

## *Dosing of Leachlines*

### **PURPOSE**

The purpose of these criteria is to provide a minimum basis for satisfying the dosing requirement of the California Plumbing Code for new and replacement installations of greater than five hundred (500) lineal feet of leachline.

### **AUTHORITY**

Sonoma County Code Chapter 7  
California Plumbing Code

This policy supersedes Division of Environmental Health Instruction 4-81.

### **PROCEDURE**

Environmental Health Specialists are to familiarize themselves with and apply the requirements and standards contained herein in evaluating pertinent proposals.

#### A. General

1. These Criteria apply to all new and replacement sewage disposal systems of greater than 500 lineal feet of leachline for which a permit is applied after the effective date.
2. Designs for systems utilizing dosing tanks and siphons or pumps and designs incorporating 2 or more smaller systems shall be submitted by a Registered Civil Engineer, Registered Environmental Health Specialist, Licensed Class 36 Contractor (plumbing contractor who has received license to perform all plumbing associated with construction of building), or Licensed C-42 Contractor. Designs incorporating alternating leachfields will not require a Registered Civil Engineer or Registered Environmental Health Specialist design unless another design criteria of the system stipulates a Registered Civil Engineer or Registered Environmental Health Specialist design (such as a "Filled Land" system).
3. Systems shall be designed for equal distribution on level sites.

#### B. Basic Criteria

Whenever more than 500 lineal feet of leachline are required, an evaluation, based on appropriate percolation tests, should be made of the possibility of increasing the depth of rock below the pipe in order to reduce the required lineal footage to less than 500 feet.

1. For installations of from 500 to 1000 lineal feet of leachline, the dosing requirement may be satisfied by any one of the following approaches.

- a. Dosing tank with an automatic siphon or pump which discharges the tank once every 3 or 4 hours.
  - b. Alternating leach fields with an approved diversion valve.
  - c. Two (2) or more septic tank / leachfield systems, with neither system exceeding 500 lineal feet of leachline.
2. For installations of greater than 1000 lineal feet of leachline, the dosing requirement may be satisfied by any of the following approaches:
- a. Dosing tank with two (2) siphons or pumps dosing alternately and each serving one-half ( $\frac{1}{2}$ ) of the leachfield.
  - b. Three (3) or more septic tank / leachfield systems, with no system exceeding 500 lineal feet of leachline.

3. Specific Design Criteria

1. Dosing tank with siphon (s)

- a. Design for the sewage disposal system shall be prepared as specified in section A.2.
- b. The design shall provide for dosing once every three or four hours.
- c. The dosing tank shall have a capacity equal to 60 to 75% of the interior capacity of the pipe to be dosed at one time.

Examples:    3" leachline pipe for 500 lineal feet = 185 gallon capacity in the pipe  
                  dosing of 60% = 111 gallons per dose  
                  dosing of 75% = 139 gallons per dose

                  4" leachline pipe for 500 lineal feet = 327 gallon capacity in the pipe  
                  dosing of 60% = 196 gallons per dose  
                  dosing of 75 = 245 gallons per dose

- d. A modified precast septic tank may be used for the dosing tank.
- e. The supporting data to the design shall include manufacturer's specifications for the siphon(s) to be installed.
- f. Dosing tanks shall be filled to the flow line prior to requesting inspection and a flow test through the system shall be performed during the inspection.

2. Dosing tank with pump(s)

- a. Dosing pumps shall meet all other basic design criteria of the Well and Septic Section relating to sewage effluent sump and pump requirements.

3. Alternating leachfields

- a. Construct two primary leachfields divided by an approved diversion valve which can be alternated on at least a yearly basis.
- b. Each primary field shall be equal to 75% of the lineal requirement determined from the standard table of the Well and Septic Section.

4. Multiple septic tank - leachfield systems

- a. Design for the sewage disposal systems shall be prepared by a Registered Civil Engineer or a Registered Environmental Health Specialist.
- b. A floor plan shall be submitted which specifically delineates which plumbing fixture(s) are to be served by each septic system.
- c. Projected sewage discharge is based on 150 gallons per bedroom. The percent of waste discharge created by various uses is:

toilet	38.5%
laundry	16.0%
bathing	28.0%
kitchen	9.5%
cleaning	2.5%
misc.	5.5%

- d. Total projected waste discharge shall be determined followed by an allocation of the projected % of waste produced to the septic system indicated in the floor plan.

**Approved by:**

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/s/ Richard L. Holmer

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