LCB File No. R100-07

PROPOSED REGULATION OF THE STATE BOARD OF HEALTH

ADDED SECTIONS START HERE

(NAC 444.750-444.8396)

Section 1. ***"Accessory structure" defined (NRS 439.200, 444.650) "Accessory structure" means a detached building to be used in conjunction with a single family dwelling that can include either a bathroom unit or kitchen unit, but not both. The term includes, without limitation, a workshop, home office, guest quarters, pool house or garage. For the purpose of this section, a bathroom unit consists of a bathtub or shower, toilet and bathroom sink located within a structure and a kitchen unit consists of a cooking stove, refrigerator and kitchen sink located within a structure.***

Section 2. ***"Approved service provider" defined (NRS 439.200, 444.650) "Approved service provider" means an entity approved by the administrative authority to provide maintenance on an alternative treatment system. The term includes, without limitation, a government agency, public utility, general improvement district or other entity approved by the administrative authority.***

Section 3. ***"Drainage channel" defined (NRS 439.200, 444.650) "Drainage channel" means a natural or man-made ditch that experiences water flow from storms or runoff from melting snow.***

AMENDED SECTIONS START HERE

Section 4. NAC 444.002 is hereby amended to read as follows:

NAC 444.002 Methods of sterilization. (NRS 439.200**,** 444.020**)** Sterilization or disinfection of used or secondhand articles listed in NAC 444.001 must be by one of the following methods, under the conditions outlined:

1. By thorough washing and sterilization by prolonged boiling for at least 1 hour.

2. By steam under 15 pounds pressure for at least 30 minutes. A gauge for registering steam pressure, visible from the outside of the room, must be provided where steam under pressure is used.

3. Two applications of streaming steam maintained for a period of 1 hour each to be applied at intervals of not less than 6 hours nor more than 24 hours will be accepted as an alternate for steam under pressure for disinfection of mattress materials or made-up mattresses. When streaming steam is employed, valved outlets must be provided near the bottom and top of room used for this purpose.

4. ***By application of a chemical pesticide registered or exempted by the United States Environmental Protection Agency and registered by the Nevada Department of Agriculture. The chemical pesticide shall:***

(a) clearly state on the label, or on printed matter included in each container or package, detailed instructions for its use in disinfecting secondhand articles;

(b) clearly state on the label that the pesticide is safe to use on bedding; and

(c) be applied in such a matter as to insure that disinfection is achieved.

~~[By treating with formaldehyde and sulphur concurrently in a moist atmosphere for a period of at least 12 hours in the following manner:~~

~~(a) Formaldehyde gas must be generated from the use of 1 pint of formaldehyde solution (37 percent) to each thousand cubic feet of air space, or through the use of any of the high-class commercial fumigators which generate an equivalent quantity of gas.~~

~~(b) Formaldehyde gas can be made by mixing 8 ounces potassium permanganate with 1 pint of formaldehyde.~~

~~(c) The directions for use are:~~

~~(1) Place potassium permanganate in a large galvanized pail and place pail in room to be fumigated.~~

~~(2) When everything is in readiness, add the formaldehyde and quickly close the door.~~

~~(d) Sulphur must be from the burning of 4 pounds of sulphur for each thousand cubic feet of air space.~~

~~(e) The moist atmosphere is provided by thoroughly sprinkling the floor of the room with warm water just prior to undertaking disinfection.~~

~~5. The lethal gas method embraces the use of hydrocyanic acid gas generated by the action of sulphuric acid on sodium cyanide. The gas generated is very effective and extremely poisonous. If this method is chosen, the room for sterilization must be separate from any living or working quarters and installed under strict approval of the State Health Officer or his authorized agents.]~~

Section 5. NAC 444.259 is hereby amended to read as follows:

NAC 444.259 Fees for permits and review of plans. (NRS 439.150**,** 439.200, 444.070**,** 444.080**)**

1. The Health Division shall charge and collect ~~[$125]~~ ***$402*** for each annual permit to operate a public bathing or swimming facility or natural bathing place, except in areas where the laws and regulations governing such facilities and bathing places are administered by local health authorities.

2. The Health Division shall charge and collect ~~[fees]~~ ***$325*** for reviewing plans for ***a new public bathing or swimming facility or natural bathing place,*** ~~[such facilities and bathing places as follows,]~~ except in areas where the laws and regulations governing the facilities and bathing places are administered by local health authorities. ~~[:~~

~~A plan for a new facility..... ..... $200~~
~~Plus an amount equal to the fee for an annual permit to operate a facility of the size under review.~~
~~A plan for remodeling a facility which has a permit..... ..... 200~~
~~Plus an amount equal to one-half of the fee for an annual permit to operate the facility after the remodeling.]~~

3. The Health Division shall charge and collect $262.50 for reviewing plans for a remodeled public bathing or swimming facility or natural bathing place, except in areas where

the laws and regulations governing such facilities and bathing places are administered by local health authorities.

Section 6. NAC 444.521 is hereby amended to read as follows:

NAC 444.521 Fees for permits and review of plans. (NRS 439.150**,** 439.200, 444.070**,** 444.080**)**

1. The Health Division shall charge and collect ~~[~~$170~~]~~ ***$332*** for ~~[~~the issuance of~~]~~ each annual permit ~~[~~for the operation of~~]~~ ***to operate*** a public spa, except in areas where the laws and regulations governing public spas are administered by local health authorities.

2. The Health Division shall charge and collect ~~[~~fees~~]~~ ***$370*** for reviewing plans ~~[~~of~~]~~ ***for a new*** public ***spa, except in areas where the laws and regulations governing public spas are administered by local health authorities.*** ~~[~~spas as follows:

~~For a plan of a new facility..... .... $200~~
~~Plus an amount equal to the fee for an annual permit to operate a spa having the area of the spa being reviewed.~~
~~For a plan to remodel a facility which has a permit..... ..... 200~~
~~Plus an amount equal to one-half of the fee for an annual permit to operate a spa having the area which the facility under review will have after the remodeling.]~~

3. The Health Division shall charge and collect $285 for reviewing plans for a remodeled public spa, except in areas where the laws and regulations governing public spas are administered by local health authorities.

Section 7. NAC 444.54635 is hereby amended to read as follows:

NAC 444.54635 Fees of Health Division. (NRS 439.150**,** 439.200**)**

1. The Health Division shall charge and collect fees for annual permits in accordance with the following schedule, except in areas where the laws and regulations governing facilities for sanitation for camping spaces are administered by local health authorities:

1. For a facility having 30 or less camping spaces..... $~~[145]~~***166***
2. For a facility having more than 30 camping spaces..... ~~[145]~~***$166***
Plus $1.50 for each camping space over 30 ~~[to a maximum of $1,000]~~.

2. The Health Division shall charge and collect the following fees for reviewing plans of such facilities for sanitation***, except in areas where the laws and regulations governing such facilities for sanitation for camping spaces are administered by local health authorities.***~~[:]~~

....
For a plan for a new facility..... $~~[100]~~***166***
Plus ***$1.50 for each camping space over 30*** ~~[an amount equal to the fee for an annual permit for the facility being reviewed]~~.
For a plan for remodeling a facility which has a permit..... ~~[100]~~***$100***
Plus ***$1.50 for each camping space over 30*** ~~[an amount equal to one-half of the fee for an annual permit to operate the facility after the remodeling.]~~

Section 8. NAC 444.5482 is hereby amended to read as follows:

NAC 444.5482 Fees. (NRS 439.150**,** 439.200**)** The Health Division shall charge and collect fees for a permit to operate a temporary mass gathering in accordance with the following schedule, except in areas where the laws and regulations governing temporary mass gatherings are administered by local health authorities:

For a permit to operate a temporary mass gathering with an anticipated attendance of:	Fee per day
1. 500 to 1,000 persons	$500
2. 1,001 to 5,000 persons	***$***750
3. 5,001 to 10,000 persons	***$***1000
10,001 or more persons	***$2644*** ~~[1,500]~~

Section 9. NAC 444.566 is hereby amended to read as follows:

NAC 444.566 Fees. (NRS 439.150**,** 439.200**,** 444.190**)**

1. ~~[For an annual permit to operate a labor camp, the]~~ ***The*** Health Division shall charge and collect ***fees for a permit to operate a labor camp in accordance with the following schedule $166*** ~~[$30]~~, plus $1.25 for each five workers above 30 workers in the camp, except in areas where the laws and regulations governing the sanitation of labor camps are administered by local health authorities.

2. The Health Division shall charge and collect the following fees for reviewing plans for labor camps as follows, except in areas where the laws and regulations governing the sanitation of labor camps are administered by local health authorities:

For a plan of a new camp..... ~~[$30]~~***$124***

Plus ***$1.25 for each five workers above 30.*** ~~[an amount equal to the fee for an annual permit to operate the camp.]~~

For a plan to remodel a camp which has a permit..... ~~[30]~~***$83***

Plus ***$1.25 for each five workers above 30.*** ~~[an amount equal to one-half of the fee for an annual permit to operate the camp after the remodeling.]~~

Section 10. NAC 444.56804 is hereby amended to read as follows:

NAC 444.56804 "Health authority" defined. (NRS 439.200**,** 444.335**)** "Health authority" ~~[has the meaning ascribed to it in NRS 439.005.]~~ ***means the officers and agents of the Health Division, or of the local boards of health.***

Section 11. NAC 444.56816 is hereby amended to read as follows:

NAC 444.56816 Adoption by reference of certain guidelines and standards. (NRS 439.200**,** 444.335**)** The State Board of Health hereby adopts by reference:

1. The guidelines for playground safety set forth in the *Handbook for Public Playground Safety***,** as those guidelines existed on the effective date of this regulation. A copy of the publication may be obtained, free of charge, from the United States Consumer Product Safety Commission, Office of Information and Public Affairs, Washington DC 20207, or from the United States Consumer Product Safety Commission, at the Internet address <http://www.cpsc.gov/cpscpub/pubs/playpubs.html>.

2. ~~[The standards for the construction, installation, maintenance, inspection and testing of a device to prevent backflow or back siphonage that is installed on a water supply system set forth in the Uniform Plumbing Code, 1997 edition. A copy of the standards may be obtained from the International Association of Plumbing and Mechanical Officials, 20001 East Walnut Drive South, Walnut, California 91789-2825, for the price of $51.60 for members of the International Association of Plumbing and Mechanical Officials, or $56.80 for nonmembers.]~~ ***The Recommended Practice on Lighting for Educational Facilities in the form most recently published by the Illuminating Engineering Society of North America. This publication is available by mail from the Illuminating Engineering Society of North America on-line at https://www.iesna.org/shop/ at a price of $50.***

3. The ~~[standards for minimum plumbing facilities set forth in the]~~ *Uniform Plumbing Code* ~~[, 1997 edition]~~ ***in the form most recently published by the International Association of Plumbing and Mechanical Officials.*** ~~[A copy of the standards may be obtained from the International Association of Plumbing and Mechanical Officials, 20001 East Walnut Drive South, Walnut, California 91789-2825, for the price of $51.60 for members of the International Association of Plumbing and Mechanical Officials, or $56.80 for nonmembers.]~~ ***This publication is available from the International Association of Plumbing and Mechanical Officials by telephone at 800-854-2766 at a price of $89.00.***

4. The standards of the American National Standards Institute set forth in the *American National Standard for Emergency Eyewash and Shower Equipment*, ANSI Z358.1, 1998 edition. A copy of the standards may be obtained from Global Engineering Documents, Customer Service Department, 15 Inverness Way East, Englewood, Colorado 80112, for the price of $48.

Section 12. NAC 444.5683 is hereby amended to read as follows:

NAC 444.5683 Lighting. (NRS 439.200**,** 444.335**)** Artificial sources of light that are permanently fixed in a school must be installed to provide ~~[at a distance of 30 inches from the floor:~~

~~1. At least 50 foot-candles of light in an area used to provide general instruction to pupils, including, without limitation, a laboratory, a classroom used for teaching home economics and an area used for teaching vocational education;~~

~~2. At least 30 foot-candles of light in a gymnasium, locker room or lavatory; and~~

~~3. At least 20 foot-candles of light in any other area of the school.]~~ ***lighting at illuminance levels at or greater than those prescribed in tables 1 and 2 of The Recommended Practice on Lighting for Educational Facilities.***

Section 13. NAC 444.761 is hereby amended to read as follows:

NAC 444.761 "Engineer" defined. (NRS 439.200**,** 444.650**)** "Engineer" means a person who is licensed by the ***Nevada*** State Board of Professional Engineers and Land Surveyors to practice professional engineering.

Section 14. NAC 444.7652 is hereby amended to read as follows:

NAC 444.7652 "~~[~~Nitrate~~]~~ *Nitrogen* removal wastewater treatment unit" defined. (NRS 439.200**,** 444.650**)** "~~[~~Nitrate~~]~~ *Nitrogen* removal wastewater treatment unit" means a system that receives sewage and, through biological denitrification, chemical reduction or ion exchange, reduces the ~~[~~nitrate~~]~~ ***nitrogen*** level of the effluent ~~[to less than 10 milligrams per liter, measured as total nitrogen]~~.

Section 15. NAC 444.777 is hereby amended to read as follows:

NAC 444.777 "Watercourse" defined. (NRS 439.200**,** 444.650**)** "Watercourse" means the bed or channel of a waterway. The term includes, without limitation, a river, creek, pond or lake, but does not include an irrigation ditch or drainage channel ~~[which experiences intermittent flow from storms or runoff from melting snow]~~.

Section 16. NAC 444.7825 is hereby amended to read as follows:

NAC 444.7825 Adoption of standards and publications by reference. (NRS 439.200**,** 444.650**)** The following provisions and publications are hereby adopted by reference:

1. Standards 40, 41 and 46 ~~[of the National Sanitation Foundation NRS]~~***, in the form most recently published by NSF*** International. These standards are available ~~[by mail]~~ from ~~[the National Sanitation Foundation]~~ ***NSF*** International~~[, 3475 Plymouth Road, Ann Arbor, Michigan 48105, or by telephone at (800) 673-6275]~~ ***by telephone at 800-699-9277 at a price of $95 each***. ~~[The prices are $70 for Standard 40, $70 for Standard 41 and $60 for Standard 46.]~~

2. *Standard Specifications for Public Works Construction*, ~~[1996 edition, as sponsored and distributed]~~ ***in the form most recently published*** by the Regional Transportation Commission of Washoe County, Washoe County, the City of Sparks, the City of Reno, Carson City and the City of Yerington. This publication is available ~~[by mail from the Regional Transportation Commission of Washoe County, 2050 Villanova Drive, Reno, Nevada 89502, or by telephone at (775) 348-0400, at a price of $35]~~ ***on-line at http://www.rtcwashoe.com/streets/orangebook/***.

3. The *Uniform Plumbing Code*, ~~[1997 edition, as adopted]~~ ***in the form most recently published*** by the International Association of Plumbing and Mechanical Officials. This publication is available ~~[by mail]~~ from the International Association of Plumbing and Mechanical Officials~~[, 20001 Walnut Drive South, Walnut, California 91789-2825, or]~~ by telephone at ~~[909) 595-8449,]~~ ***800-854-2766*** at a price of $~~[45.45, plus $2.05 for shipping and handling]~~***89.00***.

4. The *Design Manual for On-site Wastewater Treatment and Disposal Systems*, which is published by the Environmental Protection Agency (reference document number PB83-219907). This document is available by mail from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161, or by telephone at (800) 553-6847, at a price of $~~[81]~~***97***.50, plus $5 for shipping and handling.

Section 17. NAC 444.783 is hereby amended to read as follows:

NAC 444.783 ~~[Exemptions.]~~ *Approval for an Alternate Method of Compliance; Documentation.* (NRS 439.200, 444.650**)** ~~[Except as otherwise provided in this section, the health authority may grant a special exemption from any provision of NAC 444.750 to 444.8396, inclusive, to an owner of an individual sewage disposal system if the special exemption:]~~ ***The health authority may grant an owner of an individual sewage disposal system an approval for an alternate method of compliance from NAC 444 if the alternate method of compliance will not be detrimental to the public health, and involves the following:***

1. Is justified by an engineer ***if required by the Health Authority due to site conditions or proposed alternative treatment***;

2. Involves an advance in technology, improvement in materials, or alternative method of construction or operation***;*** ~~[that, in the opinion of the health authority, will not be detrimental to the public health;]~~ ***and***

3. Does not conflict with the provisions of subsection 1 of NAC 444.778 and paragraphs (a) to (d), inclusive, of subsection 2 of NAC 444.778.

Section 18. NAC 444.784 is hereby amended to read as follows:

NAC 444.784 Permits: Information required. (NRS 439.200**,** 444.650**)**

1. Approval must be obtained from the administrative authority to construct, alter or extend an individual sewage disposal system. This approval for new construction is required before any building permit may be issued for any structure which requires an individual sewage disposal system.

2. The request for approval must include:

(a) The name, address and current phone number of the applicant.

(b) The legal description of the property, including the lot and block number, township, range, section and assessor's parcel number, on which construction, alteration or extension is proposed.

(c) A plot plan.

3. The plot plan must include:

(a) The title and date of the plan and the signature of the owner or his representative.

(b) A map of the area in which the individual sewage disposal system will be located that shows the location of the roads and streets.

(c) The location and distance to well and sewage systems on surrounding lots. If the lots are vacant, the plot plan must so indicate.

(d) The direction of north clearly indicated.

(e) The distance within 500 feet to any watercourse indicated, including, without limitation, any pond, lagoon or stream. If there are no watercourses, the plot plan must so indicate.

(f) The location of each percolation test hole and boring test hole.

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

(h) Each component of the individual sewage disposal system, which must be properly marked and located at specified distances.

(i) The distance to city sewers. If there are none, the plot plan must so indicate.

(j) The distance of each well and soil absorption system to the property line.

(k) The scale to which the plan is drawn, such as 1 inch = 30 feet, 40 feet, 50 feet, 60 feet, etc.

(l) The number of bedrooms in the single-family dwelling or, if the request for approval is for a commercial system, the calculations used by the engineer to determine the minimum capacity of the commercial system.

(m) The capacity of the septic tank.

(n) The maximum slope across the absorption system area.

(o) The dimensions of the lot.

(p) The depth, length, width and spacing of any absorption trenches.

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

(r) The location of the structures, paved areas, driveways, trees and patios.

(s) The location of the source of water to be used by the individual sewage disposal system, including, without limitation, a well or other source approved by the administrative authority.

(t) The location of the reserve absorption area, which must be of a size not less than the size of the primary absorption area.

4. Soil characteristics, depth to water table and bedrock, percolation test results and design specifications must accompany the plot plan.

5. A permit issued under NAC 444.750 to 444.8396, inclusive, is deemed to be a temporary permit to operate an individual sewage disposal system. The operating permit is valid until:

(a) The individual sewage disposal system fails; or

(b) A community sewerage system is installed to service the area ***and is available at a property line of the lot***.

6. For the purposes of this section, an individual sewage disposal system shall be deemed to have failed if:

(a) A condition or malfunction occurs in the individual sewage disposal system, or in the operation of the system, that threatens the public health by inadequately treating sewage or by creating a potential for direct or indirect contact between sewage and the public, including, without limitation:

(1) Sewage on the ground;

(2) A backup of sewage into a structure that is caused by the slow soil absorption of effluent;

(3) Sewage leaking from a septic tank, dosing tank, holding tank or collection system; and

(4) Effluent contaminating the ground water or surface water; or

(b) The operator of the system fails to comply with the requirements of the permit issued to operate the system.

Section 19. NAC 444.786 is hereby amended to read as follows:

NAC 444.786 Permits: Denials; procedure for review of actions taken by health authority; appeals; validity and extension. (NRS 439.200**,** 444.650**)**

1. Except as otherwise provided in this subsection, an application for a permit for an individual sewage disposal system submitted to the health authority must be denied in writing and the reasons specified therefor if:

(a) The health authority determines that the proposed installation will not comply with NAC 444.750 to 444.8396, inclusive;

(b) Public or community sewerage systems are available ~~[within 400 feet of the nearest]~~ ***at the*** property line; or

(c) The proposed individual sewage disposal system is within the service area of a sewer company which provides sewage services that are subject to the jurisdiction of the Public Utilities Commission of Nevada or any local governmental entity, including, without limitation, a general improvement district, that has jurisdiction over the sewer services in that geographical area. A permit may be granted by the health authority if the ~~[Public Utilities Commission of Nevada or local governmental entity]~~ ***sewer company*** approves in writing the construction of the individual sewage disposal system within its service area or jurisdiction.

2. A person who has reason to believe that an action taken by the health authority pursuant to NAC 444.750 to 444.8396, inclusive, is incorrect or based on inadequate knowledge may, within 10 business days after receiving notice of the action, request an informal discussion with the employee responsible for the action and the immediate supervisor of the employee.

3. If the informal discussion does not resolve the problem, the aggrieved person may, within 10 business days after the date scheduled for the informal discussion, submit a written request to the Bureau for an informal conference. The informal conference must be scheduled for a date, place and time mutually agreed upon by the aggrieved person and the Bureau, except that the

informal conference must be held no later than 60 days after the date on which the Bureau received the written request.

4. Except as otherwise provided in subsection 5, the determination of the Bureau resulting from the informal conference cannot be appealed and is the final remedy available to the aggrieved person.

5. An applicant for or holder of a permit issued pursuant to NAC 444.750 to 444.8396, inclusive, who is aggrieved by an action of the health authority relating to the denial of an application for, or the suspension or revocation of, such a permit may appeal that action in accordance with NAC 439.300 to 439.395, inclusive, after exhausting the informal procedures set forth in this section, except that the Bureau may waive the informal procedures, or any portion thereof, by giving written notice to the aggrieved person.

6. A permit is void 12 months after the date of issuance if the proposed construction, alteration or extension of the individual sewage disposal system is not completed within that period. Upon the request of the holder of the permit, an extension of the permit may be granted in increments of 1 year if the appropriate fees are paid and the proposed plans meet the requirements of NAC 444.750 to 444.8396, inclusive.

7. As used in this section, "Bureau" means the Bureau of Health Protection Services of the Health Division of the Department of Human Resources or its successor.

Section 20. NAC 444.788 is hereby amended to read as follows:

NAC 444.788 Inspections. (NRS 439.200**,** 444.650**)**

1. Inspections may be required of the system materials and the trench before the trench is filled with aggregate or rock. Inspections by the administrative authority may be required before the sewer line, septic tank and soil absorption system may be covered. Inspections of alternative systems are required at intervals specified in NAC 444.750 to 444.8396, inclusive. If an engineer verifies that an individual sewage disposal system was constructed according to the plans approved by the administrative authority, the administrative authority may waive its inspection of the system.

2. Until the individual sewage disposal system has passed inspection by the administrative authority and a permit or other type of approval authorizing ~~[occupancy of the building]~~ ***use of the system*** has been issued, there must be no ***use of the system,*** occupancy of the building and no permanent electrical power connection to the property.

3. In an area in which there is a local administrative authority, review of designs and inspections for residential systems may be performed by city, district or county building inspectors.

Section 21. NAC 444.792 is hereby amended to read as follows:

NAC 444.792 Location. (NRS 439.200**,** 444.650**)**

1. Except as otherwise provided in this section, an individual sewage disposal system must be located on the same lot as the building or structure that the system serves. The administrative authority may approve the use of a part of an abutting lot to provide additional space for an individual sewage disposal system or any part thereof, if the owner of the individual sewage disposal system can show:

(a) Proper cause, including, without limitation, a legal right of the owner to use the abutting land as a result of a transfer of ownership of the abutting lot or an easement to use the abutting lot; and

(b) Use of the abutting lot for the individual sewage disposal system does not violate any other requirement of NAC 444.750 to 444.8396, inclusive.

2. The minimum horizontal separations that must be maintained between the perimeter of the components of an individual sewage disposal system and the following features are:

Minimum horizontal distance, in clear, required from:	~~[Building sewer drain]~~	Septic tank	Disposal field ~~[(shallow)]~~
Building or structure	~~[—]~~	8′	8′
Property line~~[s]~~	~~[10]~~	10′	10′
Water supply well~~[s]~~ (sealed to 50 feet)	~~[50]~~	100′	100′
Water supply well~~[s]~~ (not sealed to 50 feet)	~~[50]~~	100′	150′ ~~[*]~~
Public water supply well~~[s]~~	~~[50]~~	150′	150′ ~~[*]~~
Stream~~[s]~~ or watercourse~~[s]~~	~~[50]~~	100′	100′
Drainage channel~~[s]~~ or irrigation ditch	~~[25]~~	25′	25′
Large tree~~[s]~~or shrub~~[s]~~	~~[—]~~	10′	10′
Disposal field~~[s]~~	~~[—]~~	5′	—
Community water main line	~~[10]~~	10′	25′
Individual water service line	~~[10]~~	10′	25′
~~[Dry wells]~~	~~[—]~~	~~[6]~~	~~[20]~~

~~[* The required distance between a well and the components of an individual sewage disposal system may be increased by the administrative authority depending on the depth to the water table, soil profile and site characteristics.]~~

Section 22. NAC 444.798 is hereby amended to read as follows:

NAC 444.798 Approved cleanout; building sewer. (NRS 439.200**,** 444.650**)**

1. An approved cleanout must be installed ***on*** ~~[between the building drain and]~~ the building sewer line. The cleanout must be located within 3 feet of the structure or, if the cleanout cannot be placed within 3 feet of the structure, as close as practicable to the structure. At least one additional cleanout must be placed for each 100-foot increment of sewer line and for each aggregate change in the direction of the sewer line in excess of 90 degrees.

2. The building sewer between the house and the ~~[septic tank]~~ ***individual sewage disposal system*** must be approved pipe made of cast-iron, concrete, cement-asbestos or polyvinylchloride, with watertight joints.

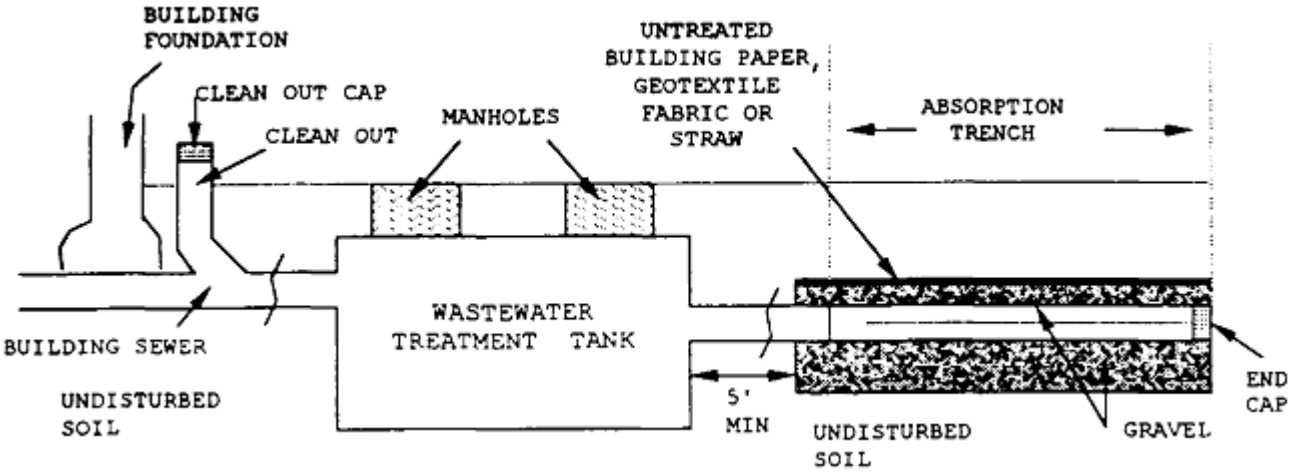
3. Except as otherwise provided in this section, the run of the building sewer, when practical, must be at a uniform slope of not less than 1/4 inch per foot from the building toward the point of disposal. If approved by the administrative authority, a building sewer which is:

(a) Not less than 4 inches or more than 6 inches in diameter may have a slope of not less than 1/8 inch per foot.

(b) Eight inches or more in diameter may have a slope of not less than 1/16 inch per foot.

4. A building sewer must be laid on undisturbed earth or well-compacted material. The top of the building sewer must be 12 inches or more below the final grade.

5. The following is a diagram of an individual sewage disposal system:



REVISER'S NOTE.

The regulation of the State Board of Health filed with the Secretary of State on March 25, 1999 (LCB File No. R129-98), the source of this section (section 118 of the regulation), contains the following provision not included in NAC:

"Sec. 118. The amendatory provisions of section 107 of this regulation [NAC 444.798] apply only to building sewer lines that are constructed or repaired on or after the effective date of this regulation [March 25, 1999]."

Section 23. NAC 444.818 is hereby amended to read as follows:

NAC 444.818 Limitations and site requirements. (NRS 439.200**,** 444.650**)**

1. Cesspools are prohibited.

2. The discharge of surface, rain and other clear water into an individual sewage disposal system is prohibited.

3. An absorption system that must be specially designed because of the limiting characteristics of the site must be designed by an engineer in accordance with the design criteria:

(a) That are set forth in NAC 444.8374 to 444.8396, inclusive, if the absorption system is an alternative absorption system; or

(b) That have been approved by the health authority.

4. An individual sewage disposal system is prohibited in any area subject to vehicular traffic or any area to be paved.

5. Sewage or any waste must not be discharged into any well, deep pit or mine shaft, or onto the ground surface.

6. Approved plans and specifications must not be revised except with written approval of the administrative authority.

7. If the soil has a fast percolation rate, the administrative authority may, depending on the characteristics of the soil and site, require:

(a) The plans for the system be designed especially for the site; and

(b) The setbacks from wells or watercourses, or both, be increased.

8. An individual sewage disposal system must be operated and maintained so as not to create a public hazard or nuisance, or cause water pollution.

9. ~~[With the approval of the administrative authority, an abandoned]~~ ***A*** septic tank ***that is no longer in use*** may be pumped, removed and disposed of. ~~[An abandoned]~~ ***A*** septic tank ***that is no longer in use and is to be abandoned in place*** must be filled with dirt or sand after being pumped. An excavation site created by the removal of a septic tank must be backfilled with suitable material that is compatible to the intended future use of the site.

10. To facilitate cleaning and maintenance operations, the installer of an individual sewage disposal system shall provide the owner with a diagram of the system. The diagram must include the location of the house, the septic tank, the cleanouts and the absorption system. This information must be kept on the premises regardless of changes in occupancy.

11. Any necessary bends in the individual sewage disposal system before the system enters the septic tank must be accomplished by the use of pipe fittings that are 45 degrees or less.

12. Every dwelling or habitation, including occupied trailers, must have an approved method of sewage disposal. The health authority may issue a permit for the temporary use of a holding tank at locations, including labor camps for construction or drilling projects, where an approved method of sewage disposal is not available. An application for a permit for the temporary use of a holding tank must include a copy of:

(a) A contract between the applicant and a licensed septic tank pumping contractor that provides for the removal and disposal of wastes from the temporary tank; and

(b) A letter from an approved sewage disposal treatment facility stating that the facility agrees to accept the wastes from the holding tank collected by the septic tank pumping contractor.

➥ A permit for the temporary use of a holding tank issued pursuant to this subsection is valid for 30 days and may be renewed as necessary.

13. The disposal of sewage must be through an approved individual sewage disposal system.

14. Provisions not covered by NAC 444.750 to 444.8396, inclusive, must meet the most restrictive requirements found in the current publication of the *Uniform Plumbing Code*.

15. Disposal fields must be located in unshaded, unobstructed areas.

16. Where a public water supply is unavailable, only one single-family dwelling per acre served by an individual sewage disposal system is allowed. For the purposes of this subsection, obtaining the approval of the Division of Water Resources of the State Department of Conservation and Natural Resources to use a well as municipal or quasi-municipal water use does not constitute a "public water supply." The administrative authority shall not allow any additional individual sewage disposal systems to be installed on the lot. ~~[A commercial system on a single lot may be authorized to serve two or more structures upon approval by the health authority if the structures and commercial system are owned by the same person.~~

~~17. The person to whom the ownership in commercial property served by an individual sewage disposal system is sold or transferred shall have a new design plan created to determine the suitability of the proposed new business with the existing individual sewage disposal system if:~~

~~(a) The proposed use of the buildings or structures is different from the current use; or~~

~~(b) The system has been dormant in excess of 1 year, regardless of the proposed use of the buildings or structures.~~

~~If the proposed use of the buildings or structures and the existing disposal system are incompatible, the health authority shall deny approval of the system until the system is modified so that the system and the proposed use of the buildings or structures are compatible.~~

~~18. An unattached structure that is separate from a single-family dwelling served by an approved individual sewage disposal system may be allowed to plumb into the individual sewage disposal system if:~~

~~(a) The unattached structure is or will be used in conjunction with the single-family dwelling; and~~

~~(b) The septic tank has sufficient capacity to accommodate the total number of fixtures in the single-family dwelling and the unattached structure as determined pursuant to subsection 3 of NAC 444.8312. For the purposes of this paragraph, each fixture unit must be rated at 25 gallons.~~**]**

Section 24. NAC 444.828 is hereby amended to read as follows:

NAC 444.828 Schedule of fees. (NRS 439.150**,** 439.200**,** 444.650**)** The Health Division shall charge and collect fees for its services in accordance with the following schedule, except in areas where the laws and regulations governing individual sewage disposal systems and septic tank pumping contractors are administered by another administrative authority:

1. For a permit to construct an individual sewage disposal system for a single-family dwelling, including a review of the plan for the system and an initial inspection of the system..... $**[**~~200~~**]*498***

2. For a permit to construct a residential system that utilizes an alternative treatment or disposal system design, including a review of the plan for the system and an initial inspection of the system..... $**[**~~250~~**]*498***

3. **[**~~For a permit to construct an individual sewage disposal system for a commercial building, including a review of the plan for the system and an initial inspection of the system.~~**]*For a review of a primary treatment unit*****..... $**[**~~250~~**]*498***

4. For the resubmission of ***or revision to*** a plan described in subsection 1, 2 or 3..... $**[**~~100~~**]*124***

5. For a reinspection of an individual sewage disposal system..... $100

6. For an inspection of a system described in subsection 1, 2 or 3 where such inspection is necessary to obtain a loan to purchase a piece of real property..... $133

7. For an annual permit for a septic tank pumping contractor..... $**[**~~150~~**]*332***

Plus $**[**~~50~~**]*322*** per year for each pumping unit to be authorized for use pursuant to the permit.

8. To extend a permit to construct an individual sewage disposal system for a 1-year period after the expiration date of the permit..... $**[**~~50~~**]*332***

~~**[**9. For an annual permit to operate a nitrate removal wastewater treatment unit..... $50~~

~~10. For an annual permit to operate an aerobic wastewater treatment unit..... $50~~**]**

Section 25. NAC 444.8302 is hereby amended to read as follows:

NAC 444.8302 General requirements for individual sewage disposal system used as commercial system. (NRS 439.200**,** 444.650**)**

[~~1.~~**]** The plans for an individual sewage disposal system designed for commercial use **[**~~which has a capacity of less than 5,000 gallons per day must be submitted for review to the health~~

~~authority for the county in which the proposed system will be located. If the capacity of the system is 5,000 gallons or more per day, the plans for the system~~**]** must be submitted for review to the Division of Environmental Protection of the State Department of Conservation and Natural Resources.

~~**[**2. An individual sewage disposal system that is or will be used as a commercial system must be designed by an engineer.~~

~~3. Except as otherwise provided in NAC 444.750 to 444.8396, inclusive, an individual sewage disposal system with design flow capacities of less than 5,000 gallons per day must meet all of the minimum setback requirements and design criteria specified in NAC 444.750 to 444.8396, inclusive.~~**]**

Section 26. NAC 444.8312 is hereby amended to read as follows:

NAC 444.8312 Capacity of septic tank serving *a single-family dwelling and accessory structure* ~~[certain commercial structures]~~. (NRS 439.200**, 444.650**)**

1. ***An accessory structure that is separate from a single-family dwelling served by an approved individual sewage disposal system may be allowed to plumb into the individual sewage disposal system if:***

(a) The accessory structure is or will be used in conjunction with the single-family dwelling; and

(b) The septic tank has sufficient capacity to accommodate the total number of fixtures in the single-family dwelling and the accessory structure as determined pursuant to the following table. For the purposes of this paragraph, each fixture unit must be rated at 25 gallons.

~~**[**The minimum capacity of a septic tank that is used to serve a commercial structure which is not otherwise covered by NAC 444.8308 or 444.831 must be:~~

~~(a) Calculated based on the estimated flow of sewage from the commercial structure, in accordance with the table set forth in subsection 2; and~~

~~(b) Calculated based on the number of fixture units in the commercial structure that will be served by the septic tank, in accordance with the table set forth in subsection 3.~~

~~The calculation that produces the greater septic tank capacity must be used to design the individual sewage disposal system for the commercial structure.~~

~~2. To determine the estimated flow of sewage from the commercial structure pursuant to paragraph (a) of subsection 1:~~

~~(a) Examine the following table and determine the occupancy or occupancies that most closely correlate to the intended occupancy of the commercial structure.~~

~~TYPE OF OCCUPANCY~~	~~ESTIMATED FLOW OF SEWAGE (GALLONS PER DAY)~~
~~Airports~~	~~15 per employee and 5 per customer~~
~~Automobile washes~~	~~5 per passenger vehicle~~
~~Bowling alleys~~	~~75 per lane~~
~~Camps:~~	~~-~~
~~Campground with central comfort station~~	~~35 per person~~
~~With flush toilets, no showers~~	~~25 per person~~

TYPE OF OCCUPANCY	ESTIMATED FLOW OF SEWAGE (GALLONS PER DAY)
— Day camps (no meals served)	15 per person
— Summer and seasonal	50 per person
Churches:	-
— Sanctuary only	5 per seat
— With kitchen facilities	7 per seat
Dance halls	5 per person
Factories:	-
— With showers	35 per employee
— Without showers	25 per employee
— With cafeteria facilities	Add 5 per employee
Hospitals:	250 per bed
— With kitchen facilities	Add 25 per bed
— With laundry facilities	Add 40 per bed
Institutions (Residential):	-
— General	75 per person
— Nursing homes	125 per person
— Rest homes	125 per person
Laundries:	-
— Self-service (open a minimum of 10 hours per day)	50 per wash cycle
— Commercial	Per manufacturer's specifications
Mobile home parks	250 per space
Offices	20 per employee
Picnic parks (with toilets only)	20 per parking space
Recreational vehicles:	-
— With water hookups	100 per space
— Without water hookups	75 per space
Restaurants and cafeterias:	20 per employee
— With toilets	Add 7 per customer

TYPE OF OCCUPANCY	ESTIMATED FLOW OF SEWAGE (GALLONS PER DAY)
With cocktail lounge	Add 2 per meal served
With garbage disposal	Add 1 per meal served
With kitchen waste	Add 6 per meal served
With kitchen waste, disposable service	Add 2 per meal served
Schools:	-
Teaching staff and other employees	20 per person
Kindergarten or elementary school	15 per pupil
Junior high school, middle school or high school	20 per pupil
With gym and showers	Add 5 per pupil
With cafeteria	Add 3 per pupil
Boarding school (including all waste)	100 per person
Service stations:	-
With toilets	1,000 for first bay
Each additional bay	Add 500
Stores:	-
Staff	20 per employee
With public restroom	1 per 10 square feet of floor space
Swimming pools (public)	10 per person
Theaters and auditoriums:	-
Indoor	5 per seat
Drive-in	10 per space

(b) If the estimated flow of sewage for the intended occupancy is 1,500 gallons or less per day, the minimum required capacity of the septic tank is equal to the estimated flow times 1.5.

(c) If the estimated flow of sewage for the intended occupancy is more than 1,500 gallons per day, the minimum required capacity of the septic tank is equal to the estimated flow times 0.75, plus 1,125 gallons.

3. To determine the number of fixture units in the commercial structure that will be served by the septic tank pursuant to paragraph (b) of subsection 1:

(a) Examine the following table and, for each type of fixture to be served by the septic tank, determine the number of such fixtures to be used and multiply that number by its corresponding number of fixture units:]

TYPE OF FIXTURE	FIXTURE UNITS
Bathtub	2
Bidet	2
~~[Dental unit or cuspidor~~	~~1]~~
Drinking fountain	1
Floor drain	2
Interceptor:	
For items such as grease, oil or solids	3
~~[For items such as sand or waste from automobile washes~~	~~6]~~
Laundry tub	2
Machine for washing clothes	2
~~[Receptor:]~~ ***Recreational vehicle sewer connection***	***6***
~~[Indirect waste receptor for items such as refrigerators, coffee urns or water stations~~	~~1~~
~~Indirect waste receptor for items such as commercial sinks, dishwashers or air washers~~	~~3]~~
Shower, single stall	2
Sink:	
Bar, private (1 1/2 in or 38.1 mm minimum waste)	1
~~[Bar, commercial (2 in or 50.8 mm minimum waste)~~	~~2~~
~~Commercial, industrial or school, including dishwashers, wash-up sinks, and wash-up fountains (2 in or 50.8 mm minimum waste)]~~Bathroom (single)	~~[3]~~***1***
~~[Flushing rim, clinic]~~ ***Bathroom (double)***	~~[6]~~***2***
~~[Residential]~~ ***Kitchen***, with or without dishwasher (2 in or 50.8 mm minimum waste)	2
Service	3
~~[Mobile home park trap (one for each trailer)~~	~~6~~
~~Urinal, pedestal, trap arm only~~	~~6~~
~~Urinal, stall, separate trap~~	~~2]~~
Urinal~~[s, wall mounted (2 in or 50.8 mm minimum waste), washout, separate trap]~~	2

TYPE OF FIXTURE	FIXTURE UNITS
~~[Urinal, wall mounted, washdown or siphon jet, integral trap, trap arm only~~	~~2~~
~~Urinal, wall mounted, blowout, integral trap, trap arm only~~	~~6~~
~~Washbasin (lavatory) single~~	~~1~~
~~Washbasin, in sets~~	~~2~~
~~Water closet, public installation, trap arm only]~~ Toilet	6

~~[(b) Add together the numbers calculated pursuant to paragraph (a) for each type of fixture. The sum represents the maximum number of fixture units that will be served by the septic tank. Based on that number, determine the minimum required capacity of the septic tank pursuant to the following table:~~

~~MAXIMUM NUMBER OF FIXTURE UNITS SERVED~~	~~SEPTIC TANK CAPACITY (GALLONS)~~
~~20~~	~~1,000~~
~~25~~	~~1,200~~
~~33~~	~~1,500~~
~~45~~	~~2,000~~
~~55~~	~~2,250~~
~~60~~	~~2,500~~
~~70~~	~~2,750~~
~~80~~	~~3,000~~
~~90~~	~~3,250~~
~~100~~	~~3,500~~

~~(c) If there are more than 100 fixture units, 25 gallons must be added to the minimum required capacity of the septic tank for each such additional fixture unit.]~~

Section 27. NAC 444.8314 is hereby amended to read as follows:

NAC 444.8314 Aerobic wastewater treatment unit: General requirements. (NRS 439.200**,** 444.650**)**

1. An aerobic wastewater treatment unit requires routine maintenance. The owner of an individual sewage disposal system that will include an aerobic wastewater treatment unit shall include in the design plans submitted to the administrative authority a maintenance agreement with ~~[a]~~ ***an approved*** service provider that covers the anticipated life span of the individual sewage disposal system.

2. The maintenance agreement for the individual sewage disposal system must include, without limitation, a yearly inspection of the system, and the components thereof, which verifies that the system is:

(a) Functioning correctly; and

(b) Producing effluent which has levels of total suspended solids and biological oxygen demand that are each 30 milligrams or less per liter.

3. ***At the request of the administrative authority, the owner of an individual sewage disposal system that includes an aerobic wastewater treatment unit must provide written documentation demonstrating that the maintenance required by subsection 2 has been performed.*** An aerobic wastewater treatment unit that produces effluent with a level of total suspended solids or biological oxygen demand that is more than 30 milligrams per liter must be repaired or replaced in accordance with this section and NAC 444.8316 and 444.8318 before the unit may be used.

4. If the administrative authority determines that the degradation of ground water or the constraints of the site warrant the need for an effluent which is of higher quality than that which would be provided by a septic tank, the administrative authority may require that the individual sewage disposal system include an aerobic wastewater treatment unit. If the administrative authority requires the use of an aerobic wastewater treatment unit pursuant to this subsection, the owner shall not construct or install on that site an individual sewage disposal system that does not include an aerobic wastewater treatment unit.

5. ~~[If the administrative authority requires the use of an aerobic wastewater treatment unit pursuant to subsection 4, the owner shall, in addition to submitting the design plans for the individual sewage disposal system to the administrative authority, apply to the administrative authority for an annual permit to operate the aerobic wastewater treatment unit. A permit for an aerobic wastewater treatment unit is valid for 1 year after the date of issuance. The owner shall include with the completed application for a permit or the renewal of a permit:~~

~~(a) The required fee for the permit; and~~

~~(b) A copy of a current maintenance agreement for the individual sewage disposal system and the aerobic wastewater treatment unit.]~~ ***An individual sewage disposal system that uses an aerobic wastewater treatment unit must be designed by an engineer.***

~~[6. The administrative authority shall issue or renew, as appropriate, a permit for an aerobic wastewater treatment unit:~~

~~(a) If the required fee has been paid;~~

~~(b) If there is a current maintenance agreement with a service provider for the individual sewage disposal system that includes the aerobic wastewater treatment unit; and~~

~~(c) If the individual sewage disposal system:~~

~~(1) Has not been used, the system has been otherwise approved and inspected by the administrative authority; or~~

~~(2) Is in use, the owner submits a report by the service provider for the individual sewage disposal system which states that the service provider has inspected the system at least once during the previous 12 months, the system is functioning correctly, and neither the level of total suspended solids nor the level of biological oxygen demand has exceeded 30 milligrams per liter.~~

~~7. A person who elects to use an aerobic wastewater treatment unit that is not otherwise required by the administrative authority pursuant to this section is exempt from the requirements for an annual permit set forth in subsections 5 and 6.]~~

Section 28. NAC 444.8316 is hereby amended to read as follows:

NAC 444.8316 Aerobic wastewater treatment unit: Design criteria. (NRS 439.200**,** 444.650**)**

1. An aerobic wastewater treatment unit must be approved by:

(a) ~~[The National Sanitation Foundation]~~ ***NSF*** International pursuant to its Standard 40;

(b) Any other equivalent nationally recognized testing laboratory approved by the health authority; or

(c) The health authority.

2. ~~[The owner of]~~ ***An application to construct*** an individual sewage disposal system that includes an aerobic wastewater treatment unit shall include ***evidence*** ~~[with the application for review of the system by the administrative authority:~~

~~(a) Evidence]~~ that the unit has been approved pursuant to subsection 1~~[; or~~

~~(b) The procedures used to test the unit]~~.

3. The use of an individual sewage disposal system that includes an aerobic wastewater treatment unit must be consistent with the approved design application and intended use for such a system.

4. An aerobic wastewater treatment unit must conform with all applicable provisions of the Nevada Administrative Code and is subject to any other requirements for design that are determined necessary by the administrative authority.

5. An administrative authority may authorize a reduction in the size of the absorption area if the administrative authority requires the use of an aerobic wastewater treatment unit pursuant to subsection 4 of NAC 444.8314. Any reduction in the size of the absorption area must be justified by an engineer based on the conditions of the soil and constraints of the site. No direct surface discharge is permitted.

6. Except in those cases where an aerobic wastewater treatment unit is required pursuant to subsection 4 of NAC 444.8314, an aerobic wastewater treatment unit must not be used where electrical service is unreliable, dependable maintenance is not available, or intermittent use of the aerobic wastewater treatment unit will adversely effect the functioning of the individual sewage disposal system.

7. The design plans for an aerobic wastewater treatment unit must include a schematic detailing a 24-hour operating alarm system for the aerobic wastewater treatment unit.

8. A manual for the operation and maintenance of an aerobic wastewater treatment unit must be submitted to the administrative authority with the design plans. The administrative authority shall not approve an aerobic wastewater treatment unit if an operation and maintenance manual has not been submitted with the design plans and approved by the administrative authority.

REVISER'S NOTE.

The regulation of the State Board of Health filed with the Secretary of State on March 25, 1999 (LCB File No. R129-98), the source of this section (section 116 of the regulation), contains the following provision not included in NAC:

"Sec. 116. The amendatory provisions of section 60 of this regulation [NAC 444.8316] apply only to aerobic wastewater treatment units that are constructed or repaired on or after the effective date of this regulation [March 25, 1999]."

Section 29. NAC 444.8318 is hereby amended to read as follows:

NAC 444.8318 Aerobic wastewater treatment unit: Inspection. (NRS 439.200**,** 444.650**)**

1. The construction of an aerobic wastewater treatment unit must be inspected and verified by an engineer ~~[or, if the unit is designed by a homeowner as part of a residential system for his home, the homeowner]~~. The inspections must be conducted when:

(a) The absorption trenches have been excavated or, if an elevated mound system is to be used, when the basal area of the mound has been scarified;

(b) The distribution piping has been placed in the aggregate;

(c) The system has been covered with soil; and

(d) All the pumps, switches, alarms, aeration units and other components associated with the individual sewage disposal system have been installed. The engineer or homeowner, as appropriate, shall verify that the operational liquid levels are set as specified by the design plans.

2. ~~[For a residential system designed by a homeowner that includes an aerobic wastewater treatment unit:~~

~~(a) The homeowner shall contact the administrative authority for an inspection of the system; and~~

~~(b) The administrative authority shall inspect the construction of the system,~~

~~before the covering is placed on the system, to ensure that the system complies with the approved plans.~~

~~3. If an individual sewage disposal system that includes an aerobic wastewater treatment unit is designed by an engineer, the]~~ ***The*** engineer shall, within 30 days after the date on which the construction of the system is completed, submit a letter to the administrative authority stating that the system was constructed in accordance with the approved plans.

Section 30. NAC 444.8321 is hereby amended to read as follows:

NAC 444.8321 ~~[Nitrate]~~ *Nitrogen* removal wastewater treatment unit: General requirements. (NRS 439.200**,** 444.650**)**

1. A ~~[nitrate]~~ ***nitrogen*** removal wastewater treatment unit requires routine maintenance. The owner of an individual sewage disposal system that will include a ~~[nitrate]~~ ***nitrogen*** removal wastewater treatment unit shall include in the design plans submitted to the administrative authority a maintenance agreement with ~~[a]~~ ***an approved*** service provider that covers the anticipated life span of the individual sewage disposal system.

2. The maintenance agreement for the individual sewage disposal system must include, without limitation, a yearly inspection of the system, and the components thereof, which verifies that the system is:

(a) Functioning correctly; and

(b) Producing effluent ~~[which has nitrate levels that are 10 milligrams or less per liter, measured as total nitrogen.]~~ ***with nitrogen level reductions that are consistent with the manufacturer's performance specifications.***

3. ***The owner of an individual sewage disposal system that includes a nitrogen removal wastewater treatment unit must maintain, for the life of the system, written documentation demonstrating that the maintenance required by subsection 2 has been performed at intervals not to exceed 12 months. At the request of the administrative authority, the owner must provide the documentation for review.*** A ~~[nitrate]~~ ***nitrogen*** removal wastewater treatment unit that produces effluent with ~~[a level of nitrate that is more than 10 milligrams per liter, measured as total nitrogen,]~~ ***nitrogen level reductions that are not consistent with the manufacturer's performance specifications*** must be repaired or replaced in accordance with this section and NAC 444.8322 and 444.8324 ~~[before the unit may be used]~~.

4. If the administrative authority determines that the degradation of ground water or the constraints of the site warrant the need for an effluent which is of higher quality than that which would be provided by a septic tank, the administrative authority may require that the individual

sewage disposal system include a ~~[nitrate]~~ ***nitrogen*** removal wastewater treatment unit. If the administrative authority requires the use of a ~~[nitrate]~~ ***nitrogen*** removal wastewater treatment unit pursuant to this subsection, the owner shall not construct or install on that site an individual sewage disposal system that does not include a ~~[nitrate]~~ ***nitrogen*** removal wastewater treatment unit.

5. ~~[If the administrative authority requires the use of a nitrate removal wastewater treatment unit pursuant to subsection 4, the owner shall, in addition to submitting the design plans for the individual sewage disposal system to the administrative authority, apply to the administrative authority for an annual permit to operate the nitrate removal wastewater treatment unit. A permit for a nitrate removal wastewater treatment unit is valid for 1 year after the date of issuance. The owner shall include with the completed application for a permit or the renewal of a permit:~~

~~(a) The required fee for the permit; and~~

~~(b) A copy of a current maintenance agreement for the individual sewage disposal system and the nitrate removal wastewater treatment unit.]~~ ***An individual sewage disposal system that uses a nitrogen removal wastewater treatment unit must be designed by an engineer.***

6. ~~[The administrative authority shall issue or renew, as appropriate, a permit for a nitrate removal wastewater treatment unit:~~

~~(a) If the required fee has been paid;~~

~~(b) If there is a current maintenance agreement with a service provider for the individual sewage disposal system that includes the nitrate removal wastewater treatment unit; and~~

~~(c) If the individual sewage disposal system:~~

~~(1) Has not been used, the system has been otherwise approved and inspected by the administrative authority; or~~

~~(2) Is in use, the owner submits a report by the service provider for the individual sewage disposal system which states that the system has been inspected at least once during the previous 12 months, the system is functioning correctly and the nitrate level is 10 milligrams or less per liter.~~

~~7. A person who elects to use a nitrate removal wastewater treatment unit that is not otherwise required by the administrative authority pursuant to this section is exempt from the requirements for an annual permit set forth in subsections 5 and 6.]~~ ***The approved maintenance provider shall develop and submit to the health and administrative authorities a regulatory oversight program for the use of nitrogen removal wastewater treatment units. The regulatory oversight program shall include, without limitation, the legal description of each lot to be included in the program, the type and frequency of maintenance to be conducted, maintenance reporting requirements and provisions for non-compliant occupants of a dwelling served by a nitrogen removal wastewater treatment unit. Until both the health and administrative authorities approve the regulatory oversight program in writing, the administrative authority shall not approve nitrogen removal wastewater treatment units for use.***

Section 31. NAC 444.8322 is hereby amended to read as follows:

NAC 444.8322 ~~[Nitrate]~~ *Nitrogen* removal wastewater treatment unit: Design criteria. (NRS 439.200, 444.650**)**

1. A ~~[nitrate]~~ ***nitrogen*** removal wastewater treatment unit must be approved by:

(a) ~~[The National Sanitation Foundation]~~ ***NSF*** International pursuant to its Standard 40;

(b) Any other equivalent nationally recognized testing laboratory approved by the health authority; or

(c) The health authority.

2. ~~[The owner of]~~ ***An application to construct*** an individual sewage disposal system that includes a ~~[nitrate]~~ ***nitrogen*** removal wastewater treatment unit shall include ***evidence*** ~~[with the application for the review of the system by the administrative authority:~~

~~(a) Evidence]~~ that the unit has been approved pursuant to subsection 1~~[; or~~

~~(b) The procedures used to test the unit.]~~

3. The use of an individual sewage disposal system that includes a ~~[nitrate]~~ ***nitrogen*** removal wastewater treatment unit must be consistent with the approved design application and intended use for such a system.

4. A ~~[nitrate]~~ ***nitrogen*** removal wastewater treatment unit must conform with all applicable provisions of the Nevada Administrative Code and is subject to any other requirements for design that are determined necessary by the administrative authority.

5. An administrative authority may authorize a reduction in the size of the absorption area if the administrative authority requires the use of a ~~[nitrate]~~ ***nitrogen*** removal wastewater treatment unit pursuant to subsection 4 of NAC 444.8321. Any reduction in the size of the absorption area must be justified by an engineer based on the conditions of the soil and constraints of the site. No direct surface discharge is permitted.

6. Except in those cases where a ~~[nitrate]~~ ***nitrogen*** removal wastewater treatment unit is required pursuant to subsection 4 of NAC 444.8321, a ~~[nitrate]~~ ***nitrogen*** removal wastewater treatment unit must not be used where***:***

(a) The unit requires electrical power and the electrical service is unreliable~~[,]~~***; or***

(b) D~~[d]~~ependable maintenance is not available~~[,]~~***;*** or

(c) If the residence will be occupied on a part-time basis and intermittent use of the ~~[nitrate]~~ ***nitrogen*** removal wastewater treatment unit will adversely effect the functioning of the individual sewage disposal system.

7. The design plans for a ~~[nitrate]~~ ***nitrogen*** removal wastewater treatment unit must include a schematic detailing a 24-hour operating alarm system for the nitrate removal wastewater treatment unit.

8. A manual for the operation and maintenance of a ~~[nitrate]~~ ***nitrogen*** removal wastewater treatment unit must be submitted to the administrative authority with the design plans. The administrative authority shall not approve a ~~[nitrate]~~ ***nitrogen*** removal wastewater treatment unit if an operation and maintenance manual has not been submitted with the design plans and approved by the administrative authority.

REVISER'S NOTE.

The regulation of the State Board of Health filed with the Secretary of State on March 25, 1999 (LCB File No. R129-98), the source of this section (section 117 of this regulation), contains the following provision not included in NAC:

"Sec. 117. The amendatory provisions of section 63 of this regulation [NAC 444.8322] apply only to nitrate removal wastewater treatment units that are constructed or repaired on or after the effective date of this regulation [March 25, 1999]."

Section 32. NAC 444.8324 is hereby amended to read as follows:

NAC 444.8324 ~~[Nitrate]~~ *Nitrogen* removal wastewater treatment unit: Inspections. (NRS 439.200, 444.650**)**

1. The construction of a ~~[nitrate]~~ ***nitrogen*** removal wastewater treatment unit must be inspected and verified by an engineer ~~[or, if the unit is designed by a homeowner as part of a residential system for his home, the homeowner]~~. The inspections must be conducted when:

(a) The absorption trenches have been excavated or, if an elevated mound system is to be used, when the basal area of the mound has been scarified;

(b) The distribution piping has been placed in the aggregate;

(c) The system has been covered with soil; and

(d) All the pumps, switches, alarms, aeration units and other components associated with the individual sewage disposal system have been installed. The engineer or homeowner, as appropriate, shall verify that the operational liquid levels are set as specified by the design plans.

2. ~~[For a residential system designed by a homeowner that includes a nitrate removal wastewater treatment unit:~~

~~(a) The homeowner shall contact the administrative authority for an inspection of the system; and~~

~~(b) The administrative authority shall inspect the construction of the system,~~

~~before the covering is placed on the system, to ensure that the system complies with the approved plans.~~

~~3. If an individual sewage disposal system that includes a nitrate removal wastewater treatment unit is designed by an engineer, the~~**]** ***Following inspection, the*** engineer shall, within 30 days after the date on which the construction of the system is completed, submit a letter to the administrative authority stating that the system was constructed in accordance with the approved plans.

Section 33. NAC 444.8356 is hereby amended to read as follows:

NAC 444.8356 Absorption trench system: Inspections. (NRS 439.200, 444.650**)**

1. If a residential system that is designed by a homeowner includes absorption trenches:

(a) The homeowner shall contact the administrative authority for an inspection before covering the system; and

(b) The administrative authority shall inspect the construction of the system, before the covering is placed on the system, to ensure that the system complies with the approved plans. ***If approved by the administrative authority, the system construction may be verified by photographic documentation provided by the homeowner in lieu of an on-site inspection.***

2. If an individual sewage disposal system that includes absorption trenches is designed by an engineer, the engineer shall, within 30 days after the date on which the construction of the system is completed, submit a letter to the administrative authority stating that the system was constructed in accordance with the approved plans.

Section 34. NAC 444.8362 is hereby amended to read as follows:

NAC 444.8362 Absorption bed: Inspections. (NRS 439.200, 444.650**)**

1. The construction of an individual sewage disposal system that includes an absorption bed must be inspected and verified by an engineer or, if the system is designed by a homeowner as part of a residential system for his home, the homeowner. The inspections must be conducted as follows:

(a) Following excavation, the bottom of the absorption bed must be examined to ensure that there is no loose soil and that no smearing conditions exist; and

(b) Upon completion of the installation of the distribution lines in the absorption bed, the individual sewage disposal system must be inspected to ensure that the system complies with the approved design plans.

2. If a residential system that includes an absorption bed is designed by a homeowner:

(a) The homeowner shall contact the administrative authority for an inspection; and

(b) The administrative authority shall inspect the construction, before the covering is placed on the system, to ensure that the system complies with the approved plans. ***If approved by the administrative authority, the system construction may be verified by photographic documentation provided by the homeowner in lieu of an on-site inspection.***

3. If an individual sewage disposal system is designed by an engineer, the engineer shall, within 30 days after the date on which construction of the system is completed, submit a letter to the administrative authority stating that the system was constructed in accordance with the approved plans.

Section 35. NAC 444.8366 is hereby amended to read as follows:

NAC 444.8366 Chamber system: Design criteria. (NRS 439.200, 444.650**)**

1. The health authority shall provide a sizing chart for each chamber system which it approves. The sizing chart must list the number of chamber units required for a specific size of septic tank and percolation rate.

2. The percolation rate of the soil on which a chamber system is placed must not be slower than 60 minutes per inch.

3. The invert of the drain piping entering the first chamber of the system must ***not be*** ~~[be not less than 12 inches or]~~ more than 48 inches below the finished grade. ***The trench depth for a system utilizing chambers must not be more than 5 feet below the finished grade.*** The top of the chamber system must be at least 6 inches below the natural soil surface, and a capping fill must be placed over the top of the chamber system to allow for settling.

4. The absorption trenches for a chamber system must not be longer than 110 feet.

5. Excavations for absorption trenches for a chamber system must be spaced so that there is at least 6 feet between the trenches, as measured from the centerline of the trenches.

6. The bottom of the excavation for an absorption trench to be used in a chamber system must be level. The owner must take such precautions as are necessary to avoid compacting the bottom of the trench. Loose or smeared soil must be raked and removed. No vehicles may travel on the area of an absorption trench after the excavation of the trench.

7. Dosing is required if more than 500 linear feet of absorption trench are required.

8. If a chamber system is used in conjunction with an absorption bed rather than an absorption trench, the chamber system and the absorption bed must comply with the requirements relating to the sizing for absorption beds set forth in NAC 444.8358 and 444.8361. The sizing chart provided by the health authority pursuant to this section must not be used to size an absorption bed in which a chamber system will be placed.

Section 36. NAC 444.8368 is hereby amended to read as follows:

NAC 444.8368 Chamber system: Inspections. (NRS 439.200, 444.650**)**

1. The construction of an individual sewage disposal system that uses a chamber system must be inspected and verified by an engineer or, if the unit is designed by a homeowner as part of a residential system for his home, the homeowner. The inspections must be conducted as follows:

(a) Following excavation, the bottom of each absorption trench or the bottom of the absorption bed, as appropriate, must be inspected to ensure that there is no loose soil and that no smearing conditions exist; and

(b) Upon completion of the installation of the chambers in the absorption trenches or absorption bed, the individual sewage disposal system must be inspected to ensure that the

chamber system and the trenches or bed, as appropriate, have been constructed and installed in accordance with the design plans.

2. If a residential system that includes a chamber system is designed by a homeowner:

(a) The homeowner shall contact the administrative authority for an inspection; and

(b) The administrative authority shall inspect the construction of the residential system, before the covering is placed on the system, to ensure that the system complies with the approved plans. ***If approved by the administrative authority, the system construction may be verified by photographic documentation provided by the homeowner in lieu of an on-site inspection.***

3. If an individual sewage disposal system is designed by an engineer, the engineer shall, within 30 days after the date on which the construction of the individual sewage disposal system is completed, submit a letter to the administrative authority stating the system was constructed in accordance with the approved plans.

Section 37. NAC 444.839 is hereby amended to read as follows:

NAC 444.839 Elevated mound system: Design criteria. (NRS 439.200, 444.650**)**

1. An elevated mound system must not be constructed on a slope that is:

(a) Greater than 6 percent, if the soils comprising the slope have percolation rates that are slower than 60 minutes per inch; or

(b) Greater than 12 percent, if the soils comprising the slope have percolation rates that are equal to or faster than 60 minutes per inch.

2. At least 4 feet of unsaturated soil or fill material, or any combination thereof, must be maintained between the top of the seasonal high ground water table or any impervious barrier such as bedrock. On sloping sites, the depth of unsaturated soil and fill material must be increased to maintain a level bed.

3. Percolation tests must be conducted at the depth anticipated by the engineer as being the point of interface of the native soil and sand fill, and at a depth of 20 inches below the surface of the native soil. The size of the required basal area of the elevated mound system must be based on the slowest percolation rate.

4. The fill material for the elevated mound system must meet the following criteria:

Sieve Size	Percent by Weight Passing Sieve
3/8 inch	100
No. 4	95-100
No. 8	80-100
No. 16	45-85
No. 30	15-60
No. 50	3-15
No. 100	0-4

5. Whenever practical, the bed for an elevated mound system must be a rectangular bed with a long axis that is parallel to the contour of the slope to minimize the possibility of seepage from the base of the elevated mound. ~~[If the natural soil has a percolation rate that is slower than 60 minutes per inch, the bed must be made narrow and extend along the contour of the slope as far as practical.]~~ ***The minimum area of the bed shall be based on an estimated flow of 150 gallons per day per bedroom and a design application rate of 1.2 gallons per day per square foot.*** The bed must be filled with at least 9 inches of clean, graded aggregate that ranges in size from 3/4 to 2 1/2 inches.

6. The basal area of an elevated mound system must be sufficiently large enough to absorb the wastewater before it reaches the perimeter of the elevated mound to avoid the surfacing of the effluent. ***The minimum basal area shall be based on the minimum required septic tank size required by NAC 444.8306 and a design infiltration rate*** ~~[The infiltration rates for determining the size of the basal area of an elevated mound system are]~~ as follows:

Percolation Rate (minutes per inch)	Infiltration Rate (gallons ~~[per day]~~ per square foot)
0-30	1.2
31-45	.75
46-60	.50
61-120	.25

7. If the site on which an elevated mound system will be located is:

(a) Flat, the entire basal area, calculated as length multiplied by width, must be used to determine the area needed for the elevated mound system.

(b) Sloping, only the area below and down slope from the absorption bed, calculated as W x (A + I), must be used to determine the area needed for the elevated mound system, where:

(1) "W" equals the width of the absorption bed;

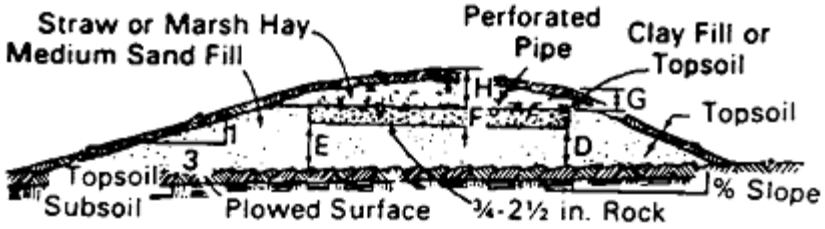
(2) "A" equals the length of the absorption bed; and

(3) "I" equals the required side slope of the elevated mound system as measured from the edge of the absorption bed to the perimeter of the mound in accordance with subsection 8.

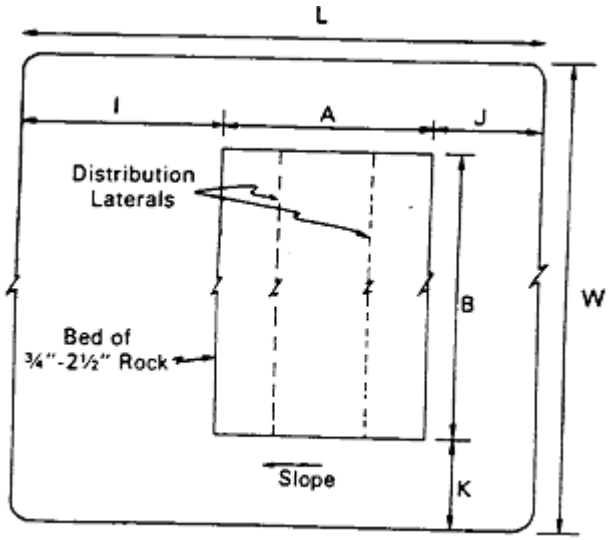
8. The side slopes of the elevated mound system must extend in a horizontal to vertical ratio that is at least 3 to 1. The entire absorption bed must be covered with at least 1 foot of topsoil. The topsoil cap, which must be placed at the center of the mound, must maintain a minimum slope of 2 percent away from the crown. Untreated building paper, straw, geotextile fabric, or any similar covering approved by the health authority, must be placed over the aggregate in the absorption bed before the topsoil is placed.

9. At least one observation standpipe which extends down to the fill sand must be installed in the absorption bed.

10. The following is a diagram of an elevated mound:



(A) Cross Section



(B) Plan View

DELETED SECTIONS START HERE

Section 38. NAC 444.7602 is hereby amended to read as follows: (DELETED)

NAC 444.7602 "Dry well" defined. (NRS 439.200, 444.650**)** "Dry well" means a covered excavation in the ground which receives the discharge of clear rainwater, surface water or ground water collected in a footing or drain.

Section 39. NAC 444.8308 is hereby amended to read as follows: (DELETED)

NAC 444.8308 Capacity of septic tank serving multiple-dwelling structure. (NRS 439.200, 444.650**)**

1. The minimum capacity of a septic tank that is used to serve a multiple-dwelling structure must be calculated based on the number of units in the structure, in accordance with the following table:

Number of Units Within the Multiple-Dwelling Structure	Minimum Septic Tank Capacity (in Gallons)
2	1,200
3	1,500
4	2,000
5	2,250
6	2,500
7	2,750
8	3,000
9	3,250
10	3,500

2. If there are more than 10 units in a multiple-dwelling structure, 250 gallons for each such additional unit must be added to the minimum capacity determined pursuant to subsection 1.

3. For the purposes of determining the minimum capacity of a septic tank pursuant to subsection 1, each unit in a multiple-dwelling structure shall be deemed to contain only one bedroom. If any unit in the multiple-dwelling structure contains more than one bedroom, 150 gallons for each such additional bedroom must be added to the minimum capacity determined pursuant to subsection 1.

Section 40. NAC 444.831 is hereby amended to read as follows: (DELETED)

NAC 444.831 Capacity of septic tank serving hotel or motel. (NRS 439.200, 444.650**)**

1. The minimum capacity of a septic tank that is used to serve a hotel or motel must be calculated based on the estimated flow of sewage from the hotel or motel, which shall be deemed to be 60 gallons per day for each bed within the hotel or motel that is a double bed or larger in size. If the total estimated flow of sewage from the hotel or motel:

(a) Is 1,500 gallons or less per day, the minimum capacity of the septic tank is equal to the total estimated flow times 1.5.

(b) Is more than 1,500 gallons per day, the minimum capacity of the septic tank is equal to the total estimated flow times 0.75, plus 1,125 gallons.

2. For the purposes of this section, two twin beds shall be deemed to be equivalent in size to one double bed.