

**INDUSTRIAL PROCESS SUBSURFACE WASTEWATER SYSTEM
DESIGN CRITERIA FOR
DOG KENNELS AND/OR VET CLINICS WITHOUT X-RAY FACILITIES***

1. Flow shall be determined as follows:

Dog Kennel Only:

10 gpd per dog or per run, whichever is greater, plus 25 gpd per employee.

Vet Clinic Only:

150 gpd/1000 sq. ft. of clinic area plus 25 gpd per employee.

Vet Clinic and Dog Kennel:

150 gpd/1000 sq. ft. of clinic area plus 25 gpd per employee plus 10 gpd per dog boarded.

2. Screens to catch hair and other solids shall be provided at the floor drains or, if a trench system is used, at the inlet to the collection pipe
3. Rain water must be prevented from entering the wastewater subsurface system.
4. Two state-approved septic tanks, with access openings extended to finished grade shall be installed in series. The capacity of each tank shall be sufficient to handle the total flow and shall be determined in accordance with 15A NCAC 18A. 1952(b).
5. The first septic tank shall receive only process wastewater generated at the dog kennels (no toilet wastewater). The second septic tank shall receive effluent from the first tank, in addition to sewage, if any.
6. The effluent end of the first septic tank shall be fitted with a filter capable of filtering animal hair. The second septic tank shall have an effluent filter or a standard effluent sanitary, tee.
7. Graveless nitrification trench systems [. 1956(3)(a)] shall not be used.
8. Approved chamber trench systems and polystyrene trench systems [15A NCAC 18A .1969 (3)], may be used. The design (equivalent) trench width and equivalency factor shall not exceed the excavated trench width (no reduction in area from comparable conventional trench system shall be permitted).
9. For low pressure pipe systems [. 1957(a)] the long-term acceptance rate shall not exceed the mean rate for the applicable soil group.
10. Operation and Maintenance procedures shall be agreed upon by the owners and made conditions of the operation permit, including:
 - a. The provisions of 15A NCAC 18A. 1961 shall be met.
 - b. Soaps, shampoos, and other cleaning agents shall be biodegradable. Synthetic pesticides and insecticides (e.g. those used in the treatment for ticks) shall not be discharged in the system.

**DESIGN CRITERIA FOR
DOG KENNELS AND/OR VET CLINICS WITHOUT X-RAY FACILITIES*
(CONTINUED)**

- c. A Material Safety Data Sheet of each chemical used at the facility shall be provided to the health department.
- d. Disinfectants shall not be used during washdown. Cages and runs may be disinfected manually without rinsing.
- e. Hoses shall be fitted with pressure spray devices to control flow and minimize water loss.
- f. Solids deposited in the runs shall be raked or otherwise prevented from entering the subsurface system.
- g. The hair filter in the first septic tank shall be cleaned weekly.

***NOTE FOR DOG KENNELS AND/OR VET CLINICS WITH X-RAY FACILITIES:**

- I. Wastewater System Plans and specifications shall be prepared by a professional engineer and approved by the On-Site Wastewater Section.
- II. All criteria for Dog Kennels and/or Vet Clinics without X-Ray facilities shall also be met.
- III. Spent fixer and developer solutions shall be handled off-site by a specialized hazardous waste hauler. No virgin or spent fixer and developer solutions shall be discharged into the subsurface system.
- IV. Rinse bath wastewater only may be discharged after treatment by a silver recovery unit. Silver recovery unit plans and specifications including treatment capacities, and predicted discharge silver concentration must be provided. Maintenance procedures shall include the replacement or replenishment of the silver recovery unit at 50 percent utilization, and the requirement to maintain a contract for unit service. Operational controls required may include periodic sampling of the effluent and of the groundwater for Total Silver concentration.