OSWW INSTALLER WORKSHOP

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SOURCE MATERIAL: LOUISIANA ADMINISTRATIVE CODE, TITLE 51, PART XIII

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DEFINITIONS

- COMMERCIAL TREATMENT FACILITY (DESIGNED IN ACCORDANCE WITH §503): ANY TREATMENT FACILITY WHICH IS REQUIRED BY THE STATE HEALTH OFFICER WHENEVER THE USE OF AN INDIVIDUAL SEWERAGE SYSTEM IS UNFEASIBLE OR NOT AUTHORIZED.
- COMMUNITY SEWERAGE SYSTEM: ANY SEWERAGE SYSTEM WHICH SERVES MULTIPLE CONNECTIONS AND CONSISTS OF A COLLECTION AND/OR PUMPING/TRANSPORT SYSTEM AND TREATMENT FACILITY.
- CONVENTIONAL SEPTIC TANK SYSTEM: A SEPTIC TANK SYSTEM WHICH CONSISTS OF A SEPTIC TANK(S) FOLLOWED BY A SUBSURFACE ABSORPTION FIELD.
- FACILITY OR FACILITIES: ANY OR ALL OF THE APPARATUS AND APPURTENANCES ASSOCIATED WITH A SANITARY SEWAGE TREATMENT SYSTEM, ELEMENT, OR PROCESS.

DEFINITIONS

- GRAVELLESS PIPE: A PROPRIETARY DEVICE WHICH MAY BE USED IN LIEU OF CONVENTIONAL SUBSURFACE ABSORPTION FIELD MATERIALS WHEN APPROVED BY THE STATE HEALTH OFFICER.
- INDIVIDUAL MECHANICAL PLANT: A TREATMENT FACILITY WHICH PROVIDES PRIMARY AND SECONDARY TREATMENT OF SANITARY SEWAGE BY USE OF AEROBIC BACTERIAL ACTION WHICH IS SUSTAINED BY MECHANICAL MEANS.
- INDIVIDUAL SEWERAGE SYSTEM: ANY SYSTEM OF PIPING (EXCLUDING THE BUILDING DRAIN), AND/OR COLLECTION AND/OR TRANSPORT SYSTEM WHICH SERVES ONE OR MORE CONNECTIONS, AND/OR PUMPING FACILITY, AND TREATMENT FACILITY, ALL LOCATED ON THE PROPERTY WHERE THE SANITARY SEWAGE ORIGINATES; AND WHICH UTILIZES THE INDIVIDUAL SEWERAGE SYSTEM TECHNOLOGY WHICH IS SET FORTH IN CHAPTER 7 SUBCHAPTER B OF THIS PART, OR A COMMERCIAL TREATMENT FACILITY WHICH IS SPECIFICALLY AUTHORIZED FOR USE BY THE STATE HEALTH OFFICER.

DEFINITIONS

- LIMITED USE SEWERAGE SYSTEM: OFFICER FOR INSTALLATION OR USE FOR A STRUCTURE OR DWELLING WHICH IS OCCUPIED ***LESS THAN FOUR DAYS*** IN A WEEK (I.E. 3 DAYS OR LESS), AND THE USE OF WHICH GENERATES ***LESS THAN 100 GPD*** OF SANITARY SEWAGE.
- MANUFACTURER: A PERSON WHO ENGAGES IN THE BUSINESS OR PRACTICE OF CONSTRUCTING INDIVIDUAL MECHANICAL SEWERAGE TREATMENT SYSTEMS, AND WHO IS RESPONSIBLE FOR HAVING THE SYSTEM EVALUATED IN COMPLIANCE WITH ¶ 725(D) OF THIS PART.
- PERSON: ANY NATURAL PERSON, PARTNERSHIP, CORPORATION, ASSOCIATION, GOVERNMENTAL SUBDIVISION, RECEIVER, TUTOR, CURATOR, EXECUTOR, ADMINISTRATOR, FIDUCIARY, OR REPRESENTATIVE OF ANOTHER PERSON, OR PUBLIC OR PRIVATE ORGANIZATION OF ANY CHARACTER.

DEFINITIONS

- PREMISES: ANY STRUCTURE OR DWELLING OF ANY CONSTRUCTION WHATSOEVER IN WHICH A PERSON MAY LIVE, WORK, OR CONGREGATE.
- SANITARY SEWAGE: ANY AND ALL ***HUMAN WASTE AND/OR DOMESTIC WASTE***, THE DISPOSAL OF WHICH REQUIRES A SEWERAGE SYSTEM APPROVED OR AUTHORIZED BY THE STATE HEALTH OFFICER. SANITARY SEWAGE MAY INCLUDE ITS CONVEYING LIQUID AND/OR ANY OTHER LIQUID OR SOLID MATERIAL WHICH MAY BE PRESENT THEREIN.

DEFINITIONS

- SECONDARY TREATMENT STANDARD: A SEWAGE EFFLUENT WATER QUALITY STANDARD WHICH PRESCRIBES A MAXIMUM **30-DAY AVERAGE** CONCENTRATION OF *BIOCHEMICAL OXYGEN DEMAND* **OF 30 MILLIGRAMS** PER LITER (MG/L), AND A **MAXIMUM** DAILY CONCENTRATION OF BIOCHEMICAL OXYGEN DEMAND OF **45 MG/L**. THE 30-DAY AVERAGE CONCENTRATION IS AN ARITHMETIC MEAN OF THE VALUES FOR ALL EFFLUENT SAMPLES COLLECTED IN THE SAMPLING PERIOD. THE ANALYSES TO BE PERFORMED FOR THE PURPOSE OF DETERMINING COMPLIANCE WITH THESE EFFLUENT LIMITATIONS AND STANDARDS SHALL BE IN ACCORDANCE WITH THE EIGHTEENTH EDITION OF THE *"STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER*", AVAILABLE FROM THE AMERICAN PUBLIC HEALTH ASSOCIATION 1015 EIGHTEENTH STREET NW, WASHINGTON, D.C. 20036, EXCEPT WHERE OTHERWISE SPECIFIED.

DEFINITIONS

- SEPTIC TANK SYSTEM: AN INDIVIDUAL SEWERAGE SYSTEM WHICH CONSISTS OF A SEPTIC TANK(S) FOLLOWED BY A PROCESS WHICH TREATS AND DISPOSES OF THE SEPTIC TANK EFFLUENT.
- SEWERAGE SYSTEM: ANY SYSTEM OF PIPING (EXCLUDING THE BUILDING DRAIN AND BUILDING SEWER) AND/OR COLLECTION AND/OR TRANSPORT SYSTEM AND/OR PUMPING FACILITY AND/OR TREATMENT FACILITY, ALL FOR THE PURPOSE OF COLLECTING, TRANSPORTING, PUMPING, TREATING AND/OR DISPOSING OF SANITARY SEWAGE.

DEFINITIONS

- **SUBDIVISION** *FOR THE PURPOSE OF THESE REGULATIONS*:

  1. THE DIVISION, OR THE PROCESS OR RESULTS THEREOF, OF ANY LAND INTO TWO OR MORE LOTS, TRACTS, PARCELS, OR PLOTS, ANY ONE OF WHICH HAS AN AREA OF LESS THAN 3 ACRES, OR
  2. THE RE-SUBDIVISION OF LAND HERETOFORE DIVIDED INTO LOTS, TRACTS, SITES OR PARCELS; PROVIDED, HOWEVER, THAT MINIMUM LOT SIZE RESTRICTIONS PRESENTED IN §511(B) SHALL NOT APPLY TO:
     - **a. A SUBDIVISION LEGALLY ESTABLISHED AND RECORDED PRIOR TO JULY 28, 1967; OR**
     - **b. A SMALL PARCEL OF LAND SOLD TO OR EXCHANGED BETWEEN ADJOINING PROPERTY OWNERS, PROVIDED THAT SUCH A SALE OR EXCHANGE DOES NOT CREATE ADDITIONAL LOTS.**

- **NOTE: FOR THE PURPOSE OF THESE REGULATIONS, THE REQUIREMENTS FOR WETLANDS MIGHT BE MORE STRINGENT.**

DEFINITIONS

- SUB-MANUFACTURER: A PERSON OR ENTITY AUTHORIZED BY A LICENSED MANUFACTURER TO CONSTRUCT, OR ASSEMBLE INDIVIDUAL SEWERAGE SYSTEMS, OR ANY PORTION THEREOF.
- TRAILER COACH: ANY OF THE VARIOUS FORMS OF **STRUCTURES** WHICH ARE EQUIPPED, OR CAPABLE OF BEING EQUIPPED, **WITH WHEELS**, INCLUDING, BUT NOT LIMITED TO, TRAVEL TRAILERS, TRUCK COACHES OR CAMPERS, MOBILE HOMES, TRAILERS, AND/OR TENT CAMPERS, WHETHER CAPABLE OF MOVING UNDER ITS OWN POWER OR NOT, AND **WHERE A PERSON OR PERSONS MAY LIVE, WORK, OR CONGREGATE.**
- TRAILER PARK: ANY LOT, TRACT, PARCEL OR PLOT OF LAND UPON WHICH MORE THAN ONE TRAILER COACH IS OR MAY BE LOCATED, AND WHERE TRAILER COACH SPACES ARE RENTED OR LEASED.

DEFINITIONS

- **PLUMBING FACILITIES:**

  - ALL PREMISES SHALL BE PROVIDED WITH PLUMBING FIXTURES.
  - SHALL BE CONNECTED TO COMMUNITY SYSTEM WHENEVER FEASIBLE.
  - CAN CONNECT TO INDIVIDUAL SEWERAGE SYSTEM IF COMMUNITY CONNECTION IS NOT FEASIBLE AND WILL NOT CREATE NUISANCE OR PUBLIC HEALTH HAZARD.

DEFINITIONS

- **RESPONSIBLE PARTIES:**
- A PERSON WHO OWNS, OPERATES, MANAGES, OR OTHERWISE CONTROLS ANY PREMISES, SHALL PROVIDE FOR SEWAGE DISPOSAL IN A MANNER WHICH IS IN COMPLIANCE WITH THIS CODE.
- **DISCHARGES:**
- A PERSON SHALL NOT DIRECTLY OR INDIRECTLY DISCHARGE, OR ALLOW TO BE DISCHARGED, THE CONTENTS OR EFFLUENT FROM ANY PLUMBING FIXTURES, VAULT, PRIVY, PORTABLE TOILET, OR SEPTIC TANK, INTO ANY ROAD, STREET, GUTTER, DITCH, WATER COURSE, BODY OF WATER, OR ONTO THE SURFACE OF THE GROUND.

DEFINITIONS

- **INSTALLATION:**
- NO COMPONENT PART OF A SEWERAGE SYSTEM SHALL BE INSTALLED WHEREVER CONTAMINATION OF A GROUND WATER SUPPLY MAY OCCUR. ***THE LOCATION OF ANY SEWERAGE FACILITY SHALL NOT CONFLICT WITH THE PLACEMENT REQUIREMENTS FOR A WATER WELL*** WHICH ARE SET FORTH IN PART XII OF THIS CODE. ***(50 FT)***

PERMITS

- **PREVIOUS PERMITS:**
- ANY PERMITS ISSUED, OR APPROVAL OF PLANS AND SPECIFICATIONS GRANTED PRIOR TO THE EFFECTIVE DATE OF THE 1998 REVISIONS OF THIS PART SHALL REMAIN IN EFFECT
- **PERMITS – COMMUNITY SYSTEMS:**
- A PERSON SHALL NOT CONSTRUCT OR OPERATE A COMMUNITY SEWERAGE SYSTEM, OR MAKE A MODIFICATION OF AN EXISTING SYSTEM WHICH CHANGES THE SYSTEM'S CAPACITY, EFFLUENT QUALITY, POINT OF DISCHARGE, HYDRAULIC OR CONTAMINANT LOADINGS, OR OPERATION OF THE COMPONENT UNITS OF THE SYSTEM WITHOUT HAVING FIRST OBTAINED A PERMIT FROM THE STATE HEALTH OFFICER.

PERMITS

- **COMMUNITY SEWAGE SYSTEM:**
- SEWERAGE SYSTEM REQUIRED. COMMUNITY SEWERAGE SYSTEMS SHALL BE PROVIDED FOR ALL NEW SUBDIVISIONS AND DEVELOPMENTS WHERE LOTS ARE SOLD OR LEASED. THE DEVELOPER/OWNER SHALL BE RESPONSIBLE FOR THE PROVISION OF ADEQUATE SEWAGE TREATMENT.
- THE USE OF INDIVIDUAL SEWERAGE SYSTEMS IN LIEU OF A COMMUNITY SEWERAGE SYSTEM MAY BE AUTHORIZED AND WILL BE CONSIDERED UNDER THE FOLLOWING CIRCUMSTANCES.
    1. IN SUBDIVISIONS COMPRISED OF LESS THAN 125 LOTS
    2. WHEN THE TOTAL ANTICIPATED DESIGN FLOW TO THE SEWERAGE SYSTEM DOES NOT EXCEED 1,500 GPD, AND WHERE **NO FOOD SERVICE** IS INVOLVED AS PER §1301(A)(2).
    3. ON LARGE LOTS, WHERE AN AREA OF 1 ACRE OR MORE IS INVOLVED, HAVING A MINIMUM FRONTAGE OF 125 FEET.
    4. THE INSTALLATION WOULD BE LOCATED ON A LOT, PLOT OR SITE WHICH HAS A MINIMUM AREA OF 22,500 SQUARE FEET, AND A MINIMUM FRONTAGE OF 125 FEET.

PERMITS

- **<u>COMMUNITY SEWAGE SYSTEM: (CONTINUED)</u>**

  5. FOR SUBDIVISIONS WHEN EACH AND ALL LOTS HAVE A MINIMUM AREA OF AT LEAST 22,500 SQUARE FEET AND A MINIMUM FRONTAGE OF 125 FEET, EXCEPT THAT THE 125 FOOT FRONTAGE REQUIREMENT MAY BE WAIVED FOR UP TO 15 PERCENT OF THE TOTAL NUMBER OF LOTS IN THE DEVELOPMENT IF:

     a. **MINIMUM FRONTAGE ON EACH LOT IN QUESTION IS NOT LESS THAN 60 FEET, AND;**

     b. **THE WIDTH OF EACH LOT IN QUESTION IS AT LEAST 125 FEET.**

  6. FOR PARISHES IN WHICH THE PARISH GOVERNING AUTHORITY HAS ENACTED AND ENFORCES A **FORMAL SEWAGE PERMITTING SYSTEM.**

PERMITS

- **<u>COMMUNITY SEWAGE SYSTEM: (CONTINUED)</u>**
  7. WHERE LOTS OF "RECORD" (I.E., LOTS CREATED BY FORMAL SUBDIVISION PRIOR TO JULY 28, 1967). NO CASE SHALL THE NEWLY CREATED LOTS HAVE LESS THAN 50 FEET OF FRONTAGE OR BE LESS THAN 5000 SQUARE FEET IN AREA.
  8. FOR SINGLE LOTS OR SITES, REGARDLESS OF SIZE, REMAINING IN SUBSTANTIALLY DEVELOPED PREVIOUSLY ESTABLISHED SUBDIVISIONS, WHEN, IN THE OPINION OF THE STATE HEALTH OFFICER, A HAZARD TO THE PUBLIC HEALTH WILL NOT RESULT.
  9. FOR SINGLE LOTS OR SITES, REGARDLESS OF SIZE, WHEN THE INSTALLATION OF AN INDIVIDUAL SEWERAGE SYSTEM IS PROPOSED IN ORDER TO RENOVATE OR REPLACE A PRE-EXISTING SEWERAGE SYSTEM. SUCH INSTALLATION MAY BE ALLOWED.

PERMITS

- **COMMUNITY SEWAGE SYSTEM:**
- EFFECTIVE OCTOBER 20, 2000, THIS RULE APPLIES TO NEW INDIVIDUAL SEWERAGE SYSTEM INSTALLATIONS, UPGRADES AND/OR MODIFICATIONS TO EXISTING SYSTEMS REQUIRED AS A RESULT OF AN INVESTIGATION.
- THE STATE HEALTH OFFICER MAY CONSIDER FOR APPROVAL, ON AN INDIVIDUAL BASIS, PROPOSALS FOR DEVELOPMENTS THAT ARE OF A UNIQUE NATURE, SUCH AS A DEVELOPMENT OVER WATER, OR IRREGULAR CONFIGURATION, WHERE INDIVIDUAL SEWAGE DISPOSAL IS PROPOSED, WHERE THE DEVELOPMENT, BY ITS VERY NATURE (E.G., WHERE COMMONLY OR JOINTLY OWNED PROPERTY IS INVOLVED), IS CLEARLY NOT ADDRESSED BY THE CURRENT CONSIDERATIONS OF THIS CODE.

PERMITS

- **<u>INDIVIDUAL SEWERAGE SYSTEM:</u>**
- A **PERSON** SHALL NOT INSTALL, CAUSE TO BE INSTALLED, ALTER SUBSEQUENT TO INSTALLATION, OR OPERATE AN INDIVIDUAL SEWERAGE SYSTEM OF ANY KIND WITHOUT FIRST HAVING OBTAINED A PERMIT FROM THE STATE HEALTH OFFICER.
- UPON RECEIPT OF A REQUEST FOR SUCH PERMIT, AND APPROVAL OF PLANS AND SPECIFICATIONS FOR THE PROPOSED INDIVIDUAL SEWERAGE SYSTEM (WHICH SHALL ACCOMPANY ANY SUCH REQUEST FOR PERMIT), A TEMPORARY PERMIT, AUTHORIZING THE INSTALLATION OF SAID SYSTEM, MAY BE ISSUED WHEN:
  - COMMUNITY-TYPE SEWERAGE SYSTEM IS NOT FEASIBLE
  - INDIVIDUAL SEWERAGE FACILITIES ARE NOT LIKELY TO CREATE A NUISANCE OR PUBLIC HEALTH HAZARD.

PERMIT

- **INDIVIDUAL SEWERAGE SYSTEM:**
- A FINAL PERMIT APPROVING THE INSTALLATION, SHALL BE ISSUED ONLY UPON VERIFICATION THAT THE INDIVIDUAL SEWERAGE SYSTEM HAS BEEN INSTALLED IN COMPLIANCE WITH THIS CODE.
- ONSITE INSPECTION CONDUCTED BY A REPRESENTATIVE OF THE STATE HEALTH OFFICER AND/OR IN THE FORM OF A COMPLETED "CERTIFICATION BY INSTALLER" FORM SUBMITTED TO THE STATE HEALTH OFFICER BY THE LICENSED INSTALLER.
- ***NOTE***: VIA CERTIFICATION, ***INSTALLERS*** BECOME AGENTS AND ***HAVE A DUTY*** TO THE PUBLIC.

PERMITS

- **<u>INDIVIDUAL SEWERAGE SYSTEM:</u>**
- THE CERTIFICATION BY INSTALLER SHALL BE SUBMITTED TO THE STATE HEALTH OFFICER WITHIN 15 DAYS AFTER COMPLETION OF THE INSTALLATION.
- MECHANICAL SEWAGE TREATMENT PLANTS, USING ELECTRICAL POWER MAY REQUIRE A PROPERLY INSTALLED **GROUND FAULT CURRENT INTERRUPTER (GFCI).**
- THE OFFICE OF PUBLIC HEALTH DOES NOT HAVE THE AUTHORITY TO INSPECT OR APPROVE ELECTRICAL CONNECTIONS, ARE NOT QUALIFIED IN THE AREA OF SUCH ELECTRICAL CONNECTIONS AND WILL NOT ASSUME RESPONSIBILITY FOR SUCH ELECTRICAL SAFETY CONSIDERATIONS.
- PLANS AND SPECIFICATIONS FOR THE INSTALLATION WHICH HAVE BEEN PROPER ELECTRICAL CONNECTIONS MUST BE MADE TO THE AIR PUMP.

PERMITS

- **<u>INDIVIDUAL SEWERAGE SYSTEM:</u>**
- PERMITS FOR THE INSTALLATION OF INDIVIDUAL SEWERAGE SYSTEMS SHALL NOT BE ISSUED FOR LOTS WITHIN A FORMAL SUBDIVISION UNLESS AN OFFICIAL RECORDED **PLAT/PROPERTY SURVEY** HAS BEEN FILED WITH AND SUBSEQUENTLY APPROVED FOR USE OF INDIVIDUAL SEWERAGE SYSTEMS BY THE OFFICE OF PUBLIC HEALTH.
- THE REVIEW AND APPROVAL OF PLANS AND SPECIFICATIONS FOR THE PROPOSED INDIVIDUAL SEWERAGE SYSTEM SHALL BE MADE IN ACCORDANCE WITH THE "REGULATIONS CONTROLLING THE DESIGN AND CONSTRUCTION OF INDIVIDUAL SEWAGE SYSTEMS"

PERMITS

- **<u>INDIVIDUAL SEWERAGE SYSTEM:</u>**
- A LICENSE FOR SUCH ACTIVITY SHALL BE ISSUED PRIOR TO MAKING ANY SUCH INSTALLATIONS OR PROVIDING MAINTENANCE.
- INDIVIDUAL MECHANICAL PLANTS SHALL BE INSTALLED AND MAINTENANCE PROVIDED BY LICENSED INDIVIDUAL SEWERAGE SYSTEM INSTALLERS AND/OR MAINTENANCE PROVIDERS ONLY.
- **NO SEWERAGE SLUDGE SHALL BE APPLIED TO LAND FOR DISPOSAL WITHOUT A PERMIT.**

WHO IS RESPONSIBLE FOR PERMITS?

- A **PERSON INSTALLING** OR PROVIDING MAINTENANCE OF AN INDIVIDUAL SEWERAGE SYSTEM **AND** THE PERSON WHO IS THE **OWNER** OF THE PREMISES SHALL BE RESPONSIBLE FOR COMPLIANCE WITH --701 AND 703.
- ***INSTALLER AND OWNER!***

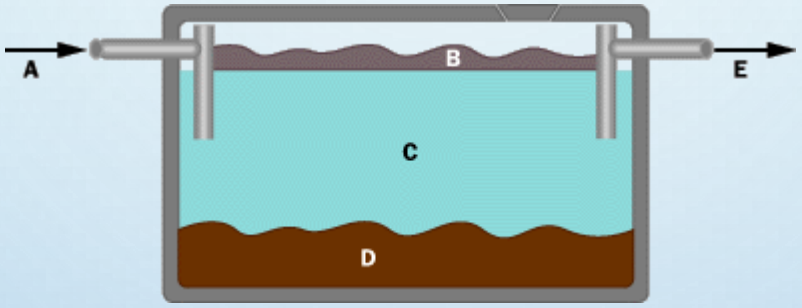
MAINTENANCE AND OPERATION

- INDIVIDUAL SEWERAGE SYSTEMS SHALL BE KEPT IN SERVICE AND IN A SERVICEABLE CONDITION SUFFICIENT TO INSURE COMPLIANCE WITH THIS CODE AND IN ORDER TO AVOID CREATING OR CONTRIBUTING TO A NUISANCE OR A PUBLIC HEALTH HAZARD.
- INSTALLERS OF AN INDIVIDUAL MECHANICAL PLANT IN THE INITIAL SERVICE POLICY SHALL CONTAIN PROVISIONS FOR FOUR INSPECTIONS OR SERVICE VISITS SCHEDULED **ONCE EVERY 6 MONTHS.**

SEPTIC TANK SYSTEMS

- A SEPTIC TANK IS A WATERTIGHT TANK MADE OF STEEL, CONCRETE OR OTHER APPROVED MATERIALS IN WHICH THE SETTLEABLE SOLIDS OF SEWAGE SETTLE OUT AND ARE LARGELY CHANGED INTO LIQUIDS OR GASES BY BACTERIAL DECOMPOSITION.
- THE REMAINING RESIDUE IN THE TANK IS A HEAVY, BLACK SEMI-LIQUID SLUDGE WHICH MUST BE REMOVED FROM THE TANK PERIODICALLY.

SEPTIC TANK SYSTEMS



A – Wastewater in

B – Scum Layer

C – Water

D – Sludge Layer

E – To Drain Field

SEPTIC TANK SYSTEMS

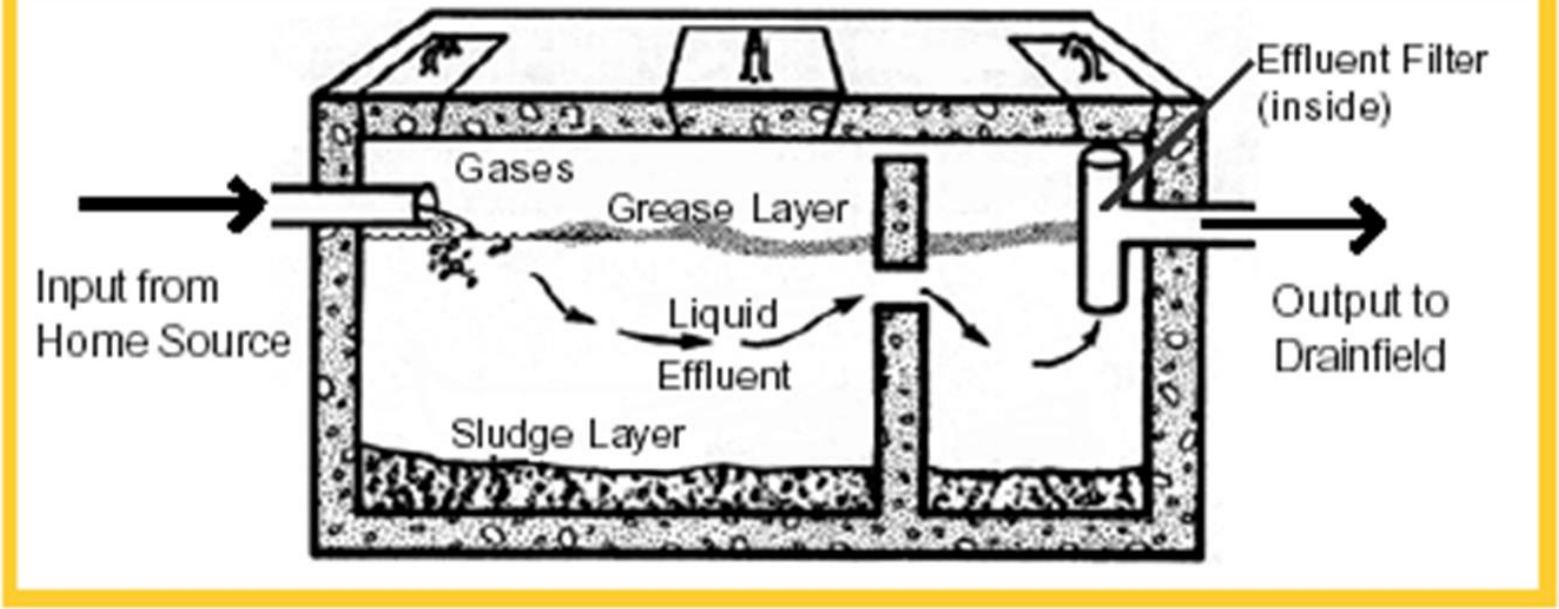


Figure 2. Generalized cross-section of a household septic tank

SEPTIC TANK SYSTEMS

- IT IS IMPOSSIBLE TO REMOVE THE DIGESTED SLUDGE WITHOUT REMOVING SOME UNDIGESTED MATERIAL.
- REMOVED SLUDGE SHOULD BE DISPOSED OF IN A SAFE MANNER.
- THERE ARE COMMERCIAL SERVICE COMPANIES THAT WILL CONTRACT FOR SEPTIC TANK CLEANING AND SLUDGE DISPOSAL. ******REGULATED BY LDEQ*****
- MULTIPLE COMPARTMENT SEPTIC TANKS OR SINGLE CHAMBER SEPTIC TANKS IN SERIES PROVIDE MORE EFFECTIVE TREATMENT THAN SINGLE CHAMBER TANKS OF THE SAME TOTAL CAPACITY.
- THE USE OF MULTIPLE COMPARTMENT TANKS OR SINGLE TANKS IN SERIES IS ENCOURAGED.
- HOWEVER, SINGLE CHAMBER SEPTIC TANKS ARE ACCEPTABLE.

SEPTIC TANK SYSTEMS

- THE VELOCITY OF FLOW THROUGH THE TANKS MUST BE SUCH THAT MAXIMUM SOLIDS AND SCUM RETENTION IS ACHIEVED. VERTICAL CYLINDRICAL TANKS MUST HAVE HORIZONTAL (INLET-TO-OUTLET) SEPARATION OF AT LEAST 24 INCHES.
  - THE OUTLET MUST BE DESIGNED SO AS TO PRECLUDE FLOATING SOLIDS FROM ESCAPING FROM THE TANK.
- THE MINIMUM TOTAL SEPTIC TANK LIQUID CAPACITY REQUIRED IS 2.5 TIMES THE ESTIMATED AVERAGE DAILY DESIGN FLOW.
- AVERAGE DAILY DESIGN FLOW (CHAPTER 15 OF THIS PART)
- ONE BEDROOM RESIDENCES MAY, HOWEVER, UTILIZE A 500 GALLON TANK.
- **NOTE: THE MINIMUM ALLOWABLE TOTAL SEPTIC TANK VOLUME FOR ALL APPLICATIONS IS 500 GALLONS.**

SEPTIC TANK SYSTEMS

- THE DISTANCE BETWEEN THE INLET AND OUTLET OPENINGS IN THE TANK WALL, MEASURED HORIZONTALLY, **SHALL BE NOT LESS THAN 24 INCHES**. THE DISTANCE BETWEEN THE INLET AND OUTLET SHALL EXCEED THE WIDTH OF RECTANGULAR AND OVAL-SHAPED TANKS.
- LIQUID DEPTH
  - MINIMUM OF 30 INCHES
  - MAXIMUM OF 72 INCHES
- MEASURED VERTICALLY FROM THE INVERT OF THE OUTLET (OVERFLOW LEVEL) TO THE BOTTOM OF THE TANK.
- RECENT SEPTIC TANK STUDIES HAVE INDICATED THE SHALLOWER TANK TO BE MORE EFFICIENT AND IS THEREFORE PREFERRED.
- LIQUID LEVEL SHALL NOT BE LESS THAN 15 PERCENT OF THE LIQUID DEPTH CAPACITY.
- THE VOLUME OF THE AIR SPACE ABOVE THE LIQUID SHALL NOT BE LESS THAN 15 PERCENT OF THE LIQUID CAPACITY. IN THE LATTER CASE, THIS CONDITION IS MET IF THE LIQUID DEPTH IS AT LEAST 79 PERCENT OF THE DIAMETER OF THE TANK.

SEPTIC TANK SYSTEMS

- INTERNAL PARTITIONS
  - MINIMUM VOLUME PER COMPOUND IS 250 GALLONS
  - MINIMUM OF 3 COMPARTMENTS
  - NO TANKS SHALL HAVE MORE THAN THREE COMPARTMENTS
- TANKS SHOULD BE CORROSION RESISTANT AND PROVIDE A WATERTIGHT PERMANENT STRUCTURE
- COVERS
  - DEAD LOAD OF NOT LESS THAN 150 POUNDS PER SQUARE FOOT
- CONCRETE COVERS
  - MINIMUM OF 4 INCHES THICK

SEPTIC TANK SYSTEMS

- ACCESS:
  - REMOVABLE COVER OR MANHOLE
  - INLET AND OUTLET DEVICES AS WELL AS EACH COMPARTMENT IN MULTIPLE COMPARTMENT TANKS MUST BE ACCESSIBLE.
  - MANHOLES: 20 INCHES SQUARE OR 24 INCHES IN DIAMETER
  - 8-INCH INSPECTION HOLE OVER THE INLET AND THE OUTLET
- EITHER **TEES OR BAFFLES** SHALL BE PROVIDED AT THE INLET OF THE TANK AND SHALL EXTEND UPWARD AT LEAST 6 INCHES ABOVE THE LIQUID LEVEL OF THE TANK
  - (THE INLET TEE OR BAFFLE SHALL EXTEND DOWNWARD TO AT LEAST SIX INCHES BELOW THE LIQUID LEVEL, BUT IT SHALL NOT EXTEND BELOW THE LEVEL OF THE LOWER END OF THE OUTLET TEE OR BAFFLE.)
- AT LEAST **2 INCHES** OF OPEN SPACE SHALL BE PROVIDED ABOVE THE BAFFLE OR TEE TO PROVIDE VENTILATION TO THE TANK THROUGH THE BUILDING PLUMBING SYSTEM

SEPTIC TANK SYSTEMS

- ON THE OUTLET SIDE THE TEE OR BAFFLE SHALL EXTEND DOWNWARD TO A DISTANCE **BELOW THE WATER SURFACE** EQUAL TO **40 PERCENT** OF THE LIQUID DEPTH OF TANKS WITH **VERTICAL SIDES AND 35 PERCENT OF LIQUID DEPTH OF TANKS OF OTHER SHAPES** AS MEASURED TO THE NEAREST INCH.
- IF A TEE OR BAFFLE IS USED IN THE OUTLET THE UPPER END SHALL EXTEND **6 INCHES ABOVE** THE LIQUID LEVEL.
- INLET AND OUTLET FITTINGS (TEES OR ELLS) MUST BE OF CAST IRON, SCHEDULE 40PVC OR ABS PLASTIC OR OTHER APPROVED MATERIAL.
- THE INVERT OF THE INLET SHALL BE LOCATED AT LEAST 2 INCHES ABOVE THE INVERT OF THE OUTLET.
- METAL SEPTIC TANKS:
  - MINIMUM OF 14 GAUGE COMMERCIAL GRADE STEEL
  - HOT-DIPPED ASPHALT COATING OF AT LEAST 0.025-INCH THICKNESS PROPERLY APPLIED TO ALL SURFACES OF THE NEW, CLEAN, BARE METAL.

SEPTIC TANK SYSTEMS

- THE USE OF SEPTIC TANKS IN SERIES IS ENCOURAGED. THE FIRST TANK SHALL HAVE AT LEAST A 500-GALLON LIQUID CAPACITY AND ALL SUBSEQUENT TANKS SHALL HAVE AT LEAST 300-GALLON LIQUID CAPACITIES.
- TOTAL CAPACITY OF ALL TANKS IN SERIES (FOR TANKS AS PRESCRIBED IN §715.D)
- MINIMIZE VELOCITIES
  - DOES NOT DISTURB THE RETENTION OF SCUM AND SLUDGE IN THE TANK.
  - TO ATTAIN THIS, THE INLET PIPING FROM THE HOUSE MUST HAVE A MINIMUM DIAMETER OF 4 INCHES AND BE LAID ON A SLOPE OF AT LEAST ONE-EIGHTH INCH PER FOOT.
  - THE SLOPE FOR THE LAST 10 FEET OF LINE PRECEDING THE SEPTIC TANK MUST NOT EXCEED ONE-FOURTH INCH PER FOOT.
  - SDR 35 SEWER AND DRAINAGE PIPE OR EQUIVALENT.
- BACKFILL AROUND SEPTIC TANKS MUST BE MADE IN THIN LAYERS THOROUGHLY TAMPED IN A MANNER THAT WILL NOT PRODUCE UNDUE STRAIN ON THE TANK. SUFFICIENT SOIL COVER CAN BE PROVIDED OVER THE TOP OF THE SEPTIC TANK TO PERMIT GRASS GROWTH. HOWEVER, NO OTHER OBSTRUCTION TO ACCESS (I.E., CONCRETE SLABS, BUILDINGS, ETC.) SHALL BE ALLOWED.

SEPTIC TANK SYSTEMS

- SEPTIC TANKS SHOULD BE INSPECTED EVERY SIX (6) YEARS AND PUMPED AT LEAST EVERY EIGHT (8) YEARS BY A LICENSED SEWAGE HAULER.
- UNTREATED OR UNCOATED METAL SEPTIC TANKS SHALL NOT BE USED.
- ABANDONED SEPTIC TANKS (TANKS NO LONGER IN ACTIVE USE) SHALL BE PUMPED OUT BY A LICENSED SEWAGE HAULER, THEN REMOVED OR THE COVER DISCARDED AND THE TANK FILLED WITH SOIL TO NATURAL GRADE.
- THE CONTENTS OF THE ABANDONED TANK SHALL NOT BE PLACED INTO A NEWLY INSTALLED INDIVIDUAL SEWERAGE SYSTEM.
- RED FLAGS: SIGNS OF SEPTIC SYSTEM FAILURE
  - THERE ARE MANY THINGS TO WATCH FOR BOTH OUTSIDE AND INSIDE THE HOME THAT CAN INDICATE SEPTIC SYSTEM PROBLEMS OR FAILURE. KEEP IN MIND, HOWEVER, THAT THERE CAN ALSO BE PROBLEMS BENEATH THE LAND SURFACE THAT MAY NOT BE VISIBLE. PROPER MAINTENANCE AND USE OF SEPTIC SYSTEMS ARE ESSENTIAL TO PREVENTING PROBLEMS.

SEPTIC TANK SYSTEMS

- THERE IS A COMMON BELIEF THAT SEWAGE AFTER TREATMENT IN A SEPTIC TANK IS PURE WATER, OR VERY NEARLY SO.

THIS IS FALSE

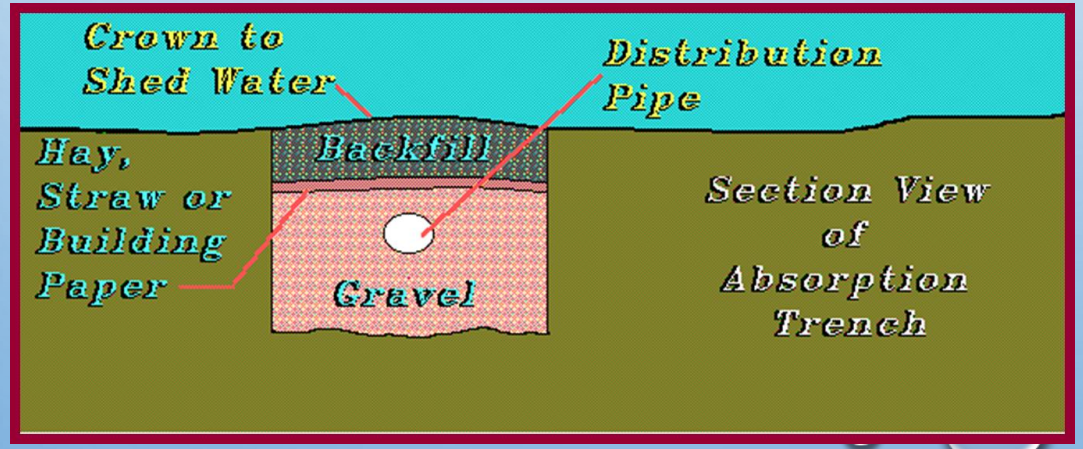
- THE EFFLUENT IS DANGEROUS AND FOUL.
- THE SEPTIC TANK CANNOT BE DEPENDED UPON TO REMOVE DISEASE GERMS. THE DISCHARGE OF THE EFFLUENT FROM SEPTIC TANKS INTO STREET GUTTERS, SURFACE DITCHES, OR STREAMS IS PROHIBITED.

SEPTIC TANK SYSTEMS

- **PRIMARY TREATMENT:** THE TREATMENT LEVEL OF A SEPTIC TANK IS REFERRED TO AS PRIMARY TREATMENT.
- SECONDARY TREATMENT:
  - THE PREFERRED METHOD OF TREATMENT FOR SEPTIC TANK EFFLUENTS IS ACCOMPLISHED THROUGH THE USE OF SOIL ABSORPTION TRENCHES.
  - SMALL OXIDATION PONDS OR SAND FILTER BEDS MAY BE USED IN LIEU OF ABSORPTION TRENCHES IN CERTAIN CONDITIONS.
  - THE LEVEL OF TREATMENT OF THESE UNITS IS REFERRED TO AS SECONDARY TREATMENT.
- **NOTE: AEROBIC TREATMENT UNITS (ATUs) CAN ACHIEVE SECONDARY TREATMENT**

ABSORPTION TRENCHES

- SEPTIC SYSTEM EFFLUENT IS TO BE DISPOSED OF IN ABSORPTION TRENCHES WHERE…
  1. SOIL CONDITIONS ARE SATISFACTORY
  2. SUFFICIENT LAND
  - THIS CONSISTS OF A SYSTEM OF COVERED GRAVEL (OR OTHER APPROVED AGGREGATE)-FILLED TRENCHES INTO THE SEPTIC TANK EFFLUENT IS APPLIED SO AS TO PERMIT THE LIQUID TO SEEP INTO THE SOIL
  - BY ACTION OF MICROORGANISMS IN THE SOIL, THE ORGANIC MATTER IS CONVERTED INTO MINERAL COMPOUND.



ABSORPTION TRENCHES

- A NUMBER OF VARIABLE DETERMINE WHETHER AN ABSORPTION TRENCH IS FEASIBLE:
  1. SOIL POROSITY (PERMEABILITY)
  2. GROUND WATER TABLE
  3. AVAILABLE SPACE
  4. THE RATE AT WHICH SEPTIC TANK EFFLUENT ENTERS THE SOIL (PERCOLATION RATE)
- IN GENERAL, THREE CONDITIONS SHOULD BE MET:
  1. THE SOIL PERCOLATION RATE MUST BE WITHIN ACCEPTABLE RANGE
  2. THE MAXIMUM ELEVATION OF THE GROUND WATER TABLE SHOULD BE AT LEAST 2 FEET BELOW THE BOTTOM OF THE PROPOSED TRENCH SYSTEM
  3. CLAY FORMATIONS OR OTHER IMPERVIOUS STRATA SHOULD BE AT A DEPTH GREATER THAN FOUR FEET BELOW THE BOTTOM OF THE TRENCHES.
- UNLESS THESE CONDITIONS ARE SATISFIED, THE SITE IS UNSUITABLE FOR A SUBSURFACE SEWAGE DISPOSAL SYSTEM, AND AN ALTERNATIVE METHOD MUST BE UTILIZED.

ABSORPTION TRENCHES

- "PERCOLATION TEST"
  - **THREE OR MORE TESTS** MUST BE MADE IN SEPARATE TEST HOLES SPACED UNIFORMLY OVER THE PROPOSED ABSORPTION FIELD SITE.
  - DIG OR BORE, WITH HORIZONTAL DIMENSIONS FROM 4 TO 12 INCHES AND VERTICAL SIDES TO THE DEPTH. HOLES MAY BE BORED WITH A 4-INCH AUGER.
- CAREFULLY **SCRATCH** THE BOTTOM AND SIDES OF THE HOLE WITH A KNIFE BLADE OR SHARP-POINTED INSTRUMENT IN ORDER TO REMOVE ANY **SMEARED SOIL SURFACES**. REMOVE ALL LOOSE MATERIAL FROM THE HOLE.
- TO CONDUCT THE TEST, FILL THE HOLE WITH CLEAR WATER. THIS PRE-WETTING PROCEDURE SHOULD NORMALLY BE ACCOMPLISHED ON THE DAY PRIOR TO THE PERCOLATION RATE MEASUREMENT. THE WET SEASON OF THE YEAR (MAXIMUM SATURATION)
  - ADD WATER UNTIL THE LIQUID DEPTH IS AT LEAST 6 INCHES, BUT NOT MORE THAN 12 INCHES OVER A 60-MINUTE PERIOD. IF THE DROP IN LIQUID DEPTH IN THE FIRST 30 MINUTES IS LESS THAN 1 INCH, IT IS UNNECESSARY TO CONTINUE THE TEST FOR THE FULL 60-MINUTE PERIOD.
  - THE DISTANCE THE WATER FALLS IN 60 MINUTES IN EACH OF THE THREE TEST HOLES IS RECORDED.

ABSORPTION TRENCHES

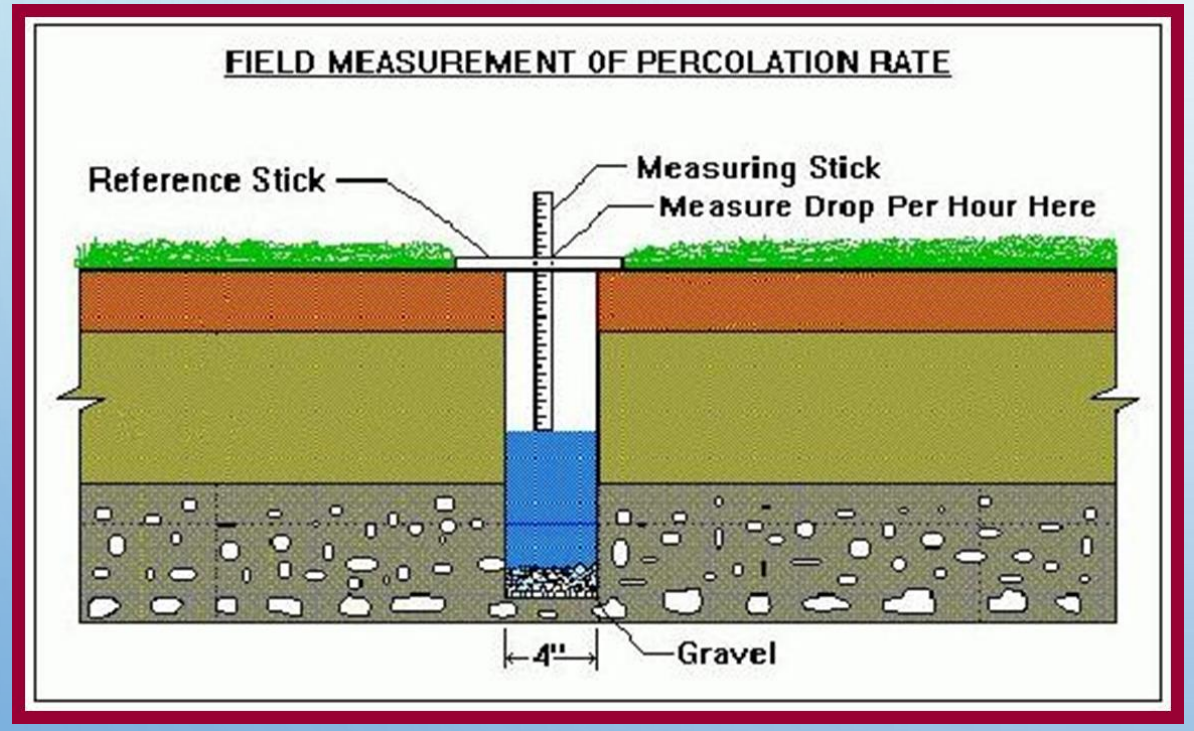


Table 1 Absorption Trench Length Requirements for Individual Residences	
Average Water Level Drop in 60 minutes (in inches)	**Length (in Feet) of Absorption Trenches Required per Bedroom***
More than 12	72
2	83
11	87
10	91
9	96
8	100
7	104
6	110
5	117
4	127
3	142
Less than 3	Not acceptable for absorption field

NOTE: A minimum of 160 linear feet of field line shall be provided.
* -or per 150 gpd of design flow for non-residential applications.

ABSORPTION TRENCHES

- MINIMUM FIELD LINE LENGTH: 160 FEET (MAXIMUM OF 100’ PER TRENCH)
- AT LEAST TWO TRENCHES.
- MANY DIFFERENT DESIGNS MAY BE USED IN LAYING OUT AN ABSORPTION TRENCH SYSTEM. THE CHOICE WILL DEPEND ON…
  - SIZE OF THE AVAILABLE DISPOSAL AREA
  - SHAPE OF THE AVAILABLE DISPOSAL AREA
  - THE CAPACITY REQUIRED
  - THE TOPOGRAPHY OF THE AREA.

ABSORPTION TRENCHES

- APPLIED TO SYSTEM OF LEVEL BOTTOMED TRENCHES.
- CONVENTIONAL FIELD LINES ARE LAID ON A SLOPE OF **2 TO 3 INCHES PER 100 FEET.**
- GRAVELLESS PIPE AND OTHER DISTRIBUTION CHAMBERS MUST BE LAID AS CLOSE AS POSSIBLE TO A SLOPE OF **1 INCH PER 100 FEET.**
- A **DISTRIBUTION BOX** MAY BE REQUIRED FOR EQUAL DISTRIBUTION OF THE EFFLUENT.
- TO PROVIDE THE MINIMUM REQUIRED BACKFILL DEPTH AND EARTH COVER, THE DEPTH OF THE ABSORPTION TRENCHES MUST BE A MINIMUM OF 18 INCHES.
- HOWEVER, THE TOTAL DEPTH MUST NOT EXCEED 24 INCHES.
- FIGURE 4 SHOWS DETAILS FOR ABSORPTION CONSTRUCTION
- TRENCHES **SHALL NOT BE GREATER THAN 100 FEET IN LENGTH** AND NOT LESS THAN 18 INCHES IN WIDTH.
- THE CENTER LINE DISTANCE BETWEEN INDIVIDUAL TRENCHES SHALL BE AT LEAST **6 FEET**.
- IN ADDITION, THE ABSORPTION TRENCHES SHALL BE LOCATED AT LEAST 10 FEET FROM ANY DWELLING OR PROPERTY LINE.

ABSORPTION TRENCHES

- THE LOCATION OF THE ABSORPTION TRENCHES SHALL COMPLY WITH MINIMUM DISTANCE REQUIREMENTS FROM WATER WELLS, WATER LINES, ETC., AS CONTAINED IN PART XII OF THIS CODE.
- IN EVERY CASE, AT LEAST **TWO TRENCHES SHALL BE USED.**
- TRENCH BOTTOMS MUST BE LEVEL
- ATTENTION MUST BE GIVEN TO THE PROTECTION OF THE SOIL
- CARE MUST BE TAKEN TO PREVENT SEALING OF THE SURFACE ON THE BOTTOM AND SIDES OF THE TRENCH.
- TRENCHES SHOULD NOT BE EXCAVATED WHEN THE SOIL IS WET ENOUGH TO SMEAR OR COMPACT EASILY.
- ALL SMEARED OR COMPACTED SURFACES MUST BE RAKED TO A DEPTH OF 1 INCH AND LOOSE MATERIAL REMOVED BEFORE THE BACKFILL IS PLACED IN THE TRENCH.

ABSORPTION TRENCHES

- CONVENTIONAL FIELD LINES SHALL CONSIST OF PERFORATED NONMETALLIC PIPE MEETING ONE OF THE FOLLOWING STANDARDS.

PVC sewer pipe and fittings (Thin wall), ASTM D2729-93
Smooth wall polyethylene (PE) pipe, ASTM F810-93, for use in waste disposal absorption fields;
SRP pipe and fittings, ASTM D2852-93.

- THE MINIMUM ACCEPTABLE DIAMETER IS **4 INCHES**
- **FIELD PIPES MUST BE LAID ON A SLOPE OF BETWEEN 2 TO 3 INCHES PER 100 FEET**

ABSORPTION TRENCHES

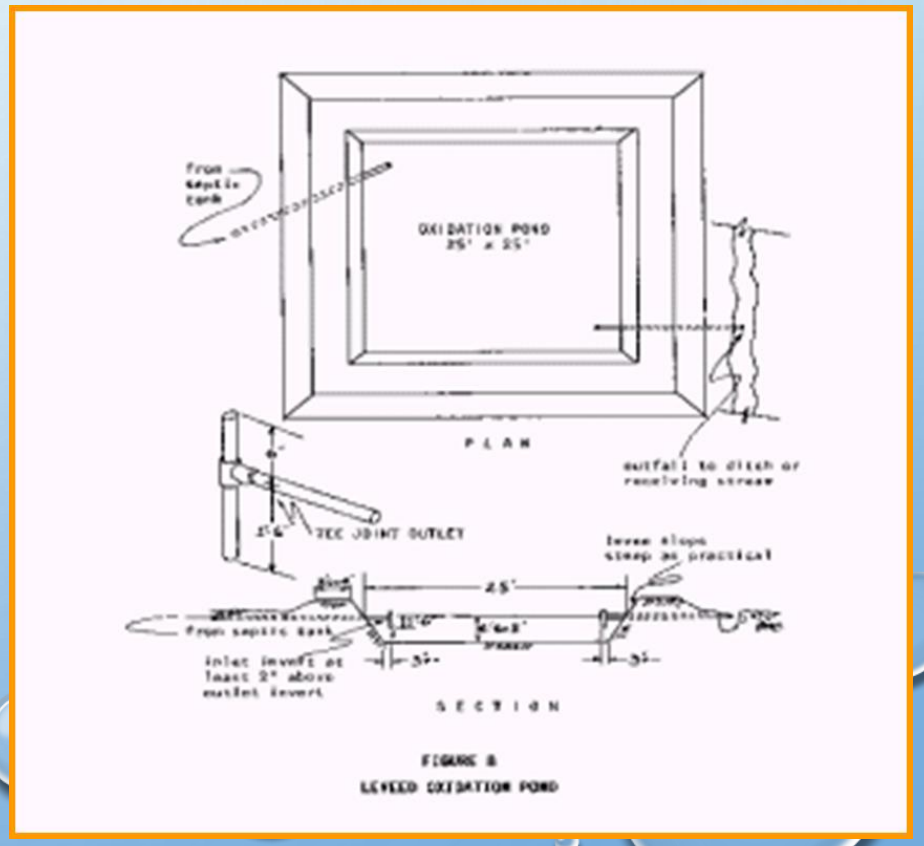
- WHERE CONVENTIONAL FIELD PIPE IS USED, IT MUST BE SURROUNDED BY CLEAN GRADED GRAVEL OR ROCK, BRICK, OR SIMILAR MATERIAL.
- BED MATERIAL SIZE RANGE FROM **ONE-HALF INCH TO 2.5 INCHES.**
- 2 INCHES ABOVE THE TOP OF THE PIPE TO AT LEAST 6 INCHES BELOW THE BOTTOM OF THE PIPE.
- EITHER UNTREATED BUILDING PAPER, OR SIMILAR PERVIOUS MATERIAL TO PREVENT THE GRAVEL FROM BECOMING CLOGGED BY THE EARTH BACKFILL.
- WHERE GRAVELLESS PIPE OR DISTRIBUTION CHAMBERS ARE USED, THE FILL MUST BE POROUS SOIL OR SAND.
- THE ABSORPTION TRENCH SHOULD BE BACKFILLED WITH 4 TO 12 INCHES OF PERVIOUS SOIL, HAND-TAMPED AND THEN OVERFILLED WITH ABOUT 4 TO 6 INCHES OF EARTH.
- SEPTIC TANKS SHOULD BE INSPECTED EVERY SIX YEARS AFTER INSTALLATION AND PUMPED, AS NECESSARY, TO PREVENT SOLID OVERFLOW TO THE SOIL ABSORPTION SYSTEM AND SUBSEQUENT CLOGGING AND FAILURE.
- ABSORPTION TRENCHES SHALL NOT BE LOCATED:
  1. BENEATH DRIVEWAYS, PARKING OR OTHER PAVED AREA
  2. IN AREAS THAT MAY BE SUBJECTED TO PASSAGE OR PARKING OF HEAVY EQUIPMENT OR VEHICLES, OR STORAGE OF MATERIALS
  3. BENEATH BUILDINGS OR OTHER STRUCTURES

OXIDATION PONDS

- **POND CONSTRUCTION:**
  - VERTICAL SIDE WALLS MUST BE OF CYPRESS OR TREATED TIMBERS OR CONCRETE BLOCKS AND SO CONSTRUCTED AS TO PROVIDE A PERMANENT STRUCTURE.
  - ALTHOUGH NOT ENCOURAGED, A POND MAY BE CONSTRUCTED WITH SLOPING SIDES AND EARTHEN LEVEES.

Figure 8 shows a design requires a minimum surface area of 625 square feet with a 5 foot liquid depth.

More space is needed and routine maintenance requirements such as levee mowing are greater. The slope of the natural earth side walls must not be shallower than one-to-one (45-degree angle).



OXIDATION PONDS

- **SIZING:**
- MINIMUM POND SIZE IS 400 SQUARE FEET WITH A 4 TO 5 FOOT AVERAGE DEPTH.
- AREA IS 400 FT^2 FOR 400 GPD.
- TOTAL VOLUME MUST BE ADEQUATE TO PROVIDE 30 DAYS DETENTION TIME AT 4 FT DEPTH.
- IF BOD IS HIGH CONSIDER INCREASED SIZE.

OXIDATION PONDS

- A SEPTIC TANK **MUST** PRECEDE THE OXIDATION POND AND MUST COMPLY WITH THE SEPTIC TANK REQUIREMENTS PRESENTED IN THESE REGULATIONS.
- NOTE: A POND REPLACES AN ADSORPTION FIELD. **SEPTIC TANK STILL REQUIRED!!!**
- DESIGNED TO TREAT SEWAGE BY THE INFLUENCE OF **AIR AND SUNLIGHT**.

OXIDATION PONDS

- **PIPING:**
- THE PIPE FROM THE SEPTIC TANK TO THE POND AS WELL AS THE OUTFALL PIPE FROM THE POND MUST BE A…
  - MINIMUM OF 4 INCHES IN DIAMETER
  - MINIMUM SLOPE OF 2 INCHES PER 100 FEET.
- INLET:
  - 4 TO 6 FEET HORIZONTALLY INTO THE POND AND BE DIRECTED DOWNWARD AT LEAST
  - 1-1/2 TO 2 FEET BELOW THE LIQUID SURFACE LEVEL.

OXIDATION PONDS

- **PIPING (CONT)**
- OUTLET
  - EXTENDS 4 TO 6 FEET HORIZONTALLY INTO THE POND AND CONSIST OF A TEE WITH THE INVERT SET AT THE OPERATING WATER LEVEL OF THE POND.
  - ONE LEG OF TEE MUST BE OPEN AND EXTEND ABOVE THE WATER LEVEL, WHILE THE DOWN LEG IS EXTENDED 1-1/2 TO 2 FEET BELOW THE WATER LEVEL.
- INVERT OF THE POND OUTLET
  - MUST BE LOWER THAN THE POND INLET INVERT.
  - ADDITIONALLY THE INVERT OF THE POND INLET MUST BE **AT LEAST 2 INCHES LOWER** THAN THE INVERT OF THE SEPTIC TANK OUTLET.

INLET AND OUTLET MUST BE AS FAR APART AS POSSIBLE TO LIMIT SHORT CIRCUITING.

OXIDATION PONDS

- **ACCESS:**
- THE POND SHALL BE ENCLOSED BY A SUITABLE CHAIN-LINK FENCE TO KEEP OUT CHILDREN, PETS, ETC.
- THE FENCE SHALL BE AT LEAST 5 FEET IN HEIGHT AND BE PROVIDED WITH A LOCKED GATE.
- **ABANDONED PONDS:**
- ABANDONED OXIDATION PONDS SHALL BE DEWATERED AND ALLOWED TO DRY.

SAND FILTERS

- **SLOW SAND FILTER: INTERMITTENT SAND**
  - ANOTHER ALTERNATIVE FOR THE SECONDARY TREATMENT OF SEPTIC TANK EFFLUENT IS A DEEP-TYPE SAND FILTER BED.
  - IT IS IMPORTANT THAT THE SAND BED REMAIN AEROBIC THROUGHOUT THE TREATMENT PROCESS.
- FOR AESTHETIC PURPOSES, A COARSE GRAVEL COVER OF CLEAN, WASHED GRAVEL, NOT TO EXCEED 6 INCHES IN DEPTH OVER THE BED IS PERMITTED.
- THE SAND FILTER BED IS CONSTRUCTED BY PLACING PERFORATED PIPE NEAR THE BOTTOM OF A RECTANGULAR AREA OF THE REQUIRED SIZE IN A LAYER OF GRAVEL COVERED BY A LAYER OF COARSE SAND 24 INCHES DEEP.
- ON TOP OF THIS ARE PLACED DISTRIBUTION LINES (PERFORATED PIPE).
- THE SEPTIC TANK EFFLUENT IS DISTRIBUTED SPEEDILY IN THE GRAVEL COVER SPREADING OVER THE TOP OF THE SAND SEEPING SLOWLY AND VERTICALLY THROUGH THE SAND TO THE BOTTOM LAYER OF GRAVEL TO BE CARRIED AWAY IN THE UNDER DRAIN LINE.

SAND FILTERS

- SAND FILTER BEDS:
  - MINIMUM WIDTH OF 12 FEET
  - MINIMUM LENGTH OF 25 FEET
- THE BED MUST BE DRAINED COMPLETELY
- TO PREVENT SAND INFILTRATION INTO THE UNDERDRAIN, A LAYER OF GRADED GRAVEL MUST BE PLACED OVER THE UNDERDRAIN LINE AND ENTIRE BOTTOM OF THE FILTER BED.
- AT LEAST TWO DISTRIBUTION LINES MUST BE PROVIDED AND THEY MUST BE SLOPED 2 TO 3 INCHES PER 100 FEET.
- THE LINES MUST HAVE
  - 20-INCH LONG FARM TILE,
  - 2 FEET TO 3-FEET LENGTHS OF VITRIFIED CLAY BELL-AND-SPIGOT SEWER PIPE LAID WITH OPEN JOINTS, OR PERFORATED NONMETALLIC PIPE (CITED IN §719(M)).
- THE ENDS OF THE DISTRIBUTION LINES MUST BE HALF-CLOSED.
- UNDERDRAIN PIPE MATERIALS ARE THE SAME AS THOSE FOR THE DISTRIBUTION PIPE, HOWEVER, THE SLOPE MUST BE NO LESS THAN 4 INCHES PER 100 FEET.
- THE FILTER BED MUST BE APPROPRIATELY PROTECTED FROM SURFACE RUNOFF WATER.
- THE FILTER BED MUST BE LOCATED **NO LESS THAN 10 FEET FROM THE PROPERTY LINE.**

SANITARY PIT PRIVY

- WHERE A DWELLING IS NOT SERVED WITH **WATER UNDER PRESSURE,** WATER CARRIAGE WASTE SYSTEMS AS COVERED HEREIN CAN NOT BE USED.
- IN THESE CASES, A PIT PRIVY OR OTHER **NON-WATER-BORNE SYSTEM** IS REQUIRED FOR EXCRETA DISPOSAL.
- PIT PRIVIES MUST BE…
  - LOCATED ON THE DOWNGRADE FROM WATER WELLS AND WATER SUPPLY LINES
  - LOCATED IN ACCORDANCE WITH THE MINIMUM DISTANCE REQUIREMENTS AS CONTAINED IN PART XII OF THIS CODE.
  - LOCATED 4 FEET FROM ANY FENCE
  - HOUSED AS SEPARATE UNITS
  - LOCATED AT LEAST **10 FEET FROM THE PROPERTY LINE**

NON-WATERBORNE SYSTEMS

- PIT TOILET (OR PRIVY)
- VAULT
- PAIL
- CHEMICAL TOILET
- INCINERATOR TOILET
- COMPOSITING TOILET

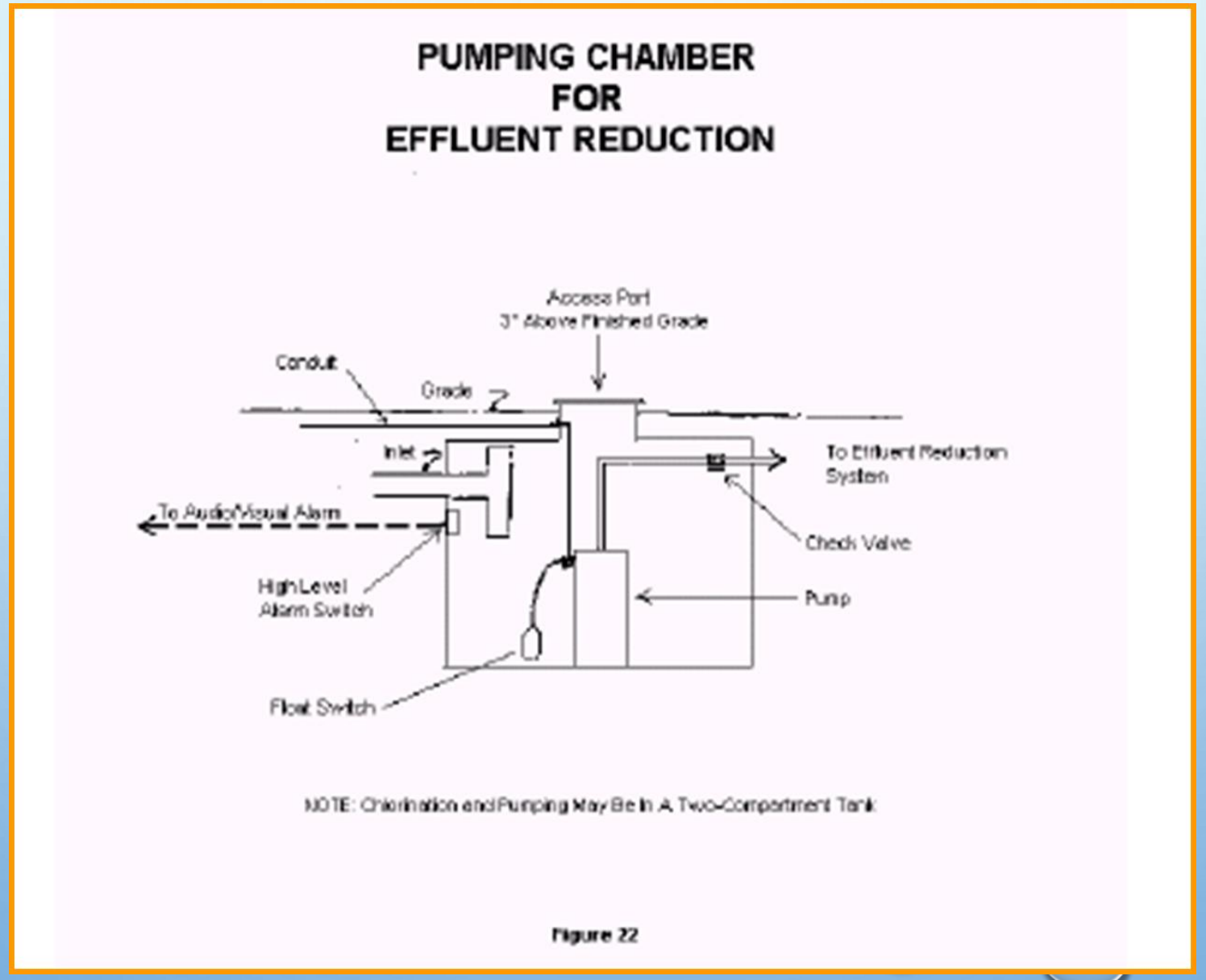
- NON-WATERBORNE SYSTEMS LOCATION
  - SAFE-DISTANCE FROM ANY WELL, SPRING, OR OTHER SOURCE OF WATER SUPPLY
  - SUCH DISTANCES SHALL CONFORM TO THE REQUIREMENTS OF PART XII OF THIS CODE.
  - IN SOIL TYPES OR GEOLOGICAL FORMATIONS WHERE SOURCES OF WATER SUPPLIES MAY BE POLLUTED.

SANITARY PIT PRIVY

- **<u>DEFECTS IN MAINTENANCE AND OPERATION OF SUCH INSTALLATIONS:</u>**

1. EVIDENCE OF CAVING AROUND HE EDGES OF THE PIT
2. SIGNS OF OVERFLOW OR OTHER EVIDENCE THAT THE PIT, VAULT, OR PAIL IS FULL
3. EVIDENCE OF LIGHT ENTERING THE PIT EXCEPT THROUGH THE SEAT WHEN THE SEAT COVER IS RAISED
4. SEAT COVER NOT IN PLACE
5. BROKEN, PERFORATED, OR UNSCREENED VENT PIPES
6. UNCLEANLINESS OF ANY KIND IN THE TOILET BUILDING

PUMPING STATIONS



PUMPING STATIONS

- WHEN THE ELEVATION OF A SITE PREVENTS THE USE OF GRAVITY FLOW TO CONVEY LIQUID FROM ONE LOCATION TO ANOTHER, A PUMPING STATION CONSISTING OF:
- HOLDING TANK
- PUMP(S)
- PIPING
- ELECTRICAL CONTROLS
- OTHER EQUIPMENT AS NECESSARY, MUST BE PROVIDED

PUMPING STATIONS

- PUMPS MUST BE PROVIDED WITH IMPELLERS AND CASINGS CONSTRUCTED OF CORROSION RESISTANT MATERIALS.
- PUMPS SHALL BE PROVIDED TO ACCOMMODATE REQUIRED ELEVATION AND HYDRAULIC HEADS AND PEAK FLOW RATES, AND BE CYCLED IN A MANNER NOT TO BE UNDULY DISRUPTIVE TO ANY DOWNSTREAM SYSTEM.
- HOLDING TANKS SHALL BE CONSTRUCTED AND INSTALLED WITH SUITABLE FOUNDATIONS TO PREVENT FLOATING OF THE TANK DUE TO HIGH WATER TABLE LEVELS.
- PUMP STATIONS SHOULD BE WATERTIGHT.
    - ALL WALL SEAMS, SEAMS BETWEEN WALLS AND TANK FLOOR, AND OPENINGS SUCH AS FOR PIPES AND WIRING SHALL BE SEALED WATERTIGHT.
- ADDITIONALLY, ALL HOLDING TANK COVERS AND ACCESS OPENINGS SHALL BE ATTACHED IN WATERTIGHT MANNER BY GASKETS OR GROOVES AND SHOULD BE SUFFICIENTLY ABOVE THE GROUND, BUT IN NO CASE LESS THAN 3 INCHES ABOVE GROUND, TO PREVENT THE ENTRANCE OF SURFACE RUNOFF WATER.

PUMPING STATIONS

- **COVER:**
- THE HOLDING **TANK** SHALL HAVE A MINIMUM DIAMETER OR DIMENSION OF **24 INCHES**.
- THE **COVER** SHALL BE IN NO CASE LESS THAN 12 INCHES IN DIAMETER OR DIMENSION.
- PUMPS SHALL BE INSTALLED TO ALLOW…
  - REMOVAL AND/OR MAINTENANCE OF THE PUMP WITHOUT NECESSITATING ENTRY INTO THE HOLDING TANK BY PERSONNEL
  - QUICK, CONVENIENT DISCONNECTION FROM DISCHARGE PIPING AND ELECTRICAL WIRING.
  - PROVISIONS FOR LIFTING THE PUMP FROM THE HOLDING TANK WITH MINIMAL EXPOSURE TO THE LIQUID IN THE TANK.
- SUITABLE LEVEL CONTROL DEVICES MUST BE PROVIDED TO CONTROL PUMP OPERATION.
- CONTROL LEVELS SHALL PROVIDE 3 OPTIONS:
  - “PUMP OFF”
  - “PUMP ON”
  - “HIGH WATER ALARM”
- ALL MATERIALS UTILIZED WITHIN THE HOLDING TANK MUST BE RESISTANT TO H_2S CORROSION.

PUMPING STATIONS

- THE "PUMP OFF" LEVEL SHALL BE SET AT THE MINIMUM ELEVATION AS RECOMMENDED BY THE SPECIFIC PUMP'S MANUFACTURER.
- THE "PUMP ON" LEVEL SHALL BE SET AT ELEVATION TO PROVIDE A MINIMUM WORKING VOLUME OF 10 PERCENT OF THE AVERAGE DAILY DESIGN FLOW OF THE TREATMENT SYSTEM.
- THE "HIGH WATER ALARM" LEVEL SHALL BE SET SO AS TO PROVIDE FOR A NET STORAGE VOLUME BETWEEN THE "PUMP ON" LEVEL AND THE "HIGH WATER ALARM LEVEL" OF 10 PERCENT OF THE AVERAGE DAILY DESIGN FLOW OF THE TREATMENT SYSTEM.
- A RESERVE VOLUME MAY BE PROVIDED BETWEEN THE "HIGH WATER LEVEL" AND THE INVERT OF THE INLET PIPE TO THE HOLDING TANK.

PUMPING STATIONS

- **<u>ELECTRICAL AND CONTROLS:</u>**
- YOU SHALL PROVIDE:
  - AN AUDIBLE AND VISUAL “HIGH WATER ALARM”
  - A **RESET BUTTON**
  - GROUND FAULT CIRCUIT INTERRUPT (GFCI) REQUIRED FOR MECHANICAL PLANTS SHOULD ALSO BE USED FOR PUMP STATIONS.
- CONDUIT MUST BE ACCOUNTED FOR IN ALL ELECTRICAL WORK.
- ELECTRICAL CONNECTIONS TO THE MAIN PANEL IN THE HOUSE MUST BE MADE ACCORDING TO PREVAILING ELECTRICAL CODES.
- THE PUMP MUST BE WIRED FOR AUTOMATIC LEVEL CONTROL WITH A MANUAL OVERRIDE LOCATED AT THE CONTROL PANEL.

PUMPING STATIONS

- **PIPE:**
- RAW SEWAGE PUMPS AND PIPING MUST ACCOMMODATE THE PASSAGE OF 2-INCH SOLIDS.
- PIPING SHOULD NOT BE LESS THAN 1.25 INCHES IN DIAMETER AND BE CAPABLE OF WITHSTANDING A PRESSURE OF 75 PSI.

CHLORINATORS

- CALCIUM HYPOCHLORITE, **LABELED FOR WASTEWATER DISINFECTION,** SHALL BE ADDED IN SUFFICIENT CONCENTRATIONS TO MAINTAIN A **MINIMUM RESIDUAL OF 0.5 PPM** TOTAL CHLORINE IN THE EFFLUENT.
- IN ORDER TO ACHIEVE THE REQUIRED CHLORINE CONTACT TIME, A BAFFLED CHLORINE CONTACT CHAMBER SHALL BE USED.

Disinfectant Chamber Minimum Liquid Capacity	
Treatment Capacity of Sewerage System	**Contact Chamber Liquid Capacity**
500 GPD or less	30 gallons
501 - 750 GPD	45 gallons
751 - 1000 GPD	60 gallons
1001 - 1500 GPD	90 gallons

CHLORINATORS

- TABLET CHLORINATORS: PROCEDURES & SCHEDULES
  - RESTOCK CHLORINE FEED TUBES AS NECESSARY (AVERAGE EVERY 6 MONTHS FOR SINGLE HOME, EVERY MONTH FOR CLUSTER)
  - CLEAN UNIT INTERNALLY EVERY 6-12 MONTHS BY FLUSHING OR PUMPING OUT, SCRAPING, ETC.
- MONITOR CHLORINE RESIDUAL WITH COLOR INDICATOR AND RECORD EVERY SIX MONTHS FOR SINGLE HOME, MONTHLY FOR CLUSTER, OR AS REQUIRED BY LAW. ADJUST RESIDUAL BY VARYING THE NUMBER OF TUBES TO BE STOCKED.

EFFLUENT REDUCTION SYSTEMS

- INDIVIDUAL SEWAGE SYSTEMS, WITH A CAPACITY UP TO AND INCLUDING 1500 GPD, THAT PRODUCE A TREATED, OFF-SITE EFFLUENT, SHALL INCLUDE AN EFFLUENT REDUCER AS PART OF THE OVERALL SYSTEM.
- ALL EFFLUENT REDUCTION SYSTEMS SHALL BE INSTALLED BY A LICENSED INSTALLER. EXISTING FIELD LINES **CANNOT** BE USED AS THE EFFLUENT REDUCTION SYSTEM.
- THE SIZE OF THE EFFLUENT REDUCTION SYSTEM INSTALLED HAS TO CORRESPOND WITH THE RECOMMENDED SIZE OF THE SEWERAGE SYSTEM.
- FOR EXAMPLE, IF A 750 GPD PLANT IS REQUIRED ON THE "APPLICATION FOR PERMIT FOR INSTALLATION OF ON-SITE WASTEWATER DISPOSAL SYSTEM" (LHS-47), THE APPLICANT MAY INSTALL A 1000 GPD PLANT, HOWEVER THE SIZE OF THE EFFLUENT REDUCTION SYSTEM ONLY HAS TO CORRESPOND TO THE MINIMUM SIZE REQUIRED FOR A 750 GPD PLANT.
- THE SAMPLE PORT FOR A SEWERAGE SYSTEM MUST BE INSTALLED IMMEDIATELY DOWNSTREAM OF THE SYSTEM AND IN ACCORDANCE WITH THE APPROPRIATE EDITION AND SECTION OF NSF STANDARD 40, AS CURRENTLY PROMULGATED, AS WELL AS THE APPLICABLE PROVISIONS OF THIS CODE.

EFFLUENT REDUCTION FIELD

- THIS SYSTEM IS INSTALLED DOWNSTREAM OF A MECHANICAL TREATMENT PLANT OR OTHER SEWAGE TREATMENT SYSTEM LISTED IN CHAPTER 7 SUBCHAPTER B OF THIS CODE THAT PRODUCES AN EFFLUENT, BUT DOES NOT BY DESIGN SIGNIFICANTLY REDUCE THAT EFFLUENT. THE EFFLUENT REDUCTION FIELD IS ESSENTIALLY A SOIL ABSORPTION FIELD AS DESCRIBED IN §719 OF THIS SUBCHAPTER, BUT WITH MODIFICATION AS NOTED IN THIS SECTION. SECTION 1501.B.13 (FIGURE 15) HAS A DIAGRAM WITH SPECIFICATIONS AND CROSS-SECTIONS OF THE EFFLUENT REDUCTION FIELD.

1. IF THERE IS NOT SUFFICIENT GRADE TO INSTALL THE SEWERAGE SYSTEM AND THE EFFLUENT REDUCTION FIELD WITH GRAVITY FLOW TO THE DISCHARGE POINT, THEN A PUMP STATION IN COMPLIANCE WITH APPLICABLE PROVISION OF THIS CODE MUST BE INSTALLED.

2. THE FORCE OF THE PUMPED EFFLUENT MUST BE REDUCED BY USE OF A DISTRIBUTION BOX, "TEE," OR SIMILAR APPURTENANCE.

3. THE EFFLUENT REDUCTION FIELD TRENCHES SHALL BE AT LEAST 18 INCHES WIDE AND BETWEEN 16 TO 24 INCHES IN DEPTH.

4. THE BOTTOM OF THE EFFLUENT REDUCTION FIELD MUST BE LEVEL.

EFFLUENT REDUCTION FIELD

5. THE FILL OR COVER MATERIAL SHALL BE OF POROUS SOIL OR SAND WHICH ALLOWS THE PASSAGE OF WATER IN ALL DIRECTIONS, WITH SOD STARTED ON TOP. FILL SHOULD BE AT LEAST 4 TO 6 INCHES ABOVE GRADE AND SPREAD AT LEAST 3 TO 4 FEET ON EITHER SIDE OF THE TRENCH.

6. THE EFFLUENT REDUCTION FIELD (ERF) MUST BE INSTALLED A MINIMUM OF 10 FEET FROM ANY PROPERTY LINE. IN ADDITION THE ERF FIELD LOCATION SHALL COMPLY WITH THE MINIMUM DISTANCE REQUIREMENTS FROM WATER WELLS AND SUCTION LINES, WATER PRESSURE LINES, ETC., AS CONTAINED IN PARTS XII AND XIV OF THIS CODE.

EFFLUENT REDUCTION FIELD

- IF MORE THAN ONE ABSORPTION TRENCH IS USED TO PROVIDE THE MINIMUM REQUIRED LENGTH OF THE EFFLUENT REDUCTION FIELD, THE DISTANCE BETWEEN INDIVIDUAL TRENCHES MUST BE AT LEAST 6 FEET WITH ONE DISCHARGE PIPE PROVIDED.
- THE PIPE FROM THE END OF THE EFFLUENT REDUCTION FIELD TO THE DISCHARGE POINT MUST BE SOLID.
- GRAVELLESS PIPE OR OTHER DISTRIBUTION CHAMBERS MAY BE USED IN LIEU OF CONVENTIONAL SOIL ABSORPTION PIPE. IF GRAVELLESS PIPE IS USED, THE FILL MUST BE POROUS SOIL OR SAND WHICH ALLOWS THE PASSAGE OF WATER IN ALL DIRECTIONS, WITH A 6-INCH LAYER BELOW THE PIPE AND FILLED 4 TO 6 INCHES ABOVE GRADE AND SPREAD 3 TO 4 FEET ON EITHER SIDE OF THE TRENCH.
- NOTE: THE MINIMUM LENGTH OF EFFLUENT REDUCTION THAT SHALL BE PROVIDED WITH AN AEROBIC TREATMENT UNIT IS **100'**
- NOTE: A BACKWATER VALVE MUST BE PROVIDED AT THE END OF THE EFFLUENT REDUCTION FIELD WHENEVER THE DISCHARGE LINE IS LESS THAN **12** INCHES ABOVE THE DITCH FLOW LINE.

ROCK-PLANT FILTER

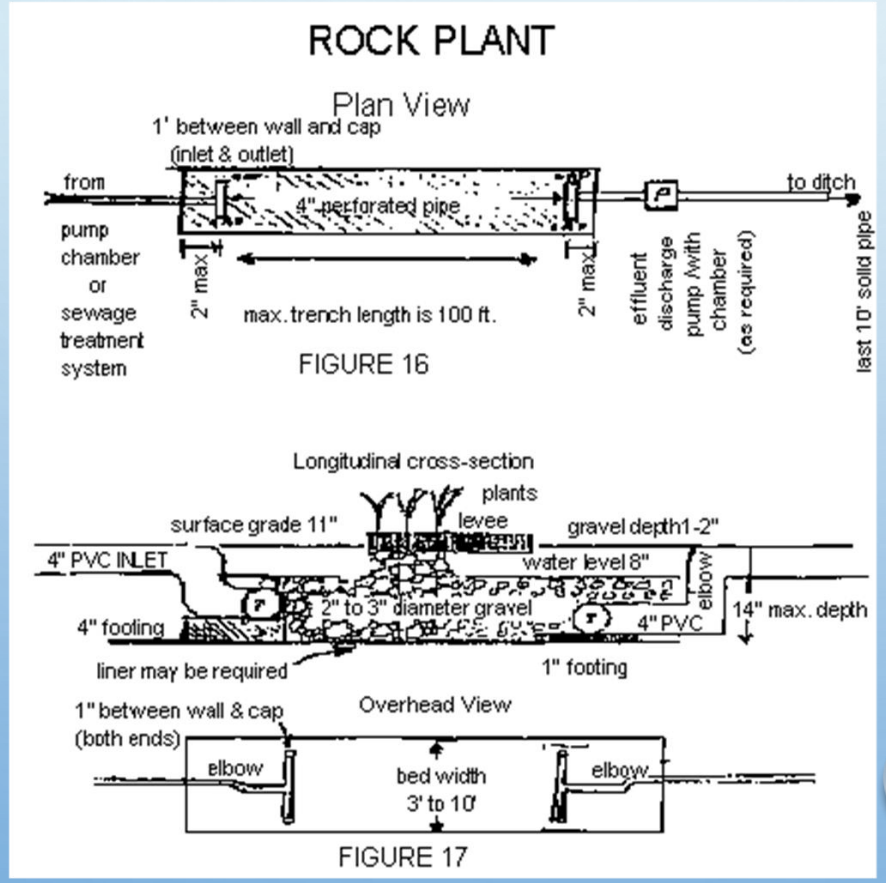
- ALL ROCK PLANT FILTERS MUST BE A MINIMUM OF 5 FEET WIDE TO A MAXIMUM OF 10 FEET WIDE.
- THE SQUARE FOOTAGE WILL BE DETERMINED BY THE TREATMENT CAPACITY OF THE SEWERAGE SYSTEM.
- THE ROCK PLANT FILTER (RPF) MUST BE INSTALLED A MINIMUM OF 10 FEET FROM ANY PROPERTY LINE. IN ADDITION, THE RPF LOCATION SHALL COMPLY WITH THE MINIMUM DISTANCE REQUIREMENTS FROM WATER WELLS AND SUCTION LINES, WATER PRESSURE LINES, ETC., AS CONTAINED IN PARTS XII AND XIV OF THIS CODE.
- IF THERE IS NOT SUFFICIENT GRADE TO INSTALL THE SEWERAGE SYSTEM AND THE ROCK PLANT FILTER WITH GRAVITY FLOW TO THE DISCHARGE POINT, THEN A PUMPING STATION IN COMPLIANCE WITH APPLICABLE PROVISIONS OF THIS PART MUST BE INSTALLED.
- IN ORDER TO PREVENT BACKFLOW, A BACKWATER VALVE IS REQUIRED WHENEVER THE DISCHARGE LINE IS LESS THAN 12 INCHES ABOVE THE DITCH FLOW-LINE.
- ONLY A STANDARD SHAPE BED MAY BE INSTALLED WITH A MINIMUM WIDTH OF 5 FEET AND OF SUCH LENGTH AS TO PROVIDE THE REQUIRED SQUARE FOOTAGE.

ROCK-PLANT FILTER

- PLANS FOR ANY OTHER CONFIGURATION MUST BE SUBMITTED FOR REVIEW AND APPROVAL TO THE SANITARIAN REGIONAL DIRECTOR.
- A LINER WILL BE REQUIRED WHEN THE GROUND WATER LEVEL IS WITHIN 24 INCHES OF THE BOTTOM OF THE TRENCH.
- THE POLYETHYLENE LINER MAY BE OF MORE THAN ONE LAYER PROVIDED A TOTAL THICKNESS OF 16 MIL IS ACHIEVED.
- WHEN A LINER IS NOT REQUIRED, THE USE OF LANDSCAPE FABRIC IS HIGHLY RECOMMENDED TO PREVENT WEED INTRUSION.
- THE BOTTOM OF THE BED MUST BE LEVEL AND BE NO DEEPER THAN 14 INCHES. A DEPTH OF APPROXIMATELY 10 TO 12 INCHES IS BEST.
- GRAVEL MUST BE 2-3 INCHES IN DIAMETER AND LAID TO A DEPTH OF 12 INCHES.
- AN 8-INCH WATER LEVEL MUST BE MAINTAINED. GRAVEL SHOULD FILL THE FILTER BED TO ABOVE SURFACE GRADE TO PREVENT EROSION.
- THE MINIMUM 4-INCH PERFORATED INLET PIPE MUST BE LOCATED NO CLOSER THAN 4 INCHES FROM THE BOTTOM OF THE BED AND SUPPORTED BY A FOOTING OF NONCORROSIVE MATERIAL, SUCH AS CONCRETE OR TREATED TIMBER.
- THE INLET SHOULD EXTEND NO MORE THAN 2 FEET INTO THE ROCK PLANT BED AND MUST BE PROVIDED WITH A "TEE" (WITH ENDS CAPPED) EXTENDING THE WIDTH OF THE BED TO WITHIN 1 FOOT OF THE SIDE WALLS.

ROCK-PLANT FILTER

- THE OUTLET PIPE SHALL ALSO BE SET IN A FOOTING OF NONCORROSIVE MATERIAL (CONCRETE OR TREATED TIMBER) ON THE BOTTOM OF THE BED WITH THE SAME "TEE" AND CONFIGURATION. THE OUTLET MUST BE ELBOWED UP AND OUT [§1501.B.14 (FIGURE 17)].
- DO NOT ALLOW PLANTS TO GROW WITHIN 3 FEET OF THE INLET AND OUTLET OF THE BED.
- A LEVEE SUPPORT SYSTEM AROUND THE PERIMETER OF THE FILTER SHOULD BE CONSTRUCTED TO EXCLUDE SURFACE WATER. THE USE OF LANDSCAPE TIMBERS FOR THIS PURPOSE IS ACCEPTABLE. OTHER MATERIALS, SUCH AS CONCRETE, CAN ALSO BE USED.



SPRAY IRRIGATION

- THE SPRAY IRRIGATION SYSTEM [§1501.B.15 (FIGURE 18)] USES AN ELECTRIC PUMP THAT DISTRIBUTES THE EFFLUENT TO THE YARD THROUGH SPRINKLER HEADS. IT IS HIGHLY RECOMMENDED FOR SPRAY IRRIGATION EFFLUENT TO BE CHLORINATED IN A CONTACT CHAMBER, SIZED ACCORDING TO §731.A, FOLLOWING THE TREATMENT UNIT AND PRECEDING DISCHARGE. AT A PREDETERMINED LEVEL, A FLOAT SWITCH ACTIVATES A PUMP THAT FORCES THE EFFLUENT THROUGH PIPING TO POP-UP OR ELEVATED ROTATING TYPE SPRINKLER HEADS. EVAPORATION AND SOIL INFILTRATION OF THE DISPERSED EFFLUENT SHOULD PREVENT ANY RUN-OFF FROM OCCURRING.

1. A PUMP STATION SYSTEM MUST BE SIZED ACCORDING TO USE AND COMPLY WITH THE APPLICABLE PROVISIONS OF THIS PART.
2. THE PRESSURE PUMP MUST BE A MINIMUM OF ONE-HALF HORSE POWER CAPABLE OF PRODUCING A MINIMUM FLOW OF 12 GALLONS PER MINUTE AND MAINTAINING 25 POUNDS PER SQUARE INCH AT ALL SPRINKLER HEADS.
3. THE PUMP WILL BE ACTIVATED BY A HIGH/LOW WATER SWITCH THROUGH AN AUTOMATIC ON/OFF SWITCH. THE PUMP MUST BE DEACTIVATED THROUGH A LOW-VOLUME CUT OFF SWITCH.

SPRAY IRRIGATION

- A TIME CYCLE DEVICE MAY BE USED TO ALLOW FOR SPECIFIC SPRINKLING TIMES (E.G., NIGHTTIME, AFTERNOON). THE PUMP CHAMBER MUST BE OF ADEQUATE LIQUID CAPACITY TO ALLOW SUFFICIENT STORAGE TO ACCOMMODATE THE DESIRED TIME SETTINGS.
- A MINIMUM OF THREE 4-INCH TYPE SPRINKLER HEADS **CODED FOR WASTEWATER EFFLUENT** SPACED A MINIMUM OF 40 FEET APART ARE REQUIRED.
- THE SPRAY IRRIGATION SPRINKLERS SHALL COMPLY WITH AMERICAN SOCIETY OF AGRICULTURAL ENGINEERS (ASAE) STANDARD S 398.1 (PROCEDURE FOR SPRINKLER TESTING AND PERFORMANCE REPORTING).
- THE SLOPE OF THE LAND SHALL BE SUCH AS TO FACILITATE DRAINAGE AWAY FROM ANY WATER WELL OR WELL SUCTION LINES. THE EDGE OF THE SPRAY AND ITS DRAINAGE MUST BE A MINIMUM OF 50 FEET FROM ANY PRIVATE WATER WELL AND ITS ASSOCIATED SUCTION LINES AND 10 FEET FROM ANY PROPERTY LINE. THE EDGE OF THE SPRAY AND ITS DRAINAGE SHALL BE A MINIMUM 100 FOOT FROM PUBLIC ANY WATER SUPPLY WELL AND ITS ASSOCIATED SUCTION LINES, IF ANY. IN ADDITION, THE EDGE OF THE SPRAY AND ITS DRAINAGE SHALL BE A MINIMUM OF 25 FEET FROM ANY POTABLE WATER (PRESSURE) LINES. AS CONTAINED IN PARTS XII AND XIV OF THIS CODE.
- EXCEPTIONS DUE TO LOT SIZE, TOPOGRAPHY OR OTHER CONSTRAINTS MAY BE AUTHORIZED BY THE SANITARIAN PARISH MANAGER WITH WRITTEN NOTIFICATION OF SUCH AUTHORIZATION TO THE SANITARIAN REGIONAL DIRECTOR AND A COPY ATTACHED TO THE LHS-47.

OVERLAND FLOW

- WHEN THE SIZE OF THE PROPERTY IS 3 ACRES OR MORE, AN OVERLAND FLOW MAY BE UTILIZED.
- THE DISCHARGE THROUGH PERFORATED PIPE MUST BE DISTRIBUTED IN SUCH A MANNER AS TO CONFINE THE EFFLUENT ON THE PROPERTY OWNED BY THE GENERATOR.
- THE LOCATION OF THE OVERLAND DISCHARGE MUST HAVE A PERMANENT VEGETATIVE COVER.
- THE SLOPE OF THE LAND SHALL BE SUCH AS TO FACILITATE DRAINAGE AWAY FROM ANY WATER WELL OR WELL SUCTION LINES. THE DISCHARGE POINT AND THE FIELD OF FLOW SHALL BE A MINIMUM OF 50 FEET FROM ANY PRIVATE WATER WELL AND ITS ASSOCIATED SUCTION LINES. THE DISCHARGE POINT AND THE FIELD OF FLOW SHALL BE A MINIMUM 100 FOOT FROM PUBLIC WATER SUPPLY WELLS AND ITS ASSOCIATED SUCTION LINES, IF ANY. IN ADDITION, THE DISCHARGE POINT AND THE FIELD OF FLOW SHALL BE A MINIMUM OF 25 FEET FROM ANY POTABLE WATER (PRESSURE) LINES. AS CONTAINED IN PARTS XII AND XIV OF THIS CODE.
- A HEADER SHOULD BE USED AT THE END OF THE DISCHARGE LINE TO HELP DISPERSE THE EFFLUENT AND TO DISCOURAGE CHANNELIZATION. THE POINT OF DISCHARGE MUST BE SUCH THAT THERE IS AT LEAST A 200 FOOT FLOW OF EFFLUENT OVER THE PROPERTY OF THE GENERATOR.
- CONSTRUCTION OF THE SYSTEM SHOULD BE SUCH THAT IT IS NOT CLOSER THAN 20 FEET FROM THE PROPERTY LINE.

LICENSING

- **MANUFACTURER LICENSE:**
  - FOR A PERSON WHO WISHES TO ENGAGE IN THE BUSINESS OR PRACTICE OF CONSTRUCTING AN INDIVIDUAL MECHANICAL SEWERAGE TREATMENT SYSTEM.
- **INSTALLER LICENSE:**
  - FOR A PERSON WHO WISHES TO PERFORM INSTALLATIONS OR MAINTENANCE OF INDIVIDUAL SEWERAGE SYSTEMS
- **SUB-MANUFACTURER LICENSE:**
  - A PERSON OR ENTITY AUTHORIZED BY A LICENSED MANUFACTURER TO CONSTRUCT, OR ASSEMBLE INDIVIDUAL SEWERAGE SYSTEMS IS REQUIRED TO OBTAIN AN INDIVIDUAL SEWAGE SYSTEM SUB-MANUFACTURER LICENSE.

LICENSING

- FOR A COMBINATION LICENSE, THE APPLICANT MUST SUBMIT
  - THE LICENSE APPLICATION
  - EVIDENCE OF SUCCESSFUL COMPLETION OF EXAM
  - ENDORSEMENT FROM THE LICENSED MANUFACTURER FOR THE BRAND OF PLANT HE OR SHE WISHES TO INSTALL.
- ALL PERSONS SEEKING TO APPLY FOR A LICENSE MUST COMPLETE A TRAINING COURSE APPROVED BY THE SANITARIAN SERVICES SECTION OF THE OFFICE OF PUBLIC HEALTH.
- ALL LICENSEES MUST REPEAT THIS TRAINING COURSE EVERY **FIVE YEARS**.
- IF YOU CAN'T ATTEND THIS COURSE, YOU MAY BE ISSUED A TEMPORARY LICENSE.
- APPLICANTS FOR AN INSTALLER/MAINTENANCE PROVIDER LICENSE MUST SUBMIT, ALONG WITH AN APPLICATION,…
  - PROOF THAT HE OR SHE HAS SECURED GENERAL LIABILITY INSURANCE IN AN AMOUNT NO LESS THAN $100,000 -- $300,000.

LICENSING

- TWO TYPES OF LICENSES ARE OFFERED:
  - **BASIC LICENSE** FOR INSTALLATION AND MAINTENANCE OF FACILITIES OTHER THAN INDIVIDUAL MECHANICAL PLANTS, AND;
  - **COMBINATION LICENSE** WHICH ALLOWS THE INSTALLATION AND MAINTENANCE OF INDIVIDUAL MECHANICAL PLANTS AS WELL. A COMBINATION LICENSE MAY BE OBTAINED ONLY IN CONJUNCTION WITH A BASIC LICENSE, AND IS CONSIDERED TO BE A SEPARATE LICENSE.
- ALL LICENSES SHALL BE ISSUED BY THE DEPARTMENT OF HEALTH AND HOSPITALS, OFFICE OF PUBLIC HEALTH, UPON SUCCESSFUL FULFILLMENT.

LICENSING

- RENEWAL OF LICENSE:
  - ALL LICENSES EXPIRE ON JANUARY 31 OF EACH YEAR.
  - APPLICATIONS FOR RENEWAL ARE TO RECEIVED NO LATER THAN **DECEMBER 1** OF EACH YEAR.
- SUSPENSION OR REVOCATION OF LICENSE:
  - LICENSES MAY BE SUSPENDED FOR NONCOMPLIANCE WITH REQUIREMENT OF THIS CODE.
  - IN CASE OF VIOLATIONS, LICENSES MAY BE SUSPENDED PENDING AN ADMINISTRATIVE HEARING.
- REINSTATEMENT OF LICENSE:
  - UPON REVOCATION OF LICENSE, THE LICENSE HOLDER SHALL NOT BE ELIGIBLE FOR ANY LICENSE FOR A MINIMUM PERIOD OF **2 YEARS** FROM THE DATE OF REVOCATION FOR CAUSE.
- FOR A BASIC LICENSE, THE APPLICANT SHALL PROVIDE…
  - THE LICENSE APPLICATION
  - EVIDENCE OF SUCCESSFUL COMPLETION OF AN EXAMINATION
  - AFFIDAVIT CERTIFYING THAT HE OR SHE HAS OBTAINED, READ, AND UNDERSTANDS THE REQUIREMENTS FOR THE MINIMUM DISTANCE TO SOURCES OF CONTAMINATION IN PART XII.