

Summary of Amendments to NMED Petition EIB 12-01 (R)
Proposed Amendments to 20.7.3 NMAC
May 2, 2012

New or re-written material is highlighted in yellow.

20.7.3.2 SCOPE:

- B. 20.7.3.306 and **809]808** NMAC apply to the disposal of on-site septage and holding tank wastes.

20.7.3.7 DEFINITIONS: As used in 20.7.3 NMAC.

...

- A. Terms starting with the letter ‘A’ are defined as follows:

(~~4~~5) “alternative disposal” means any approved on-site liquid waste disposal method used in lieu of, including modifications to, a conventional disposal method; ~~[these include but are not limited to, privies, cluster systems, composting/incineration toilets, mounds, evapotranspiration [beds], subsurface irrigation, holding tanks, graywater systems, alternating drainfields, non-discharging constructed wetlands, non-gravity systems, approved surface applications and pressure dosed systems;]~~

(~~5~~6) “amendment of permit” means a change that does not affect the permitability of a liquid waste system, including a change of ownership or **contractor installer**, and is not a “modification” as defined in this section;

- C. Terms starting with the letter ‘C’ are defined as follows:

(~~12~~13) “conventional treatment system” means an on-site liquid waste system utilizing both conventional treatment and conventional disposal; ~~[for fee purposes only,]~~ “conventional treatment system” includes privies, holding tanks and vaults.

- N. Terms starting with the letter ‘N’ are defined as follows:

(1) “New Mexico plumbing code” means 14.8.2 NMAC; and

(2) ~~{RESERVED}~~ **“non-discharging system” means a watertight system that allows no discharge of wastewater except through evaporation, transpiration or pumping, including, but not limited to, lined evaporation systems, lined evapotranspiration systems, holding tanks and vaults.**

20.7.3.8 GENERAL PROVISIONS:

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B. Alternative Resources: When guidance is sought in areas not covered by 20.7.3 NMAC, the most recent version of the following resources may provide guidance. In cases where reference to these alternative resources is proposed the department shall make the final determination of applicability.

- (1) The American national standards institute (ANSI) book of codes.
- (2) The American society for testing and materials (ASTM) testing manual.
- (3) The international association of plumbing and mechanical officials (IAPMO) codes.
- (4) The National sanitation foundation (NSF) standard 40, standard 41, and standard 46.
- (5) EPA design manuals for onsite wastewater treatment and disposal systems.
- (6) USDA soil survey manuals.
- (7) New Mexico administrative code.
- (8) Wisconsin mound soil absorption system: siting, design and construction manual, university of Wisconsin-Madison.

(9) other technical publications.

20.7.3.201 PROCEDURES; GENERAL REQUIREMENTS:

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A. Every owner shall be responsible for the storing, treating and disposing of liquid waste generated on that property. Every owner shall be responsible for ensuring that the liquid waste system on that property and any excavation related to the liquid waste system do not pose a public safety hazard.

[M]L. Nothing contained in 20.7.3 NMAC shall be construed to prevent the department from requiring compliance with more stringent requirements than those contained herein, where the department finds that such more stringent requirements are necessary to prevent a hazard to public health or the degradation of a body of water. The following parameters may be considered when determining if a body of water is potentially vulnerable to degradation from liquid waste effluents, and if more stringent requirements may be necessary to prevent such degradation:

- (1) a water-table aquifer (includes both unconfined and semi-confined conditions) with a vadose zone thickness of 100 feet or less containing no soil or rock formation that would act as a barrier to saturated or unsaturated wastewater flow;
- (2) sites within one quarter (1/4) mile of a known groundwater plume of anthropogenic anoxic or nitrate contamination caused by migration through undisturbed vadose zone, provided that the site overlies the same aquifer;
- (3) an aquifer overlain by fractured bedrock;
- (4) an aquifer in karst terrain; and
- (5) a gaining stream or other body of water impacted by nutrients from liquid waste systems.

O. Determining Eligibility for permitting under 20.7.3.2 NMAC, which restricts effluent flow to 2000 gallons per day or less, shall be determined as follows:

(1) For residential sources, Wastewater flow from residential sources shall be calculated [assuming two (2) persons per bedroom for the first two (2) bedrooms and one (1) person per additional bedroom in a single family dwelling unit and sixty (60) gallons per person per day] at 80% of the design flow as determined according to Subsection P of 20.7.3.201 NMAC. Multiple family dwelling unit wastewater flows shall be calculated as the sum of wastewater flows for each single family unit included.

(2) Wastewater flows for nonresidential sources shall be based on Table 201.1 or generally accepted references (such as the New Mexico plumbing code or the USEPA design manual: *on-site wastewater treatment and disposal systems*).

(3) Wastewater flows for nonresidential sources also may be based on:

(a) professional engineering design calculations that bear the seal and signature of a professional engineer licensed in New Mexico, pursuant to the New Mexico engineering and surveying practice act and the rules promulgated under that authority. Such calculations shall be reviewed by a department engineer, as appropriate; or

(b) the submittal of actual metered water use or effluent flow meter data. To use actual meter data to establish wastewater flow, the applicant must present at least one year of existing meter data collected within the previous five years. Calculate the daily wastewater flow according to the following formula:

$$\frac{A}{B} \left[x \left(\frac{1}{\text{occupancy}} \right) \right] = Q$$

Where: A = highest quarterly totalized meter reading (in gallons) for minimum one year period

B = total number of days in highest metered quarter

[occupancy = percentage of residential units that are used as living quarters by at least one person during the metering period, expressed as a decimal equal to or greater than 0.50, calculated as a weighted average]

Q = daily wastewater flow in gallons per day

[For meter data representing a period of continuous full occupancy, use 1.0 in the formula above. Meter data that includes periods with less than fifty percent occupancy will not be accepted for purposes of determining wastewater flow. The percent occupancy shall be demonstrated by documentation acceptable to the department, such as daily or weekly occupancy logs, detailed rental income records or other similar records. Applicants who submit meter data that results in a wastewater flow equal to or exceeding 1500 gallons per day shall make meter records available for inspection by the department. If a permit is issued, meter records for any quarter that result in a flow exceeding 2000 gallons per day, when calculated according to this section, shall be submitted to the department within 30 days. In addition, quarterly records for the following two quarters shall be submitted. If meter data from any of the

~~succeeding quarters exhibit calculated wastewater flows in excess of 2000 gallons per day, the permit shall be void and the permittee will be referred to the ground water quality bureau.]~~

Meter data or certification by a professional engineer shall not be used to determine wastewater flow on exclusively residential properties consisting of less than five residential units. If meter data is not representative of the actual wastewater discharge, as determined by the department, the applicant may be required to submit additional meter data or the department may disallow the use of meter data where its use would result in a gross misrepresentation of the wastewater discharge.

The department may require a calibration of the meter used for determining water or wastewater flow and may disallow the use of inaccurate meter data. Applicants may be required to make future records of metered flow available for inspection by the department.

If a permit is issued, meter records for any quarter that indicate the daily wastewater flow exceeds 2000 gallons per day, quarterly meter records for the following two quarters shall be submitted to the department within 30 days of becoming available to the permittee. If meter data or other information available to the department indicates the average daily wastewater flow has exceeded 2000 gallons per day, the department may void the permit and refer the facility to the ground water quality bureau. The department may require a tamper-proof type meter be installed to verify that future wastewater flows do not exceed 2000 gallons per day.

P. ~~[Design flows shall be calculated as follows:]~~ Determining treatment and disposal system design flow:

(1) For residential sources, the design flow shall be ~~[calculated assuming two (2) persons per bedroom for the first two (2) bedrooms and one (1) person per additional bedroom in a single family dwelling unit and seventy five (75) gallons per person per day;]~~ based on the number of bedrooms as follows:

- ~~(a) 1 bedroom = 150 gallons per day;~~
- ~~(b) 2 bedrooms = 300 gallons per day;~~
- ~~(c) 3 bedrooms = 375 gallons per day;~~
- ~~(d) 4 bedrooms = 440 gallons per day;~~
- ~~(e) 5 bedrooms = 500 gallons per day; and~~
- ~~(f) additional bedrooms = 50 gallons per day.~~

Design flows for multiple family dwelling units ~~[source design flows]~~ shall be calculated as the sum of design flows for each single family unit included. ~~[; and]~~

(2) ~~[design flows for nonresidential sources shall be based on Table 201.1 or generally accepted references (such as the uniform plumbing code or the USEPA design manual: on-site wastewater treatment and disposal systems); design flows for nonresidential sources also may be based on professional engineering design calculations; total design flows may be determined by the submittal of metered water use or effluent flow data and shall be multiplied by a safety factor of 1.5 for design flow calculations.]~~

~~Where nonresidential wastewater flow is calculated based upon Table 201.1 or generally accepted references, no design factor is necessary to determine the design flow except as noted in Paragraph (3) below.~~

(3) For residential and nonresidential facilities with highly variable flows not certified by a professional engineer, a design factor greater than 1.5 may be required to be applied to determine the design flow. Alternatively, flow equalization or other methods of accommodating peak flows may be used with department approval.

(4) Where residential and nonresidential wastewater flow is certified by a professional engineer, no design factor is necessary to determine the design flow, unless deemed appropriate by the professional engineer.

(5) Where residential or nonresidential wastewater flow is determined using existing meter data and calculated in accordance with Subparagraph (b) of Paragraph (3) of Subsection O of 20.7.3.201 NMAC, a design factor of 1.5 ~~[is necessary]~~ shall be applied to the daily average flow to determine design flow. ~~[or as-] An additional peaking factor may be required in accordance with Paragraph (3) above. Metered data shall not be used to determine design flow on properties consisting of less than four residential units.]~~

(6) ~~[The department may require calibration or replacement of the meter used for determining wastewater use. The department may require a tamper proof type of meter be installed.]~~ If the design flow could increase significantly beyond existing meter data due to increased occupancy or facility size, the department may require that additional area be available for future expansion of both the treatment and disposal systems.

20.7.3.202 PROCEDURES; MODIFICATION OF EXISTING SYSTEMS:

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E. Upon modification of any part of the system, [A]an approved effluent filter shall be installed in accordance with Subsection [C]H of 20.7.3.502 NMAC and access risers installed over the tank inlet and outlet access openings in accordance with Subsection D of 20.7.3.502 NMAC.

20.7.3.203 PROCEDURES; CONSTRUCTION INSPECTIONS AND TESTING:

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B. Upon granting the permit or variance application, if the department determines an inspection is necessary, the department shall indicate the point in the construction process where the first construction inspection is to be scheduled or in accordance with Subparagraph A of this section.

(1) The person doing the work authorized by the permit shall notify the department, orally or in writing, to schedule an inspection time, [orally or in writing,] a minimum of 2 working days prior to the inspection. The department may assess a re-inspection fee if the work is not ready for inspection at the time of the scheduled inspection. In the event the inspection is not conducted within one hour after the appointed time of inspection, the [contractor]installer shall take photographs that accurately identify the site and features of the installation and proceed with the installation. Copies of such photographs shall be submitted to the department.

20.7.3.306 STANDARDS; SEPTAGE: Disposal of septage shall occur only at a permitted facility with the knowledge and consent of the facility owner, and shall not cause a hazard to public health nor degrade a body of water. Transport and disposal of septage shall be in conformance with applicable federal, state and local regulations. Septage pumpers shall keep customer invoices and disposal records for three years and shall, upon written request by the department, make such records available to the department for inspection.

20.7.3.401 PERMITTING; GENERAL REQUIREMENTS:

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J. Unpermitted conventional systems installed or modified prior to February 1, 2002 may be issued a certificate of registration for continued operation if, after evaluation by a qualified person:

(1) the treatment unit is pumped by a septage pumper hired by the system owner [and inspected by the department] and the unit is determined to be watertight, is functioning properly and the tank has a liquid capacity within one tank size of the capacity required in Subsection Q of 20.7.3.201 NMAC;

(2) the liquid waste system [meets the]appears to meet setback and clearance requirements [in effect at the time of the initial installation] based on [an]a non-intrusive [inspection]evaluation;

(3) the [treatment unit and] disposal system appears to be functioning properly; [and]

(4) meets the lot size requirements of the regulation in effect at the time of the initial installation, or in effect at the time of the most recent permitted modification;

(5) the system does not constitute a public health or safety hazard; and

([4]6) the appropriate permit fee is paid for the system installed.

If any of the above conditions are not met, a certificate of registration cannot be issued and an application for modification pursuant to Section 20.73.202 NMAC must be submitted.

K. Unpermitted conventional systems installed or modified on or after February 1, 2002 may be permitted if:

M. The installation or modification of an on-site liquid waste system shall be in accordance with the permit and all regulatory requirements of 20.7.3 NMAC. Any change from the permitted installation or modification, including a change of [contractor]installer, must receive department approval prior to implementation. An amendment to the permit shall be submitted within seven (7) days of the completion of the installation.

Q. An installer whose New Mexico construction industries division license number is on a permit approved by the department for construction may, upon written notice to both the permittee and to the department, withdraw from the permit. Upon installer withdrawal, the permit approval shall be suspended until the permittee amends the permit either to include another licensed installer or to reflect approval as a qualified homeowner in accordance with Subsection A of 20.7.3.904 NMAC. Construction of the liquid waste system shall not proceed until the permit amendment is approved by the department. If the contractor withdraws after construction has

commenced, the owner shall eliminate any public safety hazards posed by open treatment systems, excavations or other conditions related to unfinished construction.

20.7.3.501 DESIGN; LIQUID WASTE TREATMENT UNITS; GENERAL:

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- J. Concrete liquid waste treatment units.
- (7) Be installed level on undisturbed or compacted soil, 1/4-3/4 inch pea gravel or sand.

20.7.3.605 DESIGN; MINIMUM REQUIRED TREATMENT LEVELS FOR SITE CONDITIONS:

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[F]G. A mound system or an elevated system in accordance with 20.7.3.~~[807]~~806 NMAC may be used to meet clearance requirements or to overcome soil type limitations in lieu of advanced treatment. A sand-lined trench or bottomless sand filter in accordance with 20.7.3.813 NMAC may be used to meet clearance requirements in lieu of advanced treatment.

20.7.3.701 DESIGN; CONVENTIONAL DISPOSAL FIELD; DESIGN AND CONSTRUCTION:

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[F]H. Where two (2) or more drain lines are installed, an approved distribution box of sufficient size to receive lateral lines shall be installed at the head of each disposal field. The inverts of all outlets shall be level and the invert of the inlet shall be at least one (1) inch above the outlets. Distribution boxes shall be designed to ~~[insure]~~ensure equal flow and shall be installed on a level base in natural undisturbed or compacted soil or on a concrete footing. Access to the distribution box shall be provided at the ground surface. However, the installer, after approval by the department, may install in lieu of a distribution box a tee fitting and a distribution header to multiple trenches provided that the tee and header pipe are level.

- (1) Concrete distribution boxes shall be coated on the inside with bituminous coating or other approved method acceptable to the department.
- (2) All laterals from a distribution box to the disposal field shall be approved pipe with watertight joints. Multiple disposal field laterals, wherever practicable, shall be of uniform length.
- (3) Connections between a septic tank and distribution box or drainfield shall be laid with approved pipe with watertight joints on natural ground or compacted fill or appropriate bedding material. Such approved pipe shall be SDR 35 or better.

~~[20.7.3.801 DESIGN; ALTERNATIVE DISPOSAL: Alternative disposal systems include, but are not limited to, privies, cluster systems, composting/incinerating toilets, evapotranspiration systems, mounds, subsurface irrigation, holding tanks, graywater systems and others as approved by the department.]~~

~~[20.7.3.801 NMAC - N, 9/1/05; A, 4/1/07]~~

All 800 Sections renumbered

20.7.3.~~[808]~~807 LOW PRESSURE [~~DOSED~~] DISPOSAL SYSTEMS:

_____ B.

_____ (2)

_____ (d) If a proprietary drainfield product other than aggregate is used, [such as the Orenco half pipe system or narrow chambers.] the distribution pipe shall be placed so as to prevent soil intrusion into the pipe.

20.7.3.~~[809]~~808 HOLDING TANK REQUIREMENTS:

...

L. The owner of a holding tank shall have the tank pumped to prevent discharge from the tank and the liquid waste (septage) properly disposed of in compliance with all applicable laws and regulations. Owners of holding

tanks shall maintain records demonstrating pumping and proper disposal of septage from the units to prevent discharge. Copies of pumping and disposal manifests shall be retained by the owner for at least seven years and shall be made available to the department for inspection on request. The records shall be:

- (1) kept on a form provided by the department if requested;
- (2) accompanied by such other documentation as the department may reasonably require;
- (3) signed by the lot owner or an authorized representative; ~~and~~
- (4) submitted on a semi-annual basis, or a schedule otherwise determined by the department, to the department field office having jurisdiction, ~~and~~
- (5) be included in any transfer inspection report or unpermitted system inspection report.

20.7.3.811 GRAYWATER SYSTEMS:

M. The disposal system shall be constructed in accordance with 20.7.3.805 NMAC.

20.7.3.811 SPLIT FOW SYSTEMS:

C. The toilet waste holding tank shall have a minimum capacity of 1000 gallons and shall meet all requirements of holding tanks described in Section 20.7.3.809 NMAC, except for Subsections A, B, C, D, E and H.

D. Effluent from the waste holding tank may be discharged to an ET bed constructed in accordance with 20.7.3.806 NMAC and sized at 25% of design flow. An effluent filter is required on the waste holding tank.

20.7.3.812 SAND-LINED TRENCHES AND BOTTOMLESS SAND FILTERS:

C. The distribution system shall conform to the requirements of 20.7.3.808 NMAC, Low Pressure Disposal Systems.

20.7.3.902 OPERATION AND MAINTENANCE REQUIREMENTS AND EVALUATION AND INSPECTION REQUIREMENTS AT TIME OF TRANSFER:

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C. Household hazardous waste [and high strength waste] shall not be introduced into the system. Wastewater that exceeds domestic liquid waste may be treated by an appropriately designed advanced treatment system.

F. For permitted conventional liquid waste systems, a non-invasive evaluation shall be conducted that determines:

- (1) the treatment unit is watertight, is functioning properly and the existing tank has a liquid capacity within one tank size of the capacity required by Subsection Q of 20.7.3.201 NMAC;
- (2) the disposal system appears to be functioning properly;
- (3) the liquid waste system appears to meet setbacks and clearances;
- (4) lot size requirements of the regulations in effect at the time of the initial installation, or in effect at the time of the most recent permitted modification, are met; and
- (5) the system does not constitute a public health or safety hazard.

20.7.3.904 REQUIREMENTS FOR QUALIFICATION:

D. Septage pumpers.

(1) Septage pumpers shall demonstrate familiarity with applicable regulations and demonstrate competence in locating and exposing septic tanks, measuring septic sludge and scum levels, the complete pumping of septic tank sludge, maintenance of pumping equipment in a sanitary condition, prevention of pathogen transmission and preparation of an appropriate safety plan for normal operations.

(2) Septage pumpers shall maintain his or her equipment to ensure no sewage spills occur during transport or storage and that his or her employees or the public are not subjected to a hazard to public health and
health hazards.

(3) Septage pumpers shall have a written contingency plan for spill abatement, and shall have the equipment and supplies needed to abate spills onsite during each pumping operation.

(4) Septage pumpers shall notify the department of the facilities they use for the septage disposal, and shall provide the department with copies of any permits or licenses issued by the owner of the disposal facility.