Fixture Units Served	Minimum Septic Tank Capacity in Gallons
20	1000
25	1200
35	1500
45	2000
55	2250
60	2500
70	2750
80	3000
90	3250
100	3500

Fixture units over 100 – 25 gallons per fixture unit.

NOTE: Septic tank sizes in this table include sludge storage capacity and the connection of domestic food waste disposal units and dishwashers without further volume increase.

6.11 Inlets and Outlets Tees; Baffles

6.11.1 The inlet and outlet of septic tanks or tank compartments shall be provided with open-end schedule forty (40) polyvinyl chloride (PVC) sanitary tees or equivalent or baffles made of approved materials, so constructed as to distribute flow and retain scum in tank or compartments. The tees or baffles shall extend at least six inches (6") above the liquid level. The inlet device shall penetrate at least six inches (6") but not more than the outlet device. The outlet tee or baffle shall extend to a distance below the surface equal to forty percent (40%) of the liquid depth, and thirty-six percent (36%) for horizontal cylindrical tanks. The inlet and the outlet arrangements shall provide for free flow of air between inlet and outlet. At least two inches (2") of clear space shall be provided over the top baffle or tees. The invert of the outlet pipe shall be at least three inches (3") lower than the invert of the inlet pipe.

6.11.2 The inlet and outlet pipes between a septic tank and firm ground beyond the excavation made to install the tank shall be schedule forty (40) PVC or other pipe approved by the District for this specific purpose. The joint between the pipe and tank shall be made watertight.

6.11.3 The inlet and outlet openings of all tanks shall contain a "boss," stop or other provision to which will prevent the insertion of the sewer piping beyond the inside tank wall facing.

6.12 Manholes

Access to each septic tank shall be provided by at least two (2) manholes, with a minimum dimension of twenty inches (20") square or twenty inches (20") in diameter at the top. Manholes shall extend to within at least twelve inches (12") of the ground surface and provided with substantial concrete, steel, stone, fiberglass or cast iron covers. On steel tanks, the collar for manhole extensions shall be at least two inches (2") high.

~~Section 7~~
~~MAINTENANCE AND SLUDGE DISPOSAL~~

~~7.1 Septic tanks shall be cleaned whenever the sludge and scum occupies one-third (1/3) of the tank volume.~~

~~7.2 Sludge and scum from septic tanks and any other material removed from a sewage disposal unit, all hereafter referred to as sludge, shall be pumped by a liquid waste hauler approved by the Health Authority and disposed of at an approved disposal facility in such a manner as not to create a nuisance or menace to public health. Unless otherwise authorized by the Health Authority, the sludge shall be disposed of as follows:~~

~~7.2.1 By discharge into a public sewerage system when practical. The point and method of discharge into the system shall be subject to the requirements of the municipality.~~

~~7.2.2 By discharge at a disposal site designated by a city or political subdivision for such purpose.~~

~~7.3 Sludge shall not be disposed of by discharge into a lake, stream, ditch or dry run or be deposited within one hundred feet (100') of such watercourses.~~

Section 8
DISTRIBUTION BOX

8.1 A distribution box shall be used for all systems (commercial and residential) greater than two thousand (2,000) gallons or a system utilizing an odd number of chamber rows, leach lines or trenches. Distribution boxes shall also be used when split soil absorption systems are installed.

8.2 Each distribution line or chamber row shall be connected separately to the distribution box. The outlet lines shall be set at the same level and four inches to six inches (4" to 6") above the bottom of the box. The inlet shall be at least one inch (1") above the outlet.

8.3 The size of the distribution box shall be sufficient to accommodate the required number of distribution lines. The box shall be of watertight construction.

8.4 The distribution box shall be installed on cast-in-place or on a pre-cast concrete pad that extends three inches (3") beyond its edge, or on compacted soil. The distribution box must be level and steady. Precautions must be taken during backfilling, after inspection and approval from the Health Authority, to prevent shifting of the distribution box.

Section 9
EFFLUENT DISPOSAL

9.1 **Location and Method.** The effluent from septic tanks shall be disposed of by a soil absorption system or by some other manner approved by the Health Authority provided such disposal does not create a nuisance or hazard to public health.

9.1.1 All soil absorption disposal units should be located at a point lower than the grade of any nearby water well, unless permission is obtained from the Health Authority.

9.1.2 The horizontal separation from a shallow absorption system to the foundation of a building or structure shall be at least eight feet (8'), and twenty feet (20') from a deep absorption system.

9.1.3 Effluent disposal fields shall not be located within one hundred feet (100') nor shall a deep absorption system be located within one hundred and fifty feet (150') of any well or watercourse.

9.1.4 Wells should be above the elevation of the septic system, as determined from the contour elevations.

9.1.5 Effluent disposal systems shall not be permitted in areas subject to flooding.

9.1.6 The size of the soil absorption system to be used for effluent disposal shall be determined through percolation tests made in accordance with **Section 15** of these Regulations.

9.2 **Pipe and Gravel Leach Fields**. The following design and construction procedures providing for gravel fill, and adequate distribution system and protection of the absorption area shall be observed (See Figure 4):

9.2.1 The bed shall have a minimum depth of thirty-six inches (36") below natural ground level to provide minimum earth backfill of twelve inches (12").

9.2.2 The bed should have a minimum of twenty-four inches (24") of gravel. The piping shall be laid on a minimum of eighteen inches (18") of gravel and shall be surrounded by the aggregate which shall extend at least two inches (2") above the top of the pipe.

9.2.3 The bottom of the bed and distribution pipe or perforated pipe shall be level or two inches per hundred feet (2"/100') maximum slope.

9.2.4 Lines for distributing effluent shall be spaced a minimum of six feet (6') apart and a minimum of three feet (3') from bed sidewall. The maximum length of lines distributing effluent shall be one hundred (100') feet.

9.2.5 Only straight tees are allowed for distribution piping in the leach field. Sanitary, sweeping and directional tees are prohibited.

9.2.6 Clean graded rock, gravel or similar aggregate ranging in size from one-half inch

(1/2") to two and one-half inches (2-1/2") shall be laid in the bed.

9.2.7 Distribution piping shall be perforated. The holes of the perforated pipe shall be pointed downwards.

9.2.8 The top of the aggregate shall be covered with untreated building paper or a two inch (2") layer of hay or straw to prevent the stone from becoming clogged by the earth backfill.

9.2.9 If the backfill cover over the aggregate exceeds three feet (3'), then aeration risers will be required (See Figure 11). If the horizontal separation of the deep absorption field is within twenty feet (20') or a shallow absorption field is within eight (8) feet of the foundation of a structure, building or retaining wall, a Cone of Influence Letter will be required.

9.3 **Chamber System Leach Fields.** Chamber system leach fields shall be gravel less. Leaching chambers allow for more of the soil profile to be used since the septic tank effluent is distributed to the ground below and the soil surrounding the chamber. Hence, the disposal area shall be thirty percent (30%) less than the area required for pipe and gravel disposal fields. All leaching chambers, along with their manufacturers, must be approved by the Health Authority prior to their installation. A list of approved leaching chambers and their manufacturers may be requested from the Health Authority.

9.3.1 The excavation in which leaching chambers are placed shall be level.

9.3.2 Leaching chambers shall be installed and connected based on the manufacturer's installation guidelines. This includes, without limitation, the feeder line connections and end caps.

9.3.3 Leaching chambers from different manufacturers shall not be used in combination.

9.3.4 The distribution header line or manifold shall be level and made of solid PVC piping, or other piping approved by the Health Authority.

9.3.5 The effluent line from the septic tank shall bisect the distribution header line or manifold in the middle, except when utilizing a distribution box. A chamber

system utilizing a distribution box must have outlet pipes from the distribution box connected directly to each chamber row.

9.3.6 Leaching chamber rows shall be equal in length and shall not exceed one hundred (100') feet. A distribution box shall be required for any configuration utilizing an odd number of chamber rows.

9.3.7 If more than one leaching chamber field is being installed, each field shall have an equal number of leaching chambers with a distribution box splitting the effluent flow between the fields. There shall be a minimum of five (5') feet separation between the leach fields.

9.3.8 There shall be no lateral spacing between individual chamber rows.

9.3.9 There shall be a minimum of one foot (1') of native backfill cover over of the leaching chambers.

9.3.10 If the backfill cover over the leaching chambers exceeds three feet (3'), then aeration risers shall be required (See Figure 11). If the horizontal separation of the deep absorption field is within twenty feet (20') or eight (8') feet for a shallow absorption field **or** within eight (8') feet of the foundation of a structure, building or retaining wall, a Cone of Influence Letter shall be required.

9.4 **Seepage Pits.** Seepage pits should be used when deeper soil formations are more porous than the upper soil. The seepage pits shall consist of a chamber, walled up with materials which allow water to percolate through it, such as a joint brick, concrete block, dry rubble or an approved equal. (See Figure 6)

9.4.1 The seepage pit must be designed by a State of Nevada registered professional engineer.

9.4.2 The capacity of the seepage pit shall be computed on the basis of percolation tests made in each vertical stratum penetrated. No allowance shall be made for impervious strata or bottom area.

9.4.3 The seepage pit bottom shall be left open to the soil.

9.4.4 Pits shall be backfilled with clean ½" to 2 ½" gravel to a depth of one foot (1') above the pit bottom.

9.4.5 The diameter of a pit shall not be less than five feet (5').

9.4.6 The annular space between the outside of the lining and the pit wall shall be a minimum of twelve inches (12").

9.4.7 The annular space shall be filled with coarse aggregate, one half inch (1/2") to one inch (1") in size to the top of the pit.

9.4.8 Seepage pits shall not extend into creviced rock formation and shall terminate at least five feet (5') above the maximum seasonal water table.

9.4.9 Each seepage pit shall be provided with a watertight cover equipped with a manhole and fresh air inlet.

9.4.10 The seepage pit shall not be deeper than its width.

9.5 **Subsurface Drip Disposal Systems (SDD).** This system uses small diameter (usually ½") piping with underground emitters, which are preceded by a treatment system, approved by the Health Authority that conforms to the manufacturer's specifications for that system. Subsurface drip disposal systems are often used for sites with adverse conditions such as insufficient depth to a restrictive horizon, groundwater, and steep slopes.

9.5.1 The effluent shall be adequately filtered before distribution through the underground emitter system.

9.5.2 All subsurface drip disposal systems shall be designed and all plans submitted, signed and sealed by a State of Nevada registered professional engineer.

9.5.3 A contract with a Heath Authority approved maintenance provider is required for the life of all subsurface drip disposal systems.

9.5.4 The subsurface drip disposal system shall be installed and maintained by the manufacturer or his designee.

9.5.5 To insure equal dosing of the drip disposal field, there shall be no more than a ten percent (10%) variation in the flow between any two emitters in the entire drip disposal field.

9.5.6 The primary treatment facility and dosing chamber shall be designed, constructed and installed to insure that all joints, seams, and component parts shall preclude infiltration of groundwater and the release of wastewater or liquids.

9.5.7 All electrical equipment shall be protected with safety devices (ground fault circuit interrupters, fuses, etc). All electrical equipment shall comply with appropriate National Electrical Manufacturer's Association (NEMA) requirements. Electrical components shall be covered by a manufacturer's limited warranty.

9.5.8 Valves, fittings and level control switches and all other components shall be designed and manufactured to resist the corrosive effects of wastewater and common household chemicals.

9.5.9 Prior to the design of the subsurface drip disposal system, the suitability of the site must be demonstrated through acceptable soil percolation tests and other topographical characteristics. The design and construction of the surface drip disposal system shall conform to the manufacturer's specification and to all criteria outlined in these Regulations.

9.5.10 Dosing Tanks for Subsurface Drip Disposal Systems.

9.5.10.1 The dosing tank shall have grade level access large enough to allow servicing and/or removal of the largest component in the chamber. All access ports shall be protected against unauthorized entrance or removal.

9.5.10.2 The dosing tank shall be made of material that is watertight, resistant to the corrosive effects of wastewater, and designed to withstand the lateral and bearing loads to which it is expected to be subjected.

9.5.11 Minimum Pump Specifications for Subsurface Drip Disposal Systems.

9.5.11.1 Only timed dosing subsurface drip disposal systems shall be permitted.

9.5.11.2 The pumping system shall be capable of dosing the drip field a minimum of six (6) equally spaced doses per twenty-four hour (24 hour) period. Each dose volume shall not exceed the estimated maximum daily flow divided by the number of dosing cycles.

9.5.11.3 The pump system shall be designed to discharge the required volume of wastewater within the pressure range specified by the tubing manufacturer.

9.5.11.4 The pump shall be equipped with a low water cutoff to prevent damage to pump during low water conditions in the dosing chamber.

9.5.11.5 The pump shall be constructed with corrosive resistant materials suitable for effluent pumping.

9.5.11.6 The pump shall be sized based on the manufacturer's specifications to meet or exceed the hydraulic requirement of the system. The pump shall also be installed in compliance with manufacturer's specifications so as not to violate the pump warranty.

9.5.11.7 The suction pressure lines shall be PVC schedule 40 or equal and sized to meet or exceed the hydraulic requirements of the system.

9.5.12 Minimum Filter Requirements for Subsurface Drip Disposal Systems.

9.5.12.1 The effluent shall be filtered to the specifications of the drip disposal manufacturer to prevent clogging of the emitters.

9.5.12.2 The filter shall achieve the required filtration rate at a rate equal to or greater than the peak discharge rate, including filter and/or system backwash, from either the treatment facility or pump, where applicable.

9.5.12.3 The filter shall be made of material resistant to the corrosive effects of wastewater and common household chemicals.

9.5.12.4 The filters shall be readily accessible for inspection and/or service.

9.5.12.5 The filter flush volume and velocity shall be based on the manufacturer's specifications.

9.5.12.6 The filter residue shall be returned to the treatment facility.

9.5.13 Minimum Specifications for Subsurface Drip Disposal Fields

9.5.13.1 Drip disposal lines shall be installed in the "A" horizon six to eight inches (6" – 8") deep. The maximum depth shall not exceed eighteen inches (18"). In all cases, there shall be a minimum of twelve inches (12") separation between the water table and the restrictive horizon.

9.5.13.2 The drip lines may be installed using any of the following methods:

9.5.13.2.1 Installed in a trench excavated by a trenching machine.

9.5.13.2.2 Installed using an approved plowing method. The insertion tool must be of the type that does not pull or stretch the drip line during insertion. The use of "cable plows" or any type insertion method that employs pulling the drip line through the plowed trench is prohibited.

9.5.13.3 A subsurface drip disposal system shall contain, if necessary, pressure compensating devices or regulators to insure equal distribution from all emitters at +/- 10 % of the designed discharge rate.

9.5.13.4 The drip lines shall be on contour and shall not be installed perpendicular (or up and down, etc) to the slope. The difference in a drip line or the entire grid shall not exceed the manufacturer's specifications.

9.5.13.5 The length of each distribution line shall not exceed one hundred feet (100').

9.5.13.6 Vacuum breakers shall be installed based on the manufacturer's specification, a minimum of one vacuum breaker / air release valve for each drip field zone.

9.5.13.7 All materials shall meet applicable American Society for Testing and Materials (ASTM) standards and be resistant to common manufacturer as designed and manufactured for the disposal of wastewater. **The drip line tubing must be color coded, by the manufacturer, to be easily identified as tubing designed for wastewater disposal.**

9.5.13.8 The separation between emitter line laterals shall be a minimum of two feet (2').

9.5.13.9 Lateral spacing of three feet (3') or more should be used for slopes 20% or greater.

9.5.13.10 Drip disposal tubing shall be either four inches (4") lower than the supply manifolds or water breaks shall be used to prevent effluent from flowing from drip trenches to the supply manifold trenches.

9.5.13.11 Vacuum breaker shall be located in a protective enclosure that will prevent the accumulation of any substance that would prevent their proper operation and shall have a grade level access.

9.5.13.12 Equipment susceptible to freezing must be adequately protected to prevent freezing.

9.5.13.13 A system must be provided for the flushing of distribution lines to prevent the build-up of solids in the distribution system, with its discharge returning to the treatment facility. The system shall be capable of achieving a flushing velocity of a minimum of two feet per second (2 ft /s). The return line must be permanently installed as a component of the system. **A hose bib shall be prohibited as a component part of the drip disposal system**.

9.5.14 Placement of Subsurface Drip Disposal System.

9.5.14.1 All components of the drip disposal system shall be located a minimum of:

9.5.14.1.1 Eight feet (8') from the foundation of any building, structure or retaining wall.

9.5.14.1.2 Ten feet (10') from any property line.

9.5.14.1.3 Twenty-five feet (25') from any water supply line and water circulation lines of a swimming pool or spa and pool equipment.

9.5.14.2 The aerobic treatment unit, pump chamber, and drip disposal field shall be located a minimum of one hundred feet (100') from any well or watercourse.

9.5.14.3 Where a water supply line must cross over a sewer line, the bottom of the water service within ten feet (10') of the point of crossing shall be at least eighteen inches (18") above the top of the sewer line.

9.5.14.4 The drip disposal field shall not be located in an area subject to vehicular access or traffic, or any area to be paved.

9.5.14.5 There shall be a ten feet (10') minimum horizontal separation between any tree and the drip disposal field, aerobic treatment unit or dosing chamber.

9.6 **Mound System.** Also known as the "Wisconsin Mound," disposal is characterized by an above-grade infiltration bed system that blends with the land surface into which is dispensed pressure dosed wastewater from a septic tank or an alternative treatment system. Mound systems are usually installed in areas with high groundwater tables, slow or fast permeability soils, and shallow cover over creviced or porous bedrock.

9.6.1 Design of Mound System.

9.6.1.1 All mound systems shall be designed and all plans submitted, signed and sealed by a State of Nevada registered professional engineer. The design shall generally be based on the most current edition of the "Wisconsin Mound Soil Absorption System: Siting, Design and Construction Manual," published by the University of Wisconsin – Madison Small-Scale Waste Management Projects, with the following inclusions:

9.6.1.2 The mound system may be built over natural existing soil with a percolation rate between three (3) to sixty (60) minutes per inch provided:

9.6.1.3 The minimum separation distance between the anticipated maximum groundwater table and the natural ground surface shall be twelve (12") inches.

9.6.1.4 A minimum of one foot (1') of mound fill and one foot (1') of natural soil percolating between three (3) to sixty (60) minutes per inch is available to form the minimum two feet (2') of unsaturated soil below the bottom of the absorption system.

9.6.1.5 At least thirty-six inches (36") of suitable soil percolating between three (3) to sixty (60) minutes per inch is available between bedrock and impervious strata and the native ground surface.

9.6.1.6 Effluent shall be applied to the inlet surface of the mound media at not more than one (1) gallon per day per square foot of mound bed inlet surface if the mound bed media conforms with the "Standard Specification for Concrete Aggregates, C33-03," published by the American Society for Testing Materials and the Wisconsin Mound manual, except if cinder sand is used that is the appropriate grade with not more than five percent (5%) passing a #200 screen.

9.6.1.7 The top and bottom surfaces of the aggregate infiltration bed shall be level and shall not exceed ten feet (10') in width.

9.6.1.8 The minimum depth of the aggregate infiltration bed shall be nine inches (9").

9.6.1.9 The minimum thickness of aggregate media around the distribution pipes of the absorption system shall be equal to:
= six inches (6") below the distribution pipe + the diameter of the distribution pipe + two inches above the distribution pipe **or** ten inches (10"), whichever is greater.

9.6.1.10 The synthetic fiber placed on the top surface of the aggregate infiltration bed shall be permeable to water and air and capable of supporting the cap and topsoil load.

9.6.1.11 The slope of the native ground surface shall not exceed twenty-five percent (25%) for the installation of a mound system.

9.6.1.12 The aggregate infiltration bed and mound bed shall be capped by coarser textured soil, such as sand, sandy loam or silt loam. Clay or clay loam is prohibited.

9.6.1.13 Ports shall be included for inspection and monitoring to verify performance, including verification of unsaturated flow within the aggregate infiltration bed by:

9.6.1.13.1 Installing a vertical PVC pipe with a minimum diameter of four inches (4") as an inspection port at the end of the disposal line, and

9.6.1.13.2 Installing the pipe with physical restraint to maintain the pipe position.

9.6.1.14 The main pressurized line and secondary distribution lines for the aggregate infiltration bed shall be equipped at appropriate locations with cleanouts to grade.

9.6.1.15 The top soil shall be graded to drain surface water from the system and adjoining area.

9.6.1.16 Setback shall be increased for the following down slope features to thirty feet (30') from the toe of the mound system:

9.6.1.16.1 Property line.
9.6.1.16.2 Driveway.
9.6.1.16.3 Foundation of building or structure.

9.6.1.16.4 Ditch or interceptor drain, or any feature that impedes water movement away from the mound.

9.6.2 Installation and Construction Details.

9.6.2.1 The site shall be cleared of vegetation and trees cut down in the vicinity of the basal area site to within two (2) inches of the surface. Leave bounders and tree stumps and other herbaceous material that would excessively alter the soil structure if removed after the site is cleared. The native soil serving the basal area footprint shall be plowed along contours to a seven to eight inch (7" – 8") depth. Begin construction immediately after plowing.

9.6.2.2 Each layer of the system shall be placed to prevent differential settling and promote uniform density.

9.6.3 **Maintenance Provider.** A contract with a Heath Authority approved maintenance provider is required for the life of all mound systems.

9.7 Absorption Trenches

9.7.1 The bottom of the trench shall be laid level at a minimum depth of thirty-six inches (36") below ground level. The width of the trench shall be a minimum of eighteen inches (18") to a maximum of thirty-six inches (36"). Trenches shall be spaced in accordance with the following formula: the minimum spacing between trenches, measured from sidewall to sidewall = 2 x total depth (distance from finished grade to bottom of excavation).

9.7.2 Trenches shall not be excavated when the soil is wet enough to smear or compact easily.

9.7.3 Trench bottom and sidewall areas damaged or compacted during excavation shall be raked to a depth of one inch (1") and loose material removed before gravel is placed in the trench.

9.7.4 Distribution piping shall be four inches (4") minimum diameter and PVC.

9.7.5 The distribution pipe shall be surrounded by clean graded gravel or rock ranging in size from one-half inch (1/2") to two and one-half inches (2-1/2"). The aggregate shall extend from at least two inches (2") above the top of the pipe to at least eighteen inches (18") but not more than seventy-two (72") below the bottom of the pipe.

9.7.6 The top of the aggregate shall be covered with untreated building paper, a two inch (2") layer of hay / straw to prevent the stone from becoming clogged by the earth backfill.

9.7.7 The length of pipe lines and individual trenches shall not exceed one hundred feet (100').

9.7.8 Aeration risers (see Figure 11) shall be required if the backfill cover over the distribution pipes exceeds three feet (3').

9.7.9 Trench beds with multiple trench lines shall be equal in length.

9.8 **Aerobic Treatment Unit (ATU).** An aerobic treatment unit is used when enhanced biological processing is needed to treat wastewater with high organic content, when soil or site condition are not adequate for installation of a standard septic system, or when highly treated wastewater amenable to disinfection is needed.

9.8.1 Certification. All aerobic treatment units must be certified by the National Sanitation Foundation (NSF) Standard 40, Class I, or authorized by the Nevada Department of Environmental Protection (NDEP) or the State Health Authority.

9.8.2 Design of Aerobic Treatment Unit

9.8.2.1 ATUs shall only treat influent, which have a 100 mg/L to 300 mg/L total organic compounds, and 100 mg/L to 350 mg/L total suspended solids (TSS), unless certification provided by the manufacturer is approved by the Health Authority.

9.8.2.2 The wastewater shall be delivered to the aerobic treatment unit by gravity flow either directly or by a lift pump.

9.8.2.3 The ATU shall be constructed of non-corrosive materials.

9.8.2.4 Mechanical and electrical components shall either be waterproofed and/or protected from the elements

9.8.2.5 Air diffusers shall be constructed of PVC or other approved materials.

9.8.2.6 A clarifier shall be provided after aeration.

9.8.2.7 An interceptor or other pretreatment device shall be incorporated, if necessary, or if recommended by the manufacturer for pretreatment.

9.8.2.8 Ports for inspection and monitoring shall be provided to verify performance.

9.8.2.9 The ATU shall be equipped with an audio and visual alarm to warn of compressor failure / aerator failure and high groundwater.

9.8.3 Installation requirements for Aerobic Treatment Units.

9.8.3.1 Installation of the aerobic treatment components shall conform to manufacturer's specifications.

9.8.3.2 The excavation, foundation, and backfill placement shall be performed to prevent differential settling and adverse drainage conditions.

9.8.4 Operation and Maintenance.

9.8.4.1 A contract with a maintenance provider approved by the Health Authority is required for the life of all aerobic treatment units.

9.9 **Absorption Area.** The absorption area required for seepage pit, pipe and gravel leach field, and absorption trenches shall be determined from Table V using soil percolation test data.

TABLE V

Minimum Liquid Capacity of Septic Tank (in Gallons)	Required Absorption Bottom Area for Seepage Beds (Pipe and Gravel Leach Field) or Sidewall Area for Seepage Pits and Trenches (in Square Feet)							
1000	350	400	450	635	775	1100	1345	1550
1200	420	480	540	760	935	1315	1610	1860
1500	520	600	710	350	1165	1645	2015	2325
2000	700	800	900	1272	1550	2200	2690	3100
2250	788	900	1013	1429	1744	2475	3075	3488
2500	875	1000	1125	1588	1940	2750	3363	3875
2750	963	1100	1238	1747	2132	3025	3699	4263
3000	1050	1200	1350	1905	2325	3300	4035	4650
3250	1138	1300	1463	2064	2519	3575	4371	5038
3500	1225	1400	1575	2223	2713	3850	4708	5425
Percolation Rate Time in Minutes for Water to Fall One Inch	3 (c)	4	5	10	15	30 (a)	45 (a)	60 (a) & (b)

NOTE: Reduce absorption field area by thirty percent (30%) when using leaching chambers

a) Unsuitable for seepage pits if over thirty (30)
b) Soils with a percolation rate over sixty (60) minutes per inch shall not be used for absorption systems
c) A minimum percolation rate of three (3) minutes per inch shall be used to calculate absorption area requirements.

9.9.1 **Dosing Tanks.** When the quantity of septic tank effluent to be discharged into the soil absorption system exceeds the amount that can be disposed of through five hundred (500) lineal feet of pipe, a dosing tank, equipped with an automatic siphon, shall have a capacity equal to combined volume of the pipe lateral exceeds one thousand feet (1,000'), the dosage tank shall be provided with two (2) automatic siphons dosing alternately and each serving one-half (1/2) of the pipe field.

NOTE: Each foot of four-inch (4") pipe has a capacity of 0.652 gallons; five-inch (5") pipe, 1.02 gallons; six-inch (6") pipe 1.46 gallons; seven-inch (7") pipe, 2.012 gallons; eight-inch (8") pipe, 2.599 gallons; 10-inch (10") pipe, 4.0195 gallons; 12-inch (12") pipe, 5.875 gallons. The amount of pipe required is governed by the lay of the land and character of the soil. This is important and must receive careful attention. The drainage surface of the ground and in cases where it is necessary to lay the pipe deeper than three feet (3'), an adequate system of ventilation should be provided.

9.10 **Sand Layer Requirement.**

9.10.1 If the soil percolation rate is less than one (1) minute per inch, a sand layer shall be required. The sizing of the absorption field shall be the minimum absorption field area that corresponds to three (3) minutes per inch percolation rate.

9.10.2 The geo-textile fabric shall be "Mirafi" (140 NC) or equal N-series non-woven polypropylene for soil separation, filtration and protection. The sand layer shall utilize fine sand or loamy sand with the following gradation and requirements:

Sieve Size	Percentage by Weight Passing
3/8"	100%
No. 4	80% - 100%
No. 200	0% - 5%

9.10.3 The plasticity index shall not exceed nine (9). The soluble sulfate content shall not exceed 0.3% by dry weight of soil. The uniformity coefficient shall be less than four (4). The infiltration rate shall be between 1.5 gpd /sf and 2.5 gpd / sf. A sieve analysis of the sand to be used for the sand layer shall be submitted for approval to the Health Authority prior to the sand layer inspection.

9.10.4 The sand layer shall be a minimum of twenty-four (24") inches below the absorption field.

9.10.5 Sand Layer with Chamber Leach Field (see Figure 10):

9.10.5.1 There shall be at least two (2) inspections by the Health Authority:

~~**First Inspection**: Inspection of the excavation below subsequent placement of leaching chambers, with the bottom of the excavation exposed to verify that bedrock is fractured to a minimum depth of two feet (2') below the bottom of proposed leaching chambers, and that the bottom of the excavation is lined with the geo-textile fabric.~~

~~**Second Inspection**: Inspection to verify that a sand layer at a minimum of twenty four inches (24") is overlying geo-textile fabric and that the fabric extends at least six inches (6") vertically above top of sand layer. The chamber leach field and septic tank installed shall be inspected to determine if it is in compliance with these Regulations.~~

~~9.10.5.2 Sand Layer with a Pipe and Gravel Leach Field (See Figure 10A): There shall be at least two (2) inspections by the Health Authority:~~

~~**First Inspection**: Inspection of the excavation below the subsequent placement of coarse gravel (½" to 2 ½"), with the bottom of the excavation exposed to verify that bedrock is fractured to a minimum depth of two feet (2') below the bottom of the proposed pipe and gravel leach field, and that the bottom of the excavation is lined with the geo-textile fabric.~~

~~**Second Inspection**: Inspection to verify that a sand layer at a minimum of twenty four inches (24") is overlying geo-textile fabric and that the fabric extends at least six inches (6") vertically above top of sand layer. The pipe and gravel leach field and septic tank installed shall be inspected to determine if it is in compliance with these Regulations.~~

Chapter 5 – ISDS Design and Construction Requirements

5-1 Performance Requirements

(A) All ISDS must meet the following performance requirements:
  (1) EFLLUENT must not contaminate groundwater or surface water;
  (2) EFLLUENT must not pond around the footings of any structure; and
  (3) Wastewater must not reenter the structure.

(B) All ISDS must be designed, constructed, installed, operated, and maintained in accordance with current scientific and engineering knowledge and best practices.

(C) An ISDS that is designed, constructed, installed, operated, and maintained according to the prescriptive standards defined in this Chapter is presumed to meet the performance requirements of this Subsection, unless the HEALTH AUTHORITY determines that the ISDS

will not adequately protect public health due to circumstances unique to the site or the intended use of the ISDS.

5-1.01 Influent and Effluent Standards

(A) HIGH STRENGTH WASTEWATER is wastewater that contains any constituent that exceeds the concentrations typically found in DOMESTIC WASTEWATER, as defined in the following table:

Table 5-1 Wastewater Characteristics and Treatment Standards

Wastewater Constituent	Typical Concentration (mg/L)		Maximum Concentration (mg/L)	
	Domestic Wastewater	Septic Tank Effluent	Advanced Treatment I	Advanced Treatment II
Total Suspended Solids (TSS)	200	80	30	10
Biochemical Oxygen Demand (BOD_5)	300	180	-	-
Carbonaceous Biochemical Oxygen Demand ($CBOD_5$)	-	-	25	10
Oil and Grease (O&G)	50	25	-	-
Total Nitrogen	-	40	> 50% Reduction	20

(B) HIGH STRENGTH WASTEWATER, including, without limitation, wastewater from food preparation, laundry service, or auto washing, must be pretreated to produce EFFLUENT that has a strength no greater than the maximum concentrations listed for pretreated EFFLUENT in **Table 5-1** before discharge into a SEPTIC TANK, HOLDING TANK, or other storage or treatment unit.

(C) Pretreatment devices are required in the following circumstances, without limitation:

(1) Food establishments must provide a grease interceptor that is designed, constructed, installed, operated, and maintained in accordance with the most current edition of the *Southern Nevada Health District Regulations Governing the Sanitation and Safety of Food Establishments* and with the requirements of the most current edition of the *Uniform Plumbing Code* approved by the local jurisdiction.

(2) Laundromats must provide a lint interceptor that is designed, constructed, installed, operated, and maintained in accordance with the requirements of the most current edition of the *Uniform Plumbing Code* approved by the local jurisdiction.

(3) Auto washes, garages, and any COMMERCIAL FACILITY with air conditioning condensate waste lines and evaporative cooler overflow lines must provide a sand-oil interceptor that is designed, constructed, installed, operated, and maintained in accordance with the requirements of the most current edition of the *Uniform Plumbing Code* approved by the local jurisdiction.

(D) An interceptor or separator that is required pursuant to this Subsection must be:

(1) Accessible for service and maintenance; and
(2) Maintained by periodic removal of accumulated grease, scum, oil, or other floating substances and solids deposited in the interceptor or separator.

(E) Removal of accumulated grease, scum, oil, or other floating substances and solids deposited in an interceptor or separator must be performed by a permitted LIQUID WASTE HAULER in accordance with **Chapter 10** of these Regulations.

5-1.02 Alternative Treatment Systems

(A) Public domain technology ALTERNATIVE TREATMENT SYSTEMS must be:
(1) Designed and stamped by a State of Nevada registered professional engineer; and
(2) Designed, installed, operated, and maintained according to a standard created by a nationally or internationally recognized organization.

(B) Proprietary ALTERNATIVE TREATMENT SYSTEMS must be:
(1) Designed, constructed, installed, operated, and maintained according to the manufacturer's instructions;
(2) Approved by the HEALTH AUTHORITY in accordance with **Chapter 7** of these Regulations; and
(3) Certified or approved for use by the National Sanitation Foundation (NSF) under NSF/ANSI Standard 40 or an equivalent standard approved by the HEALTH AUTHORITY.

5-2 Design Flow Determination

5-2.01 Residential Design Flow Determination

(A) For a Residential ISDS, the design flow may be based on the number of bedrooms, or the total number of plumbing fixture units served by the ISDS, in accordance with the following table:

Table 5-2 Single-Family Residential Design Flows

Bedrooms	Fixture Units	Design Flow[1] (GPD)
1	1-7	150
2	8-14	300
3	15-21	450
4	22-28	600
5	29-35	750
6	36-42	900
7	43-49	1050
≥ 8	≥ 50	≥ 1200[2]

[1] If the number of bedrooms and the fixture unit count correspond with different design flows, the larger design flow must be used.
[2] Each additional bedroom represents an additional 150 GPD and each additional fixture unit represents an additional 20 GPD.

(B) When fixture units are used as the basis for determining the design flow for a Residential ISDS, the number of fixture units must be determined in accordance with the following table:

Table 5-3 Residential Fixture Units

Type of Fixture	Fixture Units
Bathroom Sink (Lavatory)	1
Bathtub	2
Bidet	1
Clothes Washer	2
Floor Drain	2
Kitchen Sink (With or Without Dishwasher)	2
Laundry Tub	1
Shower	2
Toilet (Water Closet)	2
Vegetable Sink, Wet Bar, and Other Sinks	1

5-2.02 Commercial Design Flow Determination

(A) Design flows and organic loads from a COMMERCIAL FACILITY must be determined by a professional engineer or an alternative approved by the HEALTH AUTHORITY.

(B) The design flow for a Commercial ISDS may be based on the total number of plumbing fixture units served by the ISDS or as a function of the proposed use and size of the facility, in accordance with the most current edition of the *Uniform Plumbing Code*, or an alternative approved by the HEALTH AUTHORITY.

(C) When the proposed design flow or organic load is not calculated in accordance with the *Uniform Plumbing Code*:

(1) The design flow or organic load may be determined using one or more of the following alternative data sources, which are listed in order of decreasing importance:

(a) Flow data from the facility that will be served by the proposed ISDS;

(b) Flow data from similar facilities within the jurisdiction of the HEALTH AUTHORITY;

(c) Flow data from similar facilities in other jurisdictions; or

(d) Occupancy or operation patterns from the facility that will be served by the proposed ISDS.

(2) The HEALTH AUTHORITY must approve the alternative method of determining the design flow or organic load.

5-3 Building Sewer Line

(A) The sewer line connecting a building drain to the SEPTIC TANK, including cleanouts and fittings, must be installed in accordance with:

(1) The most current edition of the *Uniform Plumbing Code* approved by the local jurisdiction;

(2) The most current edition of the *International Building Code* approved by the local jurisdiction, including the Southern Nevada Amendments; and

(3) All applicable requirements of the local building department and other local agencies.

(B) A secondary sewer line must be installed to facilitate future connection to a COMMUNITY SEWERAGE SYSTEM in accordance with the following requirements:
  (1) It must begin at the cleanout closest to the building or the SEPTIC TANK;
  (2) It must extend to within one foot (1') of the front property line;
  (3) It must be the same diameter and made of the same material as the rest of the sewer line; ~~and~~
  (4) It must be capped at both ends;
  (5) It must be sloped to promote gravity flow, except as otherwise required by the COMMUNITY SEWERAGE SYSTEM with jurisdiction; and
  (6) The location and invert elevation of each end and equally spaced points along the line must be documented on an AS-BUILT drawing submitted to the HEALTH AUTHORITY.

5-4 Septic Tank Design and Construction

(A) All SEPTIC TANKS and their manufacturers must be approved by the HEALTH AUTHORITY before installation.
(B) All SEPTIC TANKS must be:
  (1) Structurally sound, capable of bearing all anticipated live and dead load conditions exerted on a buried tank, including, without limitation:
    (a) Tank empty and full; and
    (b) Tank installed above and below the water table.
  (2) Watertight to the outlet hole;
  (3) Sized to provide a minimum hydraulic retention time of 48 hours based on the design flow;
  (4) Constructed, installed, operated, and maintained in accordance with:
    (a) The manufacturer's recommendations; and
    (b) The most recent edition of the *Uniform Plumbing Code*, or an equivalent standard approved by the HEALTH AUTHORITY.
(C) The HEALTH AUTHORITY may require an EFFLUENT filter to be installed in the outlet tee of the SEPTIC TANK.
(D) The SEPTIC TANK must contain two compartments in which the first compartment comprises at least half, but no more than two-thirds, of the required volume, except when the SEPTIC TANK is part of a series installation in accordance with **Subsection 5-4(I)**.
(E) The top of the SEPTIC TANK must be no more than four feet (4') below finished grade unless otherwise recommended by the manufacturer.
(F) The minimum size of the SEPTIC TANK is determined according to the following table:

Table 5-4 Septic Tank Sizing

Design Flow (gal/day)	Minimum Liquid Capacity (gal)
< 450	1000
451 – 600	1200
601 – 750	1500
751 – 1000	2000
1001 – 1200	2500

(G) For design flows exceeding 1200 GPD, the minimum liquid capacity of the SEPTIC TANK must be increased by 500 gallons for each additional 250 GPD design flow or portion thereof.

(H) All SEPTIC TANKS constructed, installed, replaced, or repaired after the effective date of these Regulations must be equipped with access risers so that they are easily identifiable and accessible from the ground surface.

(1) Access risers must be equipped with lids that:

(a) Are watertight;

(b) Are brought to or above the surface; and

(c) Have a secure closing mechanism to prevent unauthorized access, such as a lock, special headed bolts or screws, or other mechanism that conforms with the most current edition of the ASTM C1227 Standard, or an equivalent standard approved by the HEALTH AUTHORITY.

(2) Access openings must be accessible to LIQUID WASTE HAULER vehicles.

(3) All exposed access openings must be guarded.

(4) Covers, risers, and lids must be capable of bearing the expected live and dead loads.

(I) Two SEPTIC TANKS may be installed in series when the following criteria are met:

(1) Both tanks consist of a single compartment;

(2) Both tanks were constructed by the same manufacturer;

(3) The primary tank is sized to provide a minimum hydraulic retention time of 24 hours based on the design flow;

(4) The tanks are separated by no more than three feet (3') and connected by a level four-inch (4") nominal size solid Schedule 40 polyvinyl chloride (PVC), polyethylene (PE), acrylonitrile-butadiene-styrene (ABS), or equivalent, or other pipe approved by the HEALTH AUTHORITY;

(5) Inlet and outlet tees are installed in each tank; and

(6) An EFFLUENT filter that is certified or approved for use under NSF/ANSI Standard 46 must be installed in the outlet tee of the primary tank.

5-5 Effluent Distribution

(A) EFFLUENT must be distributed evenly to all DISTRIBUTION LINES.

(B) EFFLUENT distribution by gravity flow must be accomplished using a piping manifold or DISTRIBUTION BOX.

(C) EFFLUENT may be distributed by a pressure distribution system when:

(1) A gravity flow system is unsuitable, inadequate, unfeasible, or cost prohibitive because of site limitations or other conditions;

(2) Necessary to optimally distribute SEWAGE; or

(3) Required as part of an ALTERNATIVE TREATMENT SYSTEM.

(D) Pressure distribution systems must be constructed, installed, operated, and maintained in accordance with NAC 445A.9664 and 445A.969.

(E) The DISTRIBUTION BOX, piping manifold, or other EFFLUENT distribution device must be separated from the SEPTIC TANK and SOIL ABSORPTION SYSTEM by a minimum of two feet (2') of undisturbed soil.

(F) A DISTRIBUTION BOX must be used for EFFLUENT distribution when:

(1) The SOIL ABSORPTION FIELD is composed of more than two DISTRIBUTION LINES; or
(2) The ISDS utilizes a split SOIL ABSORPTION FIELD.

(G) A piping manifold may be used for EFFLUENT distribution only when a DISTRIBUTION BOX is not required.

5-5.01 Specific Requirements for Piping Manifolds

(A) The piping manifold must be constructed of a minimum of three-inch (3") nominal size solid Schedule 40 or SDR-35 polyvinyl chloride (PVC), polyethylene (PE), acrylonitrile-butadiene-styrene (ABS), or equivalent, or other pipe approved by the HEALTH AUTHORITY.

(B) The piping manifold must be level and steady and all joints must be watertight.

(C) The EFFLUENT line from the SEPTIC TANK must bisect the piping manifold using a bidirectional straight tee fitting only.

5-5.02 Specific Requirements for Distribution Boxes

(A) Each DISTRIBUTION BOX must be:
(1) Constructed of corrosion-resistant concrete, SEWAGE-compatible plastic, or other material approved by the HEALTH AUTHORITY;
(2) Installed, operated, and maintained in accordance with the manufacturer's recommendations;
(3) Level, steady, and watertight; and
(4) Installed on a cast-in-place or pre-cast concrete pad that extends three inches (3") beyond its edge.

(B) Each DISTRIBUTION LINE must be connected separately to the DISTRIBUTION BOX.

(C) The DISTRIBUTION BOX must have a single inlet set at least one inch (1") above the outlets.

(D) The outlet inverts must be set at the same level and four inches (4") to six inches (6") above the bottom of the DISTRIBUTION BOX.

(E) FLOW EQUALIZERS must be installed in each outlet of the DISTRIBUTION BOX.

5-6 Soil Absorption Systems

(A) SOIL ABSORPTION SYSTEMS must be designed, constructed, installed, operated, and maintained to achieve adequate hydraulic performance and provide adequate treatment of EFFLUENT.

5-6.01 Soil Absorption System Sizing

(A) The required area of the SOIL ABSORPTION SYSTEM shall be calculated based on the LONG-TERM ACCEPTANCE RATE (LTAR) of the soil at the site of the proposed ISDS.

(B) The LTAR shall be determined based on the limiting hydraulic and organic loading rates that will result in adequate biological and chemical treatment of pollutants.

(C) The LTAR for DOMESTIC WASTEWATER shall be determined in accordance with the following table:

Table 5-5
Long-Term Application Rates for
Domestic Wastewater Application to Soil Absorption Systems

Soil Texture	Soil Structure		Approximate Corresponding	LTAR (gal/day/ft^2)		
	Shape	Grade		Septic	Advanced	Advanced

			Percolation Rate (min/in)	Tank	Treatment Level I	Treatment Level II
Gravel	Single Grain	Structureless	< 1	Unsuitable; Engineered Treatment System Required		
Coarse Sand	Single Grain	Structureless	1 – 5	1.2	1.4	1.55
Sand	Single Grain	Structureless		1.0	1.4	1.55
Loamy Coarse Sand, Loamy Sand, Fine Sand, Very Fine Sand	Single Grain	Structureless	6 – 15	0.8	1.4	1.55
Coarse Sandy Loam, Sandy Loam, Fine Sandy Loam, Very Fine Sandy Loam, Loam, Silt Loam	Prismatic, Blocky, Granular	Moderate, Strong	16 – 40	0.6	0.8	0.9
		Weak		0.5	0.8	0.9
	Massive	Structureless				
Silt, Sandy Clay Loam, Clay Loam, Silty Clay Loam	Prismatic, Blocky, Granular	Moderate, Strong	41 – 60	0.35	0.55	0.65
		Weak	61 – 75	0.3	0.45	0.55
	Massive	Structureless				
Sandy Clay, Silty Clay, Clay	Prismatic, Blocky, Granular	Moderate, Strong	76 – 90	0.2	0.3	0.3
		Weak	91 – 120	0.15	0.2	0.2
	Massive	Structureless				
All Textures	Platy	All Grades	> 120	0.1	0.15	0.15
Bedrock, Hardpan (Caliche), Fragipan, Duripan	N/A	N/A		Unsuitable; Engineered Treatment System Required		

(D) The soil texture and structure shall be determined from the Site Evaluation required pursuant to **Chapter 4**.

(E) The LTAR shall be based on the most hydraulically limiting naturally occurring soil horizon to a depth of four feet (4') below the bottom of the SOIL ABSORPTION SYSTEM.

(F) The minimum area of the SOIL ABSORPTION SYSTEM is calculated using the following equation:

$$A = \left(\frac{Q}{LTAR}\right)(F), \text{ where:}$$

(1) "A" is the minimum required absorption area;

(2) "Q" is the design flow, which is determined from **Table 5-1**, **Table 5-2**, and/or **Table 5-3**;
(3) "LTAR" is the LONG-TERM ACCEPTANCE RATE, which is determined using **Table 5-5**; and
(4) "F" is a size adjustment factor, which is determined from **Table 5-6**.

Table 5-6 Size Adjustment Factors (F)

Distribution Media	Configuration	Distribution Method	
		Gravity	Pressure Dosed
Rock or Gravel	Trench	1.0	0.8
	Bed	1.2	1.0
Chambers and Other Gravelless Media	Trench	0.7	0.7
	Bed	0.84	0.84

(G) The LTAR must not be based solely upon the results of percolation testing.
(H) The HEALTH AUTHORITY may allow for a reduced area of the SOIL ABSORPTION SYSTEM when the ISDS includes an ADVANCED TREATMENT SYSTEM.

5-6.02 Soil Absorption System Construction and Installation

(A) Pipes used for distribution of EFFLUENT must be constructed of a minimum of three-inch (3") nominal size perforated Schedule 40 polyvinyl chloride (PVC), polyethylene (PE), acrylonitrile-butadiene-styrene (ABS), or equivalent, or other pipe approved by the HEALTH AUTHORITY.
(B) The SEPTIC TANK and SOIL ABSORPTION SYSTEM must be separated by a minimum of five feet (5') of undisturbed soil.
(C) Each DISTRIBUTION LINE must be of equal length and must not exceed 100 feet.
(D) The INFILTRATIVE SURFACE and all DISTRIBUTION LINES must be level, with a maximum slope of two inches per hundred feet (0.16%).
(E) Each DISTRIBUTION LINE must be covered by a minimum of one foot (1') and a maximum of three feet (3') of native backfill.
(F) The INFILTRATIVE SURFACE must be no more than four feet (4') below grade unless:
  (1) The SOIL ABSORPTION SYSTEM is adequately aerated by the addition of vents or some other mechanism approved by the HEALTH AUTHORITY; or
  (2) The ISDS includes an ADVANCED TREATMENT SYSTEM that meets the standards of **Section 5-1**.
(G) Leaching chambers and other technologies approved for use by the HEALTH AUTHORITY must be installed according to the manufacturer's recommendations.
(H) SOIL ABSORPTION SYSTEMS must be backfilled and compacted in a manner that:
  (1) Does not impair the intended function and performance of the soil, distribution media, and/or DISTRIBUTION LINES;
  (2) Allows for the establishment of vegetative cover;
  (3) Minimizes settlement; and
  (4) Diverts surface runoff away from the SOIL ABSORPTION SYSTEM.
(I) The finished grade over the SOIL ABSORPTION SYSTEM must be landscaped to:
  (1) Provide adequate drainage;

(2) Prevent root intrusion;
(3) Protect against erosion; and
(4) Prevent the ponding of water.

5-7 ISDS Location and Separation Requirements

(A) An ISDS must meet the horizontal separation requirements listed in the following table:

Table 5-7 Horizontal Separation Requirements

Feature	Minimum Horizontal Separation		Comments
	Septic Tank	Soil Absorption System	
Property Line	10’	10’	
Building or Load-Bearing Structure	5’	8’	Includes porches, decks, steps (covered or uncovered), breezeways, roofed patios, carports, covered walks, retaining walls, and similar structures and appurtenances.
Private Water Supply Well	100’	100’	Includes any well that does not qualify as a PUBLIC WATER SYSTEM, including wells not used for drinking water (e.g., irrigation wells). Includes abandoned wells that have not been properly plugged in accordance with NAC 534.355-4365, inclusive.
Public Water System Well	150’	150’	
Drainage Channel	25’	25’	
Rock Outcrop	25’	25’	
Slopes > 25%	25’	25’	
Streams or Watercourses	100’	100’	Includes lakes, reservoirs, rivers, streams (perennial or intermittent), and canals.
Public Water Line	25’	25’	Includes mains and laterals.
Onsite Water Line	10’	10’	
Swimming Pool	10’	10’	Measured from the edge of the water surface.
Block Wall	3’	3’	
Driveway	0’	0’	Septic tank and leach field can be adjacent to, but not under, a driveway.

Chapter 6 – Division and Use of Land

6-1 Parcel Maps

(A) The HEALTH AUTHORITY shall review and provide written comments on all PARCEL MAP applications that meet any of the following criteria:
(1) An ISDS is located on the existing parcel (the “Parent Parcel”);

(2) The proposed parcels (the "Child Parcels") will be less than one (1) acre and meet the criteria to install an ISDS; or

(3) The proposed Child Parcels meet the criteria to install an ISDS and may require NITROGEN REMOVAL SYSTEMS or another ALTERNATIVE TREATMENT SYSTEM.

(B) The property owner must meet the following conditions of approval before recording the PARCEL MAP with the Clark County Recorder's Office:

(1) When an ISDS is located on the existing parcel:

(a) All existing ISDS must be shown on the PARCEL MAP, with each component of the ISDS and all separation distances clearly and accurately marked;

(b) Each ISDS that will no longer be used must be removed or abandoned in accordance with **Chapter 9**; and

(c) The applicable review fee must be paid to the HEALTH AUTHORITY.

(2) When the proposed parcels meet the criteria to install an ISDS:

(a) The PARCEL MAP must include a certificate by the Southern Nevada District Board of Health indicating:

(i) That the PARCEL MAP is approved concerning SEWAGE disposal; and

(ii) Any conditions of approval required by the HEALTH AUTHORITY, including, but not limited to, the requirement to install a NITROGEN REMOVAL SYSTEM or another ALTERNATIVE TREATMENT SYSTEM.

(b) Each of the proposed parcels must be supplied with water adequate for the zoned use; and

(c) The applicable review fee must be paid to the HEALTH AUTHORITY.

(C) For a second or subsequent PARCEL MAP of a single parcel or a contiguous tract of land under the same ownership, or ownership by a partnership or corporation of which an individual is a principal or officer, or ownership by PERSONS of first degree of consanguinity:

(1) The HEALTH AUTHORITY may require each of the proposed parcels to connect to a COMMUNITY SEWERAGE SYSTEM; or

(2) The HEALTH AUTHORITY may require each proposed parcel to install a NITROGEN REMOVAL SYSTEM when any one of the proposed parcels individually would exceed the maximum ISDS density or otherwise trigger the requirement.

(D) Any subdivision of land that violates or that will cause a violation of these Regulations is prohibited.

6-2 Land Use Applications

(A) The HEALTH AUTHORITY shall review all land use applications, including but not limited to variances, zoning changes, waivers of development standards, use permits, and design reviews.

(B) When an ISDS is located on a property that is associated with or subject to a land use application:

(1) The property owner or the property owner's representative must apply to the HEALTH AUTHORITY for permission to modify the ISDS Operating Permit in accordance with **Section 2-2.04**; or

(2) If the proposed use does not allow for continued use of the ISDS, or if the property will no longer be suitable for use of an ISDS, the property owner or the property owner's representative must:

(a) Provide notice to the HEALTH AUTHORITY of the intent to remove or abandon the ISDS;
(b) Remove or abandon the ISDS in accordance with **Chapter 9**; and
(c) Provide the HEALTH AUTHORITY with proof of connection to a COMMUNITY SEWERAGE SYSTEM.

Chapter 7 – Product and Technology Review

7-1 When Required

(A) Products in the following categories, without limitation, must be reviewed and accepted by the HEALTH AUTHORITY before they can be used in Clark County:
(1) Proprietary treatment products, including without limitation, NITROGEN REMOVAL SYSTEMS and ALTERNATIVE TREATMENT SYSTEMS;
(2) Propriety distribution products, including without limitation, plastic leaching chambers; and
(3) SEPTIC TANKS.

7-2 Product Review Applications

(A) Any PERSON desiring to install or distribute proprietary ISDS products in Clark County must apply to the HEALTH AUTHORITY in a manner or form approved by the HEALTH AUTHORITY.
(B) The Product Review Application must include, without limitation:
(1) The name, mailing address, and street address of the manufacturer;
(2) The name, phone number, and email address of an individual who is vested with the authority to represent the manufacturer in the acceptance process;
(3) Product category (e.g., proprietary treatment product, proprietary distribution product, or SEPTIC TANK);
(4) Product name, including the specific brand and model;
(5) A description of the functions of the product, along with any known limitations on the use of the product;
(6) Product description and technical information, including:
(a) Dimensioned drawings;
(b) Materials and characteristics;
(c) Component design specifications; and
(d) Volumes, design capacity, and flow assumptions and calculations;
(7) Siting and installation requirements;
(8) Product performance information;
(9) Detailed description, procedure, and schedule of routine service and maintenance;
(10) A report describing in detail the test procedures and data confirming the performance and properties of the product claimed by the manufacturer;
(11) Copies of the manufacturer's literature, including:
(a) Sales and promotion; and
(b) Design and installation, operation and maintenance, and owner instructions; and
(12) Identification of information subject to protection from disclosure and trade secrets, if any.
(C) The Product Review Application must be accompanied by a nonrefundable fee in the amount specified in the current SNHD Environmental Health Permit Fee Schedule.

(D) Products within a single series or model line sharing distinct similarities in design, materials, capacities, configuration, and claiming the same level of treatment may be accepted under a single application.

(E) Manufacturers must have readily accessible and current information for designers, regulators, product owners, and other interested parties about their product including:

(1) Product manuals;

(2) Design instructions;

(3) Installation instructions;

(4) Operation and maintenance instructions; and

(5) A list of representatives and manufacturer-certified service providers in Clark County, or if none exist, information on how service on the product will be provided in Clark County.

Section 10
NITROGEN REMOVAL SYSTEMS

10.1 A **nitrogen removal system** is a system that receives sewage, and through biological de-nitrification, chemical reduction or ion exchange reduces the total nitrogen level of the effluent to less than or equal to ten (10) milligrams per liter or parts per million, measured as total nitrogen.

10.2 **Approval**. All nitrogen removal systems must be approved by the Health Authority through a product review process. A list of approved nitrogen removal systems and their manufacturers can be requested from the Health Authority.

10.3 **NSF Certification**. All nitrogen removal septic systems must be approved by the National Sanitation Foundation (NSF) Standard 40, Class I, or authorized by the NDEP or the State Health Authority, prior to application to SNHD through its product review process.

10.4 Design for Nitrogen Removal Septic Systems.

10.4.1 The wastewater shall be delivered to the nitrogen removal system by gravity flow either directly or by a lift pump.

10.4.2 The nitrogen removal system shall be constructed from non-corrosive materials.

10.4.3 All mechanical and electrical components shall be waterproofed and/or protected from the elements. Electrical components shall be protected with safety devices (ground fault circuit interrupters, fuses, etc).

10.5 Installation Requirements for Nitrogen Removal Septic Systems.

10.5.1 Installation of the nitrogen removal septic system components shall conform to the manufacturer's specifications.

10.5.2 The excavation, foundation and backfill placement shall be performed to prevent differential settling and the adverse effects of drainage.

10.6 Operation and Maintenance.

10.6.1 A current contract with a maintenance provider approved by the Health Authority is required for the life of all nitrogen removal septic systems. New property owner (s) shall provide the Health Authority with an updated maintenance contract within thirty (30) days from the close of escrow.

10.6.2 If there is a change in the maintenance provider, the property owner must provide with a new Health Authority approved maintenance provider's contract within thirty (30) days.

10.6.3 The maintenance provider shall sample and test for total nitrogen on a quarterly basis starting ninety (90) days after approved final inspection or date of occupancy, and every year thereafter for as long as the system is required to be operational. The maintenance provider shall provide unmodified test results to Health Authority from the testing laboratory. The Health Authority may at any time request and/or conduct additional sampling and testing to insure compliance. Any maintenance provider not adhering to these Regulations, at the discretion of the Health Authority, shall be removed from the Approved Maintenance Provider list

10.6.4 The nitrogen removal system effluent shall be tested by a laboratory certified by the Nevada State Health Division.

10.7 Annual Nitrogen Removal System Surveillance

10.7.1 An **annual nitrogen removal system surveillance fee** shall be required in the amount specified in the current SNHD Environmental Health Fee Schedule.

10.7.2 All nitrogen removal systems shall be inspected by the Health Authority at least once per year starting one year from the date of approved final inspection, until proof of municipal sewer connection is provided and the septic system is abandoned according to **Section 17** of these Regulations. The inspection shall be in accordance with **Section 16** of these Regulations.

10.7.3 If the annual surveillance inspection is not approved, a re-inspection fee in the amount specified in the current SNHD Environmental Health Fee Schedule shall be applicable. The re-inspection fee must be paid prior to scheduling another inspection.

10.8 Revocation of Nitrogen Removal System Permit

10.8.1 The Health Authority may revoke a Nitrogen Removal System permit if applicable fees are not paid, annual inspections are not approved or resolved within sixty (60) days of the inspection date, effluent test results are not provided to the Health Authority as required, or the effluent test results consistently do not meet the required parameters, and/or the property owner does not have an approved maintenance contract.

10.8.2 The Health Authority shall not approve Tenant Improvements, pool plans, or certifications for revoked permits

10.8.3 If municipal sewer is more than four hundred (400') feet from the nearest property line, the revoked Nitrogen Removal System permit may be activated

~~by paying all accumulated fees and meeting all the requirements in **Section 10**, including an approved annual inspection.~~

~~10.8.4 If gravity connection to municipal sewer is available within four hundred (400') to the nearest property line, then the revoked Nitrogen Removal System permit shall not be activated. Municipal sewer connection and abandonment of the existing ISDS according to **Section 17** shall be required.~~

Chapter 8 – Nitrogen Removal Systems

8-1 When Required

(A) Before issuing any ISDS Construction Permit or approving any PARCEL MAP, the HEALTH AUTHORITY shall evaluate the actual and potential nitrate contamination of groundwater using one of the following methods:

(1) The NDEP Septic Density Model, as defined in **Subsection 8-2.01**; or

(2) Another method developed, adopted, or approved by the HEALTH AUTHORITY in accordance with **Subsection 8-2.02**.

(B) A NITROGEN REMOVAL SYSTEM shall be required for any new ISDS Construction Permit when:

(1) The HEALTH AUTHORITY determines pursuant to this Chapter that the proposed ISDS poses an actual or potential risk of nitrate contamination of groundwater;

(2) The property PARCEL MAP contains text stating that a NITROGEN REMOVAL SYSTEM will be required;

(3) The property is part of a subdivision, and the subdivision final map contains text stating that a NITROGEN REMOVAL SYSTEM will be required; or

(4) The proposed ISDS is within a Nitrogen Management Area, as designated by NDEP pursuant to NAC 445A.9606.

8-2 Methods for Evaluating the Risk of Groundwater Nitrate Contamination

8-2.01 NDEP Septic Density Model

(A) The HEALTH AUTHORITY shall implement the NDEP Septic Density Model as follows:

(1) The HEALTH AUTHORITY shall determine the number of existing ISDS within 3,000 feet of the centroid of the property on which the proposed ISDS will be constructed.

(2) The proposed ISDS presumptively poses an actual or potential risk of nitrate contamination of groundwater when the density calculated in **Subsection 8-2.01(A)(1)** exceeds the maximum density permitted by the NDEP Septic Density Model for the groundwater basin to which the property belongs.

(B) When an ISDS is proposed in an area where the density of ISDS exceeds the maximum density permitted by the NDEP Septic Density Model by a factor of 3 or more, the HEALTH AUTHORITY may require any NITROGEN REMOVAL SYSTEMS to meet the more stringent performance requirements of **Subsection 8-3(D)**.

8-2.02 Alternative Nitrogen Evaluation Methods

(A) If the HEALTH AUTHORITY determines that the NDEP Septic Density Policy is no longer an adequate or appropriate method for evaluating the actual or potential nitrate

contamination of groundwater, it may adopt or develop a method to replace or supplement the NDEP Septic Density Policy.

(B) When adopting or developing a method to supplement or replace the NDEP Septic Density Policy, the HEALTH AUTHORITY shall consider the following:

(1) Population of the area;
(2) The degree to which the area is unsewered;
(3) Gross areal nitrogen loading, calculated as the amount of nitrogen discharged into the subsurface by use of ISDS, divided by the land area under consideration;
(4) Population growth rate of the area;
(5) Existing contamination of groundwater by nitrogen species;
(6) Existing and potential impact to groundwater by sources of nitrogen other than ISDS;
(7) Characteristics of the vadose zone and aquifer;
(8) Location, number, and areal extent of existing and potential sources of nitrogen;
(9) Location and characteristics of existing and potential drinking water supplies; and
(10) Any other information relevant to determining the severity of actual or potential nitrogen impact on the aquifer.

8-3 Design and Performance Requirements

(A) All NITROGEN REMOVAL SYSTEMS must be certified or approved for use by the National Sanitation Foundation (NSF) under NSF/ANSI Standard 245.

(B) All NITROGEN REMOVAL SYSTEMS must be reviewed and approved by the HEALTH AUTHORITY in accordance with **Chapter 7** of these Regulations.

(C) All NITROGEN REMOVAL SYSTEMS must be able to produce EFFLUENT with an average TOTAL NITROGEN concentration that is less than 50% of the average TOTAL NITROGEN concentration of the INFLUENT.

(D) When a proposed ISDS will be located in an area designated by NDEP as a Nitrogen Management Area pursuant to NAC 445A.9606, the ISDS must be installed with a NITROGEN REMOVAL SYSTEM that can produce EFFLUENT with a TOTAL NITROGEN concentration of less than 20 mg/L under normal operating conditions.

8-4 Operation and Maintenance Requirements

(A) All NITROGEN REMOVAL SYSTEMS must be installed, operated, and maintained in accordance with the manufacturer's recommendations and these Regulations.

(B) All NITROGEN REMOVAL SYSTEMS are subject to the operation and maintenance requirements of **Section 2-3** in addition to the requirements of this Chapter.

(C) The HEALTH AUTHORITY may revoke the ISDS Operating Permit associated with a NITROGEN REMOVAL SYSTEM if:

(1) Test results are not provided to the HEALTH AUTHORITY as required by **Subsection 8-4.02**;
(2) Test results consistently fail to meet the required standards; or
(3) The NITROGEN REMOVAL SYSTEM is not being serviced by an approved Service Provider in accordance with the requirements of **Subsection 8-4.01**.

8-4.01 Service Providers

(A) The operation and maintenance requirements of this Chapter must be met by an approved Service Provider in one of the following categories:

(1) A third-party Service Provider approved by the HEALTH AUTHORITY; or
(2) The property owner, if the property owner has been certified by the manufacturer of the NITROGEN REMOVAL SYSTEM and has obtained prior approval from the HEALTH AUTHORITY.

(B) All property owners who do not meet the requirements of **Subsection 8-4.01(A)(2)** must maintain a contract with a Service Provider approved by the HEALTH AUTHORITY for the life of the system.
(1) A new property owner must provide the HEALTH AUTHORITY with an updated maintenance contract within 30 days from the close of escrow.
(2) The property owner must provide the HEALTH AUTHORITY with an updated maintenance contract within 30 days of contracting with a new Service Provider.
(3) A Service Provider must notify the HEALTH AUTHORITY when a contract is terminated for any reason, including non-payment.

(C) The Service Provider must provide an annual report to the HEALTH AUTHORITY on a form approved by the HEALTH AUTHORITY. The report must include the following information, without limitation:
(1) A description of maintenance activities performed;
(2) A description of any recommended, necessary, and/or completed repairs; and
(3) Unmodified test results from the testing laboratory, in accordance with **Subsection 8-4.02**.

(D) The HEALTH AUTHORITY may suspend or revoke the certification of any Service Provider that fails to adhere to these Regulations.

8-4.02 Testing Requirements

(A) The EFFLUENT must be tested for TOTAL NITROGEN, Kjeldahl nitrogen, and nitrate, expressed as mg/L as nitrogen.

(B) The Service Provider must collect samples in a manner and from a location specified by the manufacturer of the NITROGEN REMOVAL SYSTEM.
(1) If the manufacturer does not specify a sampling location, the sample must be collected immediately after the NITROGEN REMOVAL SYSTEM, before the EFFLUENT is discharged to the SOIL ABSORPTION SYSTEM.
(2) If the manufacturer does not specify a sampling procedure, the sample must be collected in accordance with generally accepted wastewater sampling practices.

(C) Testing required under this Section must be performed by a laboratory that is certified by NDEP to test for the analytes specified in **Subsection 8-4.02(A)**.

(D) The HEALTH AUTHORITY may, at the expense of the property owner, require or conduct additional sampling and testing of the EFFLUENT and sampling and testing of the INFLUENT to evaluate the TOTAL NITROGEN reduction achieved by the system when:
(1) The NITROGEN REMOVAL SYSTEM is required to produce EFFLUENT with a TOTAL NITROGEN concentration of 20 mg/L or less and consistently fails to meet this requirement; or
(2) The NITROGEN REMOVAL SYSTEM consistently produces EFFLUENT with a TOTAL NITROGEN concentration that is not substantially different from concentrations typically found in DOMESTIC WASTEWATER INFLUENT.

(E) Unless otherwise recommended by the manufacturer or required by the HEALTH AUTHORITY, the NITROGEN REMOVAL SYSTEM must be tested:
(1) Quarterly during the first year of operation, beginning 90 days after an approved final inspection or date of occupancy, whichever occurs later; and

(2) Every twelve (12) months thereafter for as long as the system is required to be operational.

(F) When a NITROGEN REMOVAL SYSTEM becomes dormant or out of use for an extended period (e.g., more than one year), the property owner may apply for a temporary waiver of the testing requirements of this Subsection.

(1) The HEALTH AUTHORITY shall only consider waiver requests submitted in writing with supporting documentation.

(2) The waiver shall be granted only for the period in which the NITROGEN REMOVAL SYSTEM is not in use.

(3) The property owner must reapply for the waiver every twelve (12) months and must notify the HEALTH AUTHORITY prior to resuming use of the ISDS.

(4) The property owner may be required to complete the startup procedure recommended by the manufacturer when the NITROGEN REMOVAL SYSTEM is returned to service.

~~Section 11~~
~~SPECIFIC LIMITATIONS AND REQUIREMENTS~~

~~11.1 The use of cesspools for the disposal of untreated sewage is prohibited.~~

~~11.2 The discharge of surface rain and other large volumes of clear water into an individual sewage disposal system are prohibited.~~

~~11.3 All trees shall be at least ten feet (10') from both the septic tank and leach field.~~

~~11.4 The disposal of water from swimming pool or spa into or over the septic system is prohibited. The disposal of backwash waste from pool or spa filters into the septic system is prohibited.~~

~~11.5 The disposal of recreational vehicle (RV) waste into the septic system is prohibited.~~

~~11.6 The disposal of oils, grease, flammable toxic products and chemicals, pharmaceutical products, which includes, without limitation: gasoline, motor oil, household cleaners, pool/spa products, chlorides, pesticides, herbicides, agricultural chemicals or fertilizers, pills, capsules and tablets, into the septic system is prohibited.~~

~~11.7 Irrigation above the ground surface with effluent is prohibited.~~

~~11.8 The design of all prefabricated septic tanks shall be approved by the Health Authority prior to their installation.~~

~~11.9 The five foot (5') minimum vertical separation shall be maintained between the bottom of the soil absorption system and the maximum seasonal elevation of the groundwater table. In areas where it is presumed that the groundwater level is high, that is, less than nine feet (9') from finished grade to the highest seasonal groundwater level, a boring shall be provided to the Health Authority. The boring log may be submitted from the geotechnical report for a proposed building or structure.~~

~~11.10 An individual sewage disposal system may serve only one (1) single building for commercial applications.~~

~~11.11 The Health Authority shall review every sewage disposal system proposed for single buildings containing multiple dwelling units or single building multi-unit warehouses to determine compliance with all pertinent state and local Regulations.~~

~~11.12 A septic tank shall not be installed independently without a soil absorption system to receive the septic tank effluent.~~

~~11.13 A soil absorption system shall not be in the fifty (50) year flood plain:~~

~~11.13.1 When soil absorption systems are located in the one hundred (100) year flood plain, the septic tank will be made waterproof by completely coating the tank and having a minimum of twelve inches (12") of soil over the top.~~

~~11.14 A soil absorption system shall not be installed in a non-compacted fill area without approval from the Health Authority.~~

~~11.15 An individual sewage disposal system is prohibited in an area subject to vehicular access or traffic, or any area to be paved.~~

~~11.16 The placement of any impervious covering, or any material deemed to be unacceptable to the Health Authority, over the soil absorption system is prohibited.~~

~~11.17 A pre-site evaluation inspection by the Health Authority shall be required before application is made for a septic system permit in Mount Charleston, and any other environmentally sensitive area, as determined by the Health Authority.~~

~~11.18 A septic system shall not be constructed in an easement of any kind, unless the easement is for that purpose.~~

~~11.19 All change (s) in directions of sewers in a sewage disposal system shall be accomplished by the use of ninety (90) degree bends or lesser angle bend pipe fittings.~~

~~11.20 **Lot Size (s) Requirement:**~~

~~11.20.1 A minimum area of one (1) acre (43,560 square feet), including public streets and alleys, or other right-of-way or easements, or any portion thereof abutting on, running though or within a building site, is required for the installation of an individual sewage disposal system where the water supply is from a well serving only that property.~~

~~11.20.2 A minimum of one-quarter (1/4) acre (10,900 square feet), including public streets or alleys or other rights-of-way or easements, or any portions thereof abutting on, running through or within a building site, is required on a lot served by a community well or municipal water.~~

~~11.21 Excavations for the septic tank and leach field shall be separated by a minimum of five (5') feet of undisturbed earth. (See Figure 4)~~

~~11.22 The requirement for allocating an area for the installation of another leach field (equal in size to the original leach field) if the original leach field should fail will not normally be required by the Health Authority. The requirement for a backup leach field area may be required, however, based on the specific system proposed at the discretion of the Health Authority.~~

~~11.23 These Regulations shall not preclude the use of treatment devices other than septic tanks, as may be approved by the Health Authority. Such treatment devices shall bear the certification of the National Sanitation Foundation (NSF).~~

~~11.24 The use of sweeping T's is prohibited.~~

~~11.25 Provisions not covered by these Regulations shall meet the requirements of the latest edition of the Uniform Plumbing Code (UPC).~~

~~11.26 ISDS must be constructed on and remain on the same parcel as the structure(s) it serves.~~

~~11.27 Floor drains are not allowed in garages because of the potential of introducing industrial system into the ISDS (see NAC 444.759 and NAC 444.8766)~~

~~Section 12~~
~~SEWER CONNECTION~~

~~12.1 When community sewers become available, the owner of any property served by an individual sewage disposal system shall abide by the local governmental regulation requiring connection to the community sewerage system.~~

~~12.2 The individual septic system shall be discontinued and the structure shall be connected to the community sewerage system when the owner is notified to do so.~~

~~12.3 All abandoned septic tanks shall be immediately pumped and filled with dry earth and proof supplied to the Health Authority (See **Section 17** for applicable abandonment procedure).~~

~~Section 13~~
~~INDUSTRIAL WASTES~~

~~13.1 Treatment and disposal systems for industrial wastes shall be individually designed and shall be of a type that will adequately purify the specific waste. Any system designed to treat industrial waste must be approved by the Health Authority.~~

~~13.2 Owners of industrial establishments producing trade wastes of toxic, putrescible, or otherwise hazardous character shall consult with the Health Authority and comply with the instructions and requirements in the design of their systems.~~

~~Section 14~~
~~LAND SLOPE REQUIREMENTS~~

~~14.1 As the slope of the ground increases, the minimum depth to the bottom of the soil absorption system must be increased to prevent effluent from discharging downhill. The minimum depth from top of existing ground to the bottom of the soil absorption system shall be as follows: (See Figure 7)~~

~~14.1.1 For slope less than five percent (5%), no increase. The depth to the bottom of the soil absorption system shall be thirty-six inches (36") minimum.~~

~~14.1.2 For slopes five percent (5%) but less than ten percent (10%), minimum depth shall be forty-eight inches (48").~~

~~14.1.3 For slopes ten percent (10%) but less than twenty percent (20%) minimum depth shall be sixty inches (60").~~

~~14.1.4 Slopes greater than twenty percent (20%)~~

~~Depth equals three feet (3') plus ten (10) times the percent of slope. [D = 3' + 10 (% of slope)]~~

~~For example: If slope equals twenty-eight percent (28%): D = 3' + 10 (0.28) = 3 + 2.8 = 5.8 ft~~
~~This is the minimum depth to bottom of soil absorption system~~

~~14.2 **Supplemental Horizontal Requirements.** Regardless of the slope of the land, the distance from the soil absorption system to any ground surface (face to slope) shall be removed at least twenty feet (20') (measured vertically and horizontally). The Health Authority may require additional horizontal clearances from face of slope after evaluating the topographical and/or geologic conditions of a specific site. (See Figure 8)~~

Section 15
SOIL PERCOLATION RATES AND SOIL CHARACTERIZATION

15.1 Soil Boring and Percolation Tests.

15.1.1 Soil boring and percolation tests shall be made or be supervised by professional engineer, registered in Nevada. The person supervising the tests shall certify as to the correctness of the procedure and the results.

15.1.2 Percolation test data from a minimum of two (2) test holes on the area of the proposed soil absorption system shall be required. The location of the test holes shall be indicated on a site plan of the property and submitted with the percolation test results to the Health Authority.

15.1.3 Percolation tests are only acceptable for the parcel on which the test was conducted, in the area of proposed soil absorption system.

15.1.4 A new percolation test shall be required if the soil composition is changed, an engineered fill is utilized, a septic system fails or any other purpose as deemed necessary by the Health Authority.

15.2 Percolation Test Procedure.

15.2.1 **Type of hole.** The hole shall be dug or bored. It shall have vertical sides and have a horizontal dimension of four to twelve inches (4" to 12"). A four inch (4") or larger auger may be used. The hole shall be dug to the depth of the proposed absorption trench, bed, field, or pit.

15.2.2 **Preparation of hole.** The bottom and sides of the hole shall be carefully scratched with a sharp-pointed instrument to expose the natural soil interface. All loose material shall be removed and from the bottom of the hole which shall then be covered with two inches (2") of coarse sand or gravel when necessary to prevent scouring.

15.2.3 **Saturation and swelling of the soil.** The hole shall be carefully filled with clear water to a minimum depth of twelve inches (12") over the gravel. By refilling, if necessary, or by supplying a surplus reservoir of water, such as an automatic siphon, the test hole shall be filled with water for at least four (4) hours and preferably overnight, so that it will approach the conditions that will exist during the wettest season of the year. In sandy soils, containing little or no clay, the swelling procedure is not essential and the test may proceed, as hereafter described, if the water from a second filling of the hole seeps away in ten (10) minutes or less.

15.2.4 **Percolation rate measurements.** With the exception of sandy soils, percolation rate measurements shall be made on the day following the procedure described in **Section 15.2.3** above. If water remains in the test hole after an overnight swelling period, the depth shall be adjusted to a level of six reference point, the drop in water level shall be measured over thirty (30) minutes, or longer period. This drop shall be used to calculate the percolation rate. If not water remains in the hole after the overnight swelling period, there shall be added clear water shall be added to bring the depth of the water in the hole to a level which is six inches (6") over the gravel. Thereupon, from a fixed reference point, the drop in water level shall be measured at thirty (30) minute intervals until two (2) successive readings do not vary by more than five percent (5%), or for a period of four (4) hours, refilling the hole whenever it becomes nearly empty with clear water to a level which is six inches (6") above the gravel. The drop that occurs during the final two (2) successive thirty (30) minute periods with less than a five percent (5%) difference shall be used to calculate the percolation rate. Percolation rates may also be determined by the volume of the water displaced from a reservoir when accurately determined and the water feeding device is such as to maintain a constant water level in the hole.

15.2.5 **Interpretation.** In interpreting percolation test results, emphasis shall be given to the highest percolation rates for the same type of soil, and this shall be rounded-up to the nearest whole number. The final interpretation of the soil percolation test result (s) shall be made by the Health Authority.

15.3 **Soil Borings**.

15.3.1 Soil borings shall be drilled to a depth of five feet (5') beyond the depth of the soil percolation test hole.

15.3.2 Soil borings shall indicate whether or not groundwater was encountered, and if groundwater was encountered, the depth shall be indicated.

15.4 **Soil Characterization.**

In lieu of soil percolation tests, the Health Authority may consider soil characterization methodologies in approving the design of soil absorption systems.

Section 16
INSPECTIONS OF INDIVIDUAL SEWAGE DISPOSAL SYSTEMS

16.1 Inspections by the Health Authority shall be required prior to covering the sewer line, septic tank and soil absorption system or commercial holding tank.

16.2 The Health Authority must have access to the property and area where the individual sewage disposal system is being inspected. Gates must be unlocked and animals restrained. If the property is located in a gated community, the gate access code must be provided.

16.3 All requests for inspections must be received by the Health Authority at least twenty-four (24) hours in advance. The request must include the septic system permit number, the Assessor's Parcel Number (APN) or the address for the property, along with the contact name and number of the person requesting the inspection.

16.4 The Health Authority reserves the right to schedule inspections in outlying areas on a particular day of the week **or** to reschedule inspections. The Health Authority also reserves the right to cancel an inspection if conditions on the property pose an immediate threat to human life or health.

16.5 A pre-site evaluation inspection by the Health Authority shall be required before application is made for a septic system permit in Mount Charleston, and any other environmentally sensitive area as determined by the Health Authority.

16.6 Inspections may be required by the Heath Authority for site surveys and evaluations.

16.7 For commercial holding tanks, the Health Authority must have access inside the modular/trailer to check for running water connection

16.8 In case of questionable soil conditions, inspections will be required prior to any installation.

16.9 Until the sewage disposal system inspection is approved by the Health Authority, there shall be no occupancy of the building

16.10 If the inspection of the individual sewage disposal system in **not approved**, a re-inspection fee will be applicable. The re-inspection fee shall be according to the current SNHD Environmental Health Fee Schedule. The re-inspection fee must be paid prior to scheduling another inspection.

~~16.11 Inspections of existing septic systems require the entire septic tank, entire header line and at least one (1) end cap closest to the structure to be uncovered at the time of inspection. The lids of the septic tank must be removed. The Health Authority reserves the right to charge an inspection fee according to the current SNHD Environmental Health Fee Schedule.~~

Section 17
REMOVAL AND ABANDONMENT OF SEPTIC TANK AND LEACH FIELD

17.1 An individual sewage disposal system (ISDS) may be abandoned due to replacement, failure, or connection to municipal sewer. If a septic system is being replaced and connection to municipal sewer is not required based on these Regulations, a new septic system permit shall be obtained from the Health Authority. This new septic system shall be inspected and approved by the Health Authority prior to being used for sewage disposal. If the property is being connected to municipal sewer, a receipt from the municipal sewer authority showing that the fees for sewer connection have been paid shall be submitted to Health Authority.

17.2 Abandonment of Septic Tank and Leach Field in Place.

17.2.1 Abandonment of Septic Tank.

17.2.1.1 The septic tank shall be pumped with pumping receipt submitted to the Health Authority from a Health Authority permitted liquid waste hauler.

17.2.1.2 The septic tank shall either be crushed **OR** filled with dry earth with proof provided to Health Authority in the form of receipts or before and after photos (from the same angle).

17.2.2 Abandonment of Leach Field.

17.2.2.1 A written note from the owner or contractor shall be provided to the Health Authority stating that the leach field is abandoned in place

17.3 If the septic tank is within eight feet (8') of an existing or future structure, it must be pumped and removed to a Health Authority approved disposal facility with receipts provided to the Health Authority. **Any part** of the leach field within eight feet (8') for a shallow absorption system or twenty feet (20') for a deep absorption system must also be removed with copies of receipts provided to Health Authority as listed above.

17.4 Removal of Septic Tank and Leach Field

17.4.1 Removal of Septic tank and leach field

17.4.1.1 The septic tank shall be pumped with a copy of the pumping receipt submitted to the Health Authority from a Health Authority permitted liquid waste hauler.

~~17.4.1.2 The septic tank shall be disposed of at a Health Authority approved disposal facility with receipts provided to the Health Authority.~~

~~17.4.1.3 Any stained soil shall be removed to the end of the stain mark or within a **two (2) feet maximum distance to the bottom and sides of the entire length and width of the leach field and leach lines** to a Health Authority approved disposal facility, and provide the Health Authority with receipts.~~

Chapter 9 – Decommissioning of ISDS

9-1 When Required

(A) An ISDS is decommissioned when it has been removed and disposed of or abandoned in place in accordance with this Chapter.

(B) An ISDS must be decommissioned in the following circumstances:

(1) The ISDS has failed and cannot be repaired without replacement or reconstruction of major system components, such as replacement of a tank or a section of the SOIL ABSORPTION SYSTEM;

(2) The ISDS will be or has been replaced;

(3) The ISDS is permanently disconnected from the structure served and has not been approved for subsequent use by another structure;

(4) The ISDS is no longer in use because the property will be or has been connected to a COMMUNITY SEWERAGE SYSTEM; or

(5) The HEALTH AUTHORITY issues an order requiring removal or abandonment of the ISDS.

(C) An ISDS may be abandoned except in the following circumstances:

(1) Any part of an ISDS that is within eight feet (8') of an existing or proposed structure must be removed; and

(2) Any part of a SOIL ABSORPTION SYSTEM that is within three feet (3') of a replacement SOIL ABSORPTION SYSTEM must be removed.

9-2 Removal and Abandonment Requirements

(A) All ISDS must be decommissioned according to the following procedure:

(1) The property owner or the property owner's representative must notify the HEALTH AUTHORITY of the intent to remove or abandon the ISDS;

(2) The SEPTIC TANK must be pumped by a LIQUID WASTE HAULER permitted by the HEALTH AUTHORITY;

(3) Pipes or plumbing attached to SEPTIC TANK must be disconnected or sealed;

(4) Electrical connections must be disconnected; and

(5) The ISDS must be abandoned in accordance with **Subsection 9-2(B)** or removed in accordance with **Subsection 9-2(C)**, as appropriate.

(B) An ISDS that will be abandoned must meet the following requirements in addition to the requirements of **Subsection 9-2(A)**:

(1) The lid of the SEPTIC TANK must be collapsed, the bottom ruptured, and the void leveled to the surrounding grade with sand, gravel, compacted soil, or other suitable inert material and completely covered with soil or material similar to that at the surface in the immediate area; and

(2) The property owner or the property owner's representative must provide documentation to the HEALTH AUTHORITY stating that the SOIL ABSORPTION SYSTEM is abandoned in place.

(C) An ISDS that will be removed must meet the following requirements in addition to the requirements of **Subsection 9-2(A)**:

(1) The SEPTIC TANK must be removed to a disposal facility approved by the HEALTH AUTHORITY; and

(2) The SOIL ABSORPTION SYSTEM, including any stained or contaminated soil, or a minimum of two feet (2') of soil surrounding the SOIL ABSORPTION FIELD, must be removed to a disposal facility approved by the HEALTH AUTHORITY.

9-3 Required Documentation

(A) The property owner or the property owner's representative must provide the HEALTH AUTHORITY with documentation demonstrating compliance with this Chapter, including, but not limited to:

(1) Receipt from the LIQUID WASTE HAULER that pumped the SEPTIC TANK;

(2) Receipt from each facility to which any waste from the ISDS was transported;

(3) Photo documentation showing that the SEPTIC TANK lid has been collapsed, the bottom ruptured, and the void leveled to the surrounding grade; and

(4) A written statement that the SOIL ABSORPTION SYSTEM has been abandoned in place.

(B) If the property is being connected to a COMMUNITY SEWERAGE SYSTEM, a receipt from the COMMUNITY SEWERAGE SYSTEM showing that the fees for sewer connection have been paid must be submitted to the HEALTH AUTHORITY.

Section 18

SOLID AND LIQUID WASTES: GENERATED FROM SEPTIC TANK, HOLDING TANK, CHEMICAL TOILET WASTE, OR GREASE INTERCEPTOR TANK OR INEDIBLE KITCHEN GREASE CONTAINERS, AND PUMPING AND HAULING CONTRACTORS (INCLUDING PETROLUEM HYDROCARBON CONTAMINATED WASTE WHICH MAY BE GENERATED BY SAND-OIL- WATER SEPARATORS)

18.1 **Waste permittee** means all persons engaged in the operation of removing, hauling and disposing of the solid and liquid contents of septic tanks, holding tanks, chemical toilets, grease interceptor tanks, inedible kitchen grease containers or sand-oil-water separators within Clark County. Permits must be obtained annually from the Health District.

18.2 **Permit Requirements.** This permit must contain the following information:

18.2.1 Type of waste to be hauled – liquid or effluent from septic tank, holding tank, chemical toilet, grease interceptor tank, inedible kitchen grease, and sand-oil-water separators. Liquid wastes from sand-oil-water separators must not be blended with other liquid wastes.

18.2.2 Location of all discharge points and type of waste discharged at each location

18.2.3 License number and state registration of each truck

18.2.4 Capacity of each truck

18.2.5 A statement signed by the vehicle operator that all waste material collected will be disposed of in accordance with these Regulations and that such waste will not be discharged to a waterway, sewer, or deposited on land without prior approval of the Health Authority.

18.3 **Septic tank waste** shall mean any sanitary waste from a septic tank for human waste at a residential or commercial location. None of these wastes shall contain industrial waste, toxic wastes, radiological waste, and/or hazardous waste as defined in the Resource Conservation and Recovery Act (RCRA), including its applicable regulations (RCRA, 40 CFR 26, a copy of which is on file with the Environmental Health Division of the District). The generator of a waste is responsible for the proper disposal thereof.

18.4 **Chemical toilet waste** shall mean any sanitary waste from a portable toilet or one-door movable sanitary facilities. None of the waste shall contain wastes prohibited in **Section 18.3.**

18.5 **Holding tank waste** shall mean sanitary waste from temporary holding tanks for commercial facilities. None of the wastes shall contain wastes prohibited in **Section 18.3.**

18.6 **Grease interceptor waste** shall mean non-petroleum based grease, oil, and fats generated with wastewater from fixtures and equipment such as, but not limited to, scullery sinks, pot and pan sinks, dishwashing machines, soup kettles and similar cooking equipment, trash compactors, floor drains in grease generating areas, and trash can washing areas of foodservice establishments.

18.7 **Inedible kitchen grease** shall mean fat or used cooking grease and oils obtained from kitchen grease generators.

18.8 **Industrial liquid waste** shall mean that which is generated by manufacturing or commercial process that is not a hazardous waste regulated within Subtitle C of RCRA (40 CFR 261). This includes sand-oil-water separators from automatic services, and equipment washing businesses.

18.9 **Vehicle identification.** The name, address, and phone number of the waste permittee and the permit number shall be legibly lettered on both sides of each vehicle used for activities defined herein. The size of the lettering shall be at least two inches (2"), placed on a contrasting background.

18.10 **Vehicle maintenance**. Every vehicle used for pumping or hauling of effluents set forth in **Section 18** shall be equipped with a watertight tank or body except when hauling solid inedible kitchen grease and be maintained in a clean and sanitary condition. Liquid wastes shall be maintained so as to prevent the release of a pollutant into the waters of the State.

18.11 **Portable receptacles**. All portable receptacles used for transporting liquid or septage wastes shall be watertight, equipped with tight-fitting lids, and shall be cleaned after each use.

18.12 **Disposal site.** Prior approval in writing shall be obtained from the Health Authority for every destination to which a septic tank, holding tank, chemical toilet, grease interceptor, or industrial liquid waste permit holder plans to discharge waste material collected. Liquid waste collected by the waste permittee shall only be discharged at an approved facility.

NOTE: Emergency sanitary waste disposal points will be established with the concurrence of the appropriate government official. The waste permittee will be responsible for notifying the Health Authority within 24 hours of the beginning of the emergency operation.

18.13 **Record keeping requirements concerning inedible kitchen grease**: Every waste permittee of inedible kitchen grease shall record, make available to the Health District as requested, and maintain for one year all of the following:

18.13.1 The name and address of each location from which the waste permittee obtained the inedible kitchen grease.

18.13.2 The quantity of grease received from each location.

18.13.3 The date on which the inedible kitchen grease was obtained from each location.

18.13.4 The name and address of the processing plant (renderer) to which the inedible kitchen grease was transported.

18.13.5 The date and quantity of inedible grease transported to the processing plant (renderer).

18.14 **Documentation and filing of reports.** Each waste permittee is required to keep accurate records via a manifest system approved by the Health Authority. This monthly audit trail of all liquid waste collected must include the generator/source; the amount removed for disposal including date and time of collection; vehicle permit number; and a proper receipt for discharge of the liquid waste at an approved disposal site.

18.15 **Automatic shutoffs.** All pumping equipment on waste permittee trucks shall be fitted with automatic shutoff valves.

18.16 **Suspension or Revocation of Waste Permittees' Permits**. Permits shall be subject to suspension or revocation by the Health Authority for violation of these Regulations, or Clark County Water Reclamation District Resolution No. 91-014, in accordance with the following procedures or permit conditions:

18.16.1 Staff shall serve upon the waste permittee, personally or by certified mail, a written, detailed statement of the charges against him together with a notice of hearing before the Health Authority stating the time, date, place, and purpose of the hearing.

18.16.2 The waste permittee may appear in person or with counsel, and shall be extended a full opportunity to call witnesses and produce evidence to counter the charges made against him.

18.16.3 The decision of the Health Authority in writing, shall contain findings of fact and conclusions of the law separately stated, and shall be served upon the waste permittee within 10 days of the hearing, personally or by certified mail.

18.16.4 The Heath Authority reserves the right to issue a temporary suspension order immediately effective, if a significant public health hazard exists.

~~18.7 **Fee(s).** Pursuant to NRS 439.360(5) and NRS 439.366(1), the Board adopts by reference the current SNHD Environmental Health Permit Fee Schedule as it applies to liquid waste haulers. All fees must be paid to the Health Authority prior to scheduling an inspection. All fees related to liquid waste haulers shall be non-refundable.~~

Chapter 10 – Liquid Waste Haulers

10-1 Permit Requirements

(A) A PERSON must not engage in the operation of removing or disposing of the contents of SEPTIC TANKS, HOLDING TANKS, grease traps, grease interceptors, portable toilets, or other SEWAGE treatment or disposal units unless the PERSON has an active LIQUID WASTE HAULER permit from the HEALTH AUTHORITY.

(B) Liquid wastes must be maintained in a sanitary manner to prevent a HEALTH HAZARD or nuisance and to prevent the release of a pollutant into the waters of the State.

10-1.01 Permit Applications

(A) A PERSON who applies for a LIQUID WASTE HAULER permit must apply to the HEALTH AUTHORITY in a manner or form approved by the HEALTH AUTHORITY.

(B) The application for a permit to operate as a LIQUID WASTE HAULER must contain the following information:

(1) The type of waste to be hauled by each vehicle;

(2) The location of all discharge points and the type of waste discharged at each location;

(3) A copy of the state registration of each vehicle;

(4) The license number, vehicle identification number, make, model, year, and color of each vehicle if not included in the registration documentation;

(5) The capacity of each vehicle;

(6) A description of each tank which is not physically affixed to a vehicle, including the information specified in **Subsection 10-1.01(B)(4)**;

(7) A copy of a business license:

(a) From the State of Nevada; and

(b) From the appropriate jurisdictions within Clark County.

(8) A statement signed by the owner of the LIQUID WASTE HAULER or the owner's representative that all waste material collected will be disposed of in accordance with these Regulations and that such waste will not be discharged to a waterway, sewer, or deposited on land without prior approval of the HEALTH AUTHORITY; and

(9) Any other information requested by the HEALTH AUTHORITY.

(B) The HEALTH AUTHORITY may require an inspection of the vehicles and tanks used for activities defined within this Chapter, as well as any related storage or maintenance facilities, to ensure that they comply with the requirements of this Chapter.

(C) The HEALTH AUTHORITY may deny an application for a LIQUID WASTE HAULER permit when the applicant has:

(1) Submitted an application which fails to meet the requirements of applicable law and these Regulations;

(2) Engaged in the operation of removing and disposing of solid and liquid contents of SEPTIC TANKS, HOLDING TANKS, grease traps, grease interceptors or other SEWAGE treatment or disposal units before obtaining a permit from the HEALTH AUTHORITY; or

(3) Failed to comply with the provisions of these Regulations.

10-1.02 Permit Renewal and Modification

(A) A permit to operate as a LIQUID WASTE HAULER is valid for one (1) year after the date of issuance.
(B) To renew a permit, the LIQUID WASTE HAULER must submit a completed application for renewal to the HEALTH AUTHORITY within 60 days before the date on which the permit expires.
(C) A LIQUID WASTE HAULER must request approval from the HEALTH AUTHORITY in a manner or form approved by the HEALTH AUTHORITY before doing any of the following, without limitation:
    (1) Using a vehicle which is not listed on the application;
    (2) Changing the type of waste to be hauled for any individual truck; or
    (3) Changing a point of discharge.

10-2 Operating Requirements

(A) Every vehicle used for activities defined within this Chapter must be:
    (1) Legibly labeled on both sides with the name, address, and phone number of the LIQUID WASTE HAULER and the permit number of the vehicle;
    (2) Equipped with a watertight tank or body except when hauling solid inedible kitchen grease; and
    (3) Maintained in a clean and sanitary condition.
(B) All portable receptacles used for transporting liquid or septage wastes must be watertight, equipped with tight-fitting lids, and must be cleaned after each use.
(C) All pumps and hose lines must be maintained to prevent leakage.
(D) All pumping equipment must be fitted with automatic shutoff valves.
(E) Liquid wastes from sand-oil-water separators must not be blended with other liquid wastes.

10-3 Disposal Site

(A) A LIQUID WASTE HAULER must obtain prior approval in writing from the HEALTH AUTHORITY for every destination to which it plans to discharge waste material collected.
(B) A LIQUID WASTE HAULER must not discharge waste material to any site that has not been approved by the HEALTH AUTHORITY.

10-4 Recordkeeping Requirements

(A) A LIQUID WASTE HAULER must maintain a record of each removal and disposal of waste by the LIQUID WASTE HAULER. The record must include:
    (1) The type of waste that was removed;
    (2) The number of the license plate of the vehicle that removed the waste;
    (3) The date, time, and location of the removal of the waste;
    (4) The date, time, and location of the disposal of the waste; and
    (5) A receipt from the waste disposal site or other written proof of proper disposal.
(B) The LIQUID WASTE HAULER must keep a record of each cleaning by the LIQUID WASTE HAULER of the interior of the portable receptacle or the tank of a vehicle that is used to remove or dispose of solid or liquid waste. The record must include:
    (1) The name of the employee who cleaned the portable receptacle or tank; and
    (2) The date, time and location of the cleaning of the portable receptacle or tank.
(C) The LIQUID WASTE HAULER must, in each vehicle used by the LIQUID WASTE HAULER to remove or dispose of solid or liquid waste, keep daily records of:
    (1) The removal and disposal of solid or liquid waste by the vehicle; and
    (2) The interior cleaning of the portable receptacle or the tank of the vehicle.

(D) A LIQUID WASTE HAULER that transports or receives recyclable waste must submit a recycling survey to NDEP in accordance with the most current edition of the *Southern Nevada Health District Solid Waste Management Authority Regulations*.

(E) The LIQUID WASTE HAULER must retain the records required by this Section for at least three (3) years after the date on which the solid or liquid waste was removed and disposed of or on which the interior of the portable receptacle or the tank was cleaned, as appropriate.

(F) The LIQUID WASTE HAULER must make the records required by this Section available to the HEALTH AUTHORITY upon request.

~~**Section 19**~~
~~**HEARING AND APPEALS**~~

~~19.1 Requests for variances from the provisions of these Regulations may be reviewed by the District Board of Health at its regular monthly meetings, in accordance with the following terms, conditions, and procedures.~~

Chapter 11 – Waivers and Variances

11-1 Waivers

(A) A PERSON seeking a waiver from any provision of these Regulations must apply to the HEALTH AUTHORITY in a manner or form approved by the HEALTH AUTHORITY.

(B) The waiver application must include:

(1) The name and address of the applicant;
(2) The street address, if any, and legal description of the affected property;
(3) The specific provisions of these Regulations for which a waiver is requested;
(4) A statement from the applicant explaining the reasons for seeking the waiver;
(5) Any documentation to support granting the waiver, including any mitigating measures that will be implemented;
(6) A detailed analysis of the environmental effects of the facility or proposed facility under the worst expected adverse conditions if the waiver is granted;
(7) A description of the extent to which the facility or proposed facility will affect the local environment and the public health under the worst expected adverse conditions if the waiver is granted;
(8) A description of any hardship to the applicant that will result from denial of the waiver;
(9) A description of any benefit to the environment and public health that will result from denial of the waiver; and
(10) Any other information required by the HEALTH AUTHORITY to enable it to process the application.

(C) The waiver application must be accompanied by a nonrefundable fee in the amount specified in the current SNHD Environmental Health Permit Fee Schedule.

(D) The HEALTH AUTHORITY may grant a waiver from a provision of these Regulations only when the applicant successfully demonstrates that the proposed waiver will:

(1) Comply with the intent of the specified provision and with the overall intent of these Regulations; and
(2) Provide equal or greater protection of public health and the environment as strict compliance with these Regulations.

(E) Approval of a waiver is not a matter or right and the decision to grant a waiver is in the sole discretion of the HEALTH AUTHORITY. A person aggrieved by a decision to deny a waiver may submit an application for a variance.

11-2 Variances

(A) A PERSON seeking a variance from any provision of these Regulations must apply to the HEALTH AUTHORITY in a manner or form approved by the HEALTH AUTHORITY.

(B) The variance application must include:

(1) The name and address of the applicant;
(2) The street address, if any, and legal description of the affected property;
(3) The specific provisions of the Regulations for which a variance is requested;
(4) A statement from the applicant explaining the reasons for seeking the variance;

(5) Any documentation to support granting the variance, including any mitigating measures that will be implemented;
(6) A detailed analysis of the environmental effects of the facility or proposed facility under the worst expected adverse conditions if the variance is granted;
(7) A description of the extent to which the facility or proposed facility will affect the local environment and the public health under the worst expected adverse conditions if the variance is granted;
(8) A description of any hardship to the applicant that will result from denial of the variance;
(9) A description of any benefit to the environment and public health that will result from denial of the variance; and
(10) Any other information required by the HEALTH AUTHORITY to enable it to process the application.

(C) The variance application must be accompanied by a nonrefundable application fee in the amount specified in the current SNHD Environmental Health Permit Fee Schedule.

~~19.2 **Application for Variances**~~

~~19.2.1 Persons seeking variances from any provision of these Regulations may apply for a variance order from the Board by filing a written application with the Environmental Health Division on forms provided by the Health Authority for that purpose.~~

~~19.2.2 The application shall include the following information:~~

~~19.2.2.1 The applicant's name and mailing address.~~

~~19.2.2.2 The property address.~~

~~19.2.2.3 The specific provision (s) of the Regulations for which variance is requested.~~

~~19.2.2.4 A brief statement from the applicant regarding the reasons for the variance.~~

~~19.2.2.5 Any information as may be required by the Health Authority to enable it to process the application.~~

~~19.2.2.6 The street address (if any) and legal description of the property affected.~~

~~19.2.2.7 A plot plan showing dimensions of the property, and the locations and dimensions of the proposed septic tank and leach field shown in relation to any structures on the property, whether proposed or already existing.~~

~~19.2.2.8 Evidence of an ownership interest in the affected property vested in the applicant.~~

~~19.2.2.9 The application shall be accompanied by a nonrefundable filing fee in the amount specified in the current SNHD Environmental Permit Fee Schedule.~~

11-3 Public Hearing Before the Board of Health

(A) The Board shall conduct a public hearing on the variance application.

(B) The following procedures apply to the hearing:

(1) HEALTH AUTHORITY staff shall provide the Board with a report, including relevant data and a recommendation, regarding the variance application, as well as comments provided by other government entities. A copy of the report must be made available to the applicant and general public no later than three days before the public hearing.

(2) Members of the Board may ask relevant questions of any person.

(3) Any person with a demonstrated interest in the application may present evidence but not testimony that is argumentative or redundant.

(4) The applicant has the burden of proof as to the necessity for the variance.

(5) At the conclusion of the hearing and after consideration of all the evidence presented concerning the requested variance, the Board will:

(a) Grant the variance, in whole or in part;

(b) Deny the variance, in whole or in part; or

(c) If further information is needed, continue the hearing until such time as the information is obtained.

(6) In granting a variance, the Board may impose such conditions as it deems necessary or desirable.

(7) Failure of the applicant to comply with any of the conditions imposed by the Board constitutes grounds for immediate revocation of the variance without notice or hearing.

(C) The Board may grant a variance from a regulation only if it finds from the evidence presented at the hearing that:

(1) There are circumstances or conditions which:

(a) Are unique to the applicant;

(b) Do not generally affect other persons subject to the regulation;

(c) Make compliance with the regulation unduly burdensome; and

(d) Cause a hardship to and abridge a substantial property right of the applicant; and

(2) Granting the variance:

(a) Is necessary to render substantial justice to the applicant and enable the applicant to preserve and enjoy his or her property right; and

(b) Will not be detrimental or pose a danger to public health and safety.

(D) Approval of a variance is not a matter of right and the decision to grant a variance under **Section 11.3(C)** is in the sole discretion of the Board.

(E) Whenever an applicant for a variance alleges that they suffer or will suffer economic hardship by complying with the regulation, the applicant must submit evidence demonstrating the costs of compliance with the regulation. The Board will consider the evidence and determine whether those costs are unreasonable.

(F) Within 14 days after the hearing, the Board will send the applicant a written decision concerning the variance via US Mail First Class to the address provided on the application. The decision will contain the Board's findings of fact on the matters described in **Section 11.3(C)** above and, if the variance is granted, will specify any conditions imposed by the Board and, in a case where appropriate, the date on which the variance expires.

(G) An applicant aggrieved by the decision of the Board may file a petition for judicial review with the Eighth Judicial District Court no later than 30 days after the date of the decision.

19.3 **Notice of Hearing**

19.3.1 The applicant shall be notified in writing of the date, time, and place of the hearing before the Board on application for variance, and of the right to appear and be heard at such hearing.

19.3.2 A notice of the hearing on the application shall be published at least once by the Health Authority in newspaper of general circulation published in Clark County, Nevada, best suited to give notice to the public in the area where the affected property is situated, at least fourteen (14) days before the hearing scheduled on the application. The notice shall state:

19.3.2.1 The name of the applicant.

19.3.2.2 The location of the property.

19.3.2.3 The nature of the variance requested.

19.3.2.4 The date, time, and place of the hearing.

19.3.2.5 That all interested persons are entitled to appear at the hearing and state their views or provide relevant information regarding the application, or to furnish the same in writing prior to the hearing.

19.3.2.6 The Health Authority shall mail a copy of the public notice to the property owners adjoining the affected property.

19.4 **The Hearing.** At the time and place set for the hearing, the Board shall utilize the following procedures:

19.4.1 Staff shall be asked to comment on the application and state their recommendation regarding the same. Staff will not recommend variance approval for septic systems on lots where municipal sewer is gravity accessible within four hundred feet (400') from the nearest property line.

19.4.2 The applicant, or authorized representative, shall be given an opportunity to address the Board and to present any additional evidence, if any, that may support the application.

19.4.3 Other interested persons may then address the Board and present evidence relevant to the application.

19.4.4 The Board shall then publicly consider the application and reach a decision; however, the final vote on the decision may be postponed until the next regular meeting of the Board.

19.4.5 No person shall be entitled to a variance as a matter of right, and the burden of proof as to the justification for the variance shall be on the applicant.

19.4.6 Formal rules of evidence are not applicable in conducting the hearing, but the Board may exclude redundant or irrelevant evidence or testimony.

19.1 **Criteria.** In reaching a decision on an application, the Board shall consider the relative interests of first, the public; second, other property owners likely to be affected; third, the applicant; in that order.

19.1.1 No variance shall be granted in the absence of a showing that:

19.1.1.1 The variance would not endanger or tend to endanger human health or safety.

19.1.1.2 Compliance with the Regulation from which the variance is sought would produce serious hardship without equal or greater benefits to the public.

19.1.1.3 The applicant shall comply with all other provisions of applicable law and Regulations in the installation and maintenance of the sewage disposal system and/or septic tank pumping contractor permits.

19.2 **The Order**

19.2.1 Within fourteen (14) days after the final decision of the Board, a formal written Variance Order shall be signed by the Chairman, Vice Chairman, or acting Chairman stating the decision of the Board, and personally delivered or mailed to the applicant address given on his application.

19.2.2 The Order shall describe the subject property, identify the specific sections of these Regulations from which the variance was sought, state the decision of the Board, and the findings of fact upon which it was based.

19.2.3 The Order shall also set forth any conditions imposed by the Board for the granting of the variance.

19.2.4 A copy of the Order shall be recorded in the office of the Clark County Recorder.

19.3 Duration of Variance

19.3.1 Variance for the installation of the sewage disposal system shall expire and be of no further force and effect twelve (12) months after it is granted unless the applicant or the successors in interest commence construction of the individual sewage disposal system within that period of time, or an extension of the variance is granted by the Board by application made within that period of time by the applicant or the successors in interest.

19.3.2 If ISDS construction has been started within twelve (12) months of the variance approval, and the ISDS permit expires, the variance may stand for the property as long as the applicant (s) for the variance continue(s) to be the owners of the property and no changes in the design/ plot plan are made. If the variance granted is to be considered for a new ISDS permit to replace the expired ISDS permit, the variance applicant (s) must re-apply for a ISDS Permit to construct (See **Section 2.2**).

19.3.3 All such variances are temporary. They are automatically revoked in the event a community sewerage system becomes available within four hundred feet (400') to which a connection can be made by gravity flow, and legal notice is given to the then record owner of the property requiring connection with such community sewerage system.

19.3.4 A variance may be revoked for failure of the property owner to comply with any of the conditions imposed thereon by the Board or a violation of other applicable laws and regulations, upon notice and hearing.

19.4 ISDS Hearing Officer Process

19.4.1 The District Board of Health shall appoint an Individual Sewage Disposal Systems Hearing Officer(s) who shall adjudicate alleged violations of all Individual Sewage Disposal Systems Regulations and matters for which a hearing is provided by law. The Hearing Officer(s) shall act independent of each other regarding decisions. The Hearing Officer(s) shall have a working knowledge of environmental health issues, arbitration, law and/or engineering.

19.4.2 Hearing Officer(s) shall be selected by the District Board of Health from qualified applicants to the Health District. Such individual(s) shall not be employees of the State or any political subdivision of the State. The Hearing Officer(s) will be an independent contractor who serves at the pleasure of the District Board of Health, paid in accordance with a fee schedule approved by the District Board of Health.

19.4.3 Adjudication by the Hearing Officer(s) of alleged violations of the Individual Sewage Disposal Systems Regulations shall be in accordance with the following:

19.4.3.1 All parties must be afforded an opportunity for a hearing after reasonable notice. The Notice must include a statement of the time, place and nature of the hearing; a reference to the particular sections of the statutes and regulations involved; and a short and plain statement of the matters asserted.

19.4.3.2 Any party may be represented by counsel.

19.4.3.3 Opportunity shall be afforded all parties to respond and present evidence and argument on all issues involved.

19.4.3.4 Each party may call and examine witnesses, introduce exhibits, cross-examination of opposing witnesses on any matter relevant to the issues even though the matter was not covered in the direct examination, impeach any witness, regardless of which party first called him to testify, and rebut the evidence against it.

19.4.3.5 Every witness shall declare, by oath or affirmation, that he will testify truthfully. Unless limited by a specific statute, the Hearing Officer(s) may administer oaths or affirmations to witnesses appearing before him in the hearing.

19.4.3.6 Irrelevant, immaterial or unduly repetitious evidence must be excluded. Evidence may be admitted, except where precluded by statute, if it is of a type commonly relied upon by reasonable and prudent persons in the conduct of their affairs. Effect shall be given to the rules of privilege recognized by law. Objections to evidentiary offers may be made and shall be noted in the record. Subject to these requirements, when a hearing will be expedited and the interest of the parties will not be prejudiced substantially, any part of the evidence may be received in written form.

` 19.8.3.7 The Hearing Officer(s) may issue subpoenas to compel attendance of any person at the hearing, and require the production of books containing compliance violation notices, records and other documents material to a hearing.

19.8.3.8 The Hearing Officer(s) may inquire of any witness following any segment of testimony.

19.8.3.9 Members of the public may testify in cases before the Hearing Officer(s).

19.8.3.10 All testimony shall be recorded verbatim, by human or electronic means. Any party requesting a transcript of any oral proceeding, or any part thereof, shall pay the cost thereof.

~~19.4.4 Upon the Hearing Officer(s) finding a violation has occurred, the Hearing Officer(s) shall levy such penalty, and require corrective action as he deems appropriate to the violation, subject to the following penalties per NRS 444.635:~~

~~19.4.4.1 For a first offense, at least $500 but not more than $5,000, per day;~~

~~19.4.4.2 For a second offense, at least $1,000 but not more than $5,500, per day;~~

~~19.4.4.3 For a third offense, at least $1,500 but not more than $6,000, per day;~~

~~19.4.4.4 For any subsequent offense, at least $500 more than the most recent previous penalty levied by the Hearing Officer, per day.~~

~~19.4.5 Factors to be considered by the Hearing Officer(s) in determining the amount of any penalty imposed pursuant to section **19.8.4** herein includes but are not limited to the following:~~

~~19.4.5.1 Failure to respond to compliance notices within the time (s) specified.~~

~~19.4.5.2 Gravity of the violation.~~

~~19.4.5.3 Environmental impact.~~

~~19.4.5.4 Public health impact.~~

~~19.4.6 The decision of the Hearing Officer(s) must be reduced to writing and shall be final 10 days after mailing to by certified mail, return receipt requested or personal service upon each party.~~

~~19.4.7 All penalties levied by the Hearing Officer(s) shall be paid to the Health District, and used only to pay for management of the Individual Sewage Disposal Systems program within the jurisdiction of the Environmental Health Division.~~

~~19.4.8 Failure to comply with any order of the Hearing Officer(s) requiring corrective action constitutes a separate violation of these regulations, and subjects the responsible party to additional cases of alleged violations with separate and additional penalties thereof.~~

~~19.4.9 Any party aggrieved by a decision of the Hearing Officer(s) may seek judicial review of the decision of the Hearing Officer(s), in accordance with the provisions of NRS 233B.130(2), and NRS 233B.131 through 233B.150, inclusive.~~

12-1 Denial, Suspension, and Revocation of Permits and Other Approvals

(A) The HEALTH AUTHORITY may deny, suspend, revoke, or refuse to renew any permit, waiver, variance, or any other approval issued under these Regulations for failure to comply with the conditions of the permit, waiver, variance, or approval, any provision of these Regulations, or any other applicable federal, state, or local law, regulation, ordinance, or code, or for any other basis provided in these Regulations.

(1) The HEALTH AUTHORITY shall send written notice to an applicant, property owner, permit holder, Certificate of Training holder, Service Provider, or any other responsible party of its intention to take action, including without limitation, denying, suspending, revoking, or refusing to renew a permit, waiver, variance, Certificate of Training, or other approval.

(2) A written notice issued by the HEALTH AUTHORITY pursuant to this Chapter must include:

(a) The statutory and regulatory authority for the action;

(b) The facts on which the action is based;

(c) Instructions for responding to the notice, including, without limitation:

(i) A statement of the right to any internal informal procedures for appeal;

(ii) The right to a hearing;

(iii) The period during which a hearing must be requested and the consequences of waiving a hearing; and

(iv) The effective date of the action.

(B) Service of the notice by the HEALTH AUTHORITY is considered complete upon personal service or mailing a copy of the notice to the address of record by both U.S. Mail First Class and certified mail.

(C) A party aggrieved by a decision to deny, suspend, revoke, or refuse to renew a permit, waiver, variance, or other approval may request a hearing by submitting a written request within 30 days of service of the written notice.

(D) A request for hearing must include:

(1) A clear, concise statement of all relief requested;

(2) Identification of all asserted legal bases for the relief requested, including citation to relevant law and regulation;

(3) Detail of relevant facts; and

(4) Copies of documents the aggrieved party will present at the time of hearing.

(E) A Hearing Officer will adjudicate any hearing regarding the suspension of, revocation of, or refusal to renew a permit in a public hearing.

(F) The Director of Environmental Health, or designee, will adjudicate any other hearing requested under these Regulations by an aggrieved party. At the sole discretion of the HEALTH AUTHORITY, a hearing under this provision may be heard by a Hearing Officer in a public hearing.

12-2 Orders

(A) The HEALTH AUTHORITY may issue a written order to any PERSON when the PERSON or property which the PERSON owns or is responsible for:

(1) Poses substantial hazards to public health or the environment;

(2) Fails to comply with any provision of these Regulations or a permit issued by the HEALTH AUTHORITY pursuant to these Regulations;

(3) Interferes with an agent of the HEALTH AUTHORITY in the performance of their duties; or

(4) Submits fraudulent, misleading, or inaccurate information to the HEALTH AUTHORITY.

(B) An order issued by the HEALTH AUTHORITY may require the recipient to:
  (1) Immediately cease and desist certain acts;
  (2) Take certain corrective action within a certain period of time;
  (3) Provide proof of compliance; and
  (4) Any other action necessary to protect public health or the environment.

(C) An order issued by the HEALTH AUTHORITY must:
  (1) State the nature of the violation and describe the attendant facts;
  (2) Specify the provision alleged to be violated;
  (3) Prescribe the necessary corrective action to be taken;
  (4) Provide a reasonable amount of time for completing the required corrective action; and
  (5) State the potential penalty if the corrective action is not completed.

(D) Any PERSON to whom an order is issued by the HEALTH AUTHORITY must comply with it as ordered.

(E) Service of an order by the HEALTH AUTHORITY is considered complete upon personal service or mailing a copy of the order to the address of record by both U.S. Mail First Class and certified mail.

(F) Upon written request to the HEALTH AUTHORITY received within five business days following service of the order, the PERSON will be afforded a hearing within 30 days of the date said request is received by the HEALTH AUTHORITY to contest the terms of the order.

12-3 Hearings

(A) Except for public hearings for variance applications, all hearings provided for in this Chapter must be conducted as provided herein.

(B) For hearings adjudicated by a Hearing Officer, the Hearing Officer will be selected by the HEALTH AUTHORITY's legal counsel.
  (1) The Hearing Officer must not be an employee of the State or any political subdivision of the State, or of any entity which is permitted or regulated pursuant to these Regulations.
  (2) The Hearing Officer will be an independent contractor paid in accordance with a fee schedule approved by the Southern Nevada District Board of Health.

(C) Based upon the evidence presented during the hearing, the Hearing Officer, Director of Environmental Health, or designee, will make appropriate findings and may sustain, modify, or rescind any official action or order considered in the hearing.

(D) A written order specifying the decision shall be furnished to the owner or other responsible party by the HEALTH AUTHORITY. Service of the decision is considered complete upon personal service or mailing a copy of the decision to the address of record by both U.S. Mail First Class and certified mail.

(E) A party aggrieved by the decision may file a petition for judicial review with the Eighth Judicial District Court no later than 30 days after the date of the decision.

(F) Nothing herein contained must be construed as denying any rights of appeal to the courts after the administrative remedies provided herein have been exhausted.

~~**Section 20**~~
~~**INTERPRETATION AND SEVERABILITY**~~

~~Where the context as requires, in interpreting these Regulations, the singular shall include the plural, the singular, the masculine gender and the feminine gender. Should any provision of these Regulations be held invalid or unconstitutional, such invalidity or unconstitutionality shall not affect the remaining provisions, and to this end the provisions hereof are declared to be severable. Paragraph headings are intended for convenience of identification only, and not as an aid to interpretation.~~