



State of Kansas

DEPARTMENT OF HEALTH AND ENVIRONMENT
Division of Environment
TOPEKA, KANSAS 66612

PUBLIC WATER SUPPLY PERMIT APPLICATION
(Modifications to an Existing Public Water Supply System)

Date: _____

To the Secretary, Department of Health and Environment, Topeka, Kansas:

In conformance with the provisions of Kansas Statutes Annotated 65-163

Name of Municipality, Institution, District, Company, Corporation or Person

hereby makes application to the Department of Health and Environment for a permit, or additional permit due to proposed change in source, storage, or treatment, to supply water for domestic purposes to the public within the State of Kansas, in accordance with the information herein contained and with the accompanying maps, plans and specifications, which are made a part of this application.

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The following questions are designed to meet the requirements of widely varying conditions. Answers are desired to all applicable questions.

GENERAL

- 1. Type of facilities to be constructed: _____
2. Give population to be served: _____

SOURCE OF SUPPLY – SURFACE-WATER SUPPLY

- 3. In case the proposed supply is to be taken from a river or creek, furnish the following information:
(a) Name of stream _____
(b) Drainage area above intake, in square miles _____
(c) Approximate minimum flow of stream _____
(d) Location of intake with reference to potential sources of pollution _____

- (e) Furnish map of general layout, together with plans of intake, suction line, dam, intake well, and all other devices to be used in taking water from the river, and specifications for their construction.
- (f) Remarks _____

4. In case the supply is to be taken from an impounding reservoir, furnish information as follows:

- (a) Area of water surface when reservoir is full, in acres _____
- (b) Maximum and average depth of water in reservoir, when full:
Maximum _____ Average _____
- (c) Approximate holding capacity of reservoir when full, in gallons _____
- (d) Name of creek tributary to reservoir, and its drainage area in acres or square miles _____
- (e) Average yearly rainfall over drainage area _____
- (f) Nature of drainage area:
smooth or rough _____ sand or clay _____
percent of tilled land _____ percent of grass land _____
percent of timbered land _____
- (g) What measures will be taken to protect the drainage and reservoir from contamination? _____
- (h) What measures are proposed for protecting the supply from excessive plant and algae growths in shallow water? _____
- (i) Furnish (1) a map of the drainage area, showing the location of all public roads and railroads; all residences, animal feedlots, and picnic or camping grounds within the limits of the area; (2) a large-scale contour map of the reservoir area; (3) plans of the dam, spillway, blow-off or drain, and intake arrangement, together with specifications for their construction.

SOURCE OF SUPPLY – GROUND-WATER SUPPLY

5. In case the proposed supply is to be taken from wells, furnish information as follows:

- (a) Number of wells available at present _____

(b) Number of wells to be constructed _____

(c) Location of well(s) to be constructed (¼ ¼ Section, TWP., R/D, County) _____

(d) Diameter and depth of each new well _____

(e) Log of the well or test holes _____

(f) Description of the aquifer from which the supply of water is to be obtained _____

(g) State type of well casing and its diameter, length, thickness and weight per foot _____

(h) State means employed to facilitate the entrance of water into the well from the aquifer. If a well screen is to be used, give length, type of material and size of openings _____

(i) Give detailed results of any preliminary tests that have been made to determine the yield of the proposed wells, or any data that might be used in estimating such yields _____

(j) Furnish large-scale map showing general layout of wells, together with plans and specifications for the construction of wells, well house, pumping equipment and appurtenances.

6. In case the proposed supply is to be derived from springs, furnish information as follows:

(a) Character and thickness of aquifer from which springs apparently flow _____

(b) Results of any measurements or tests that have been made to determine the yield of the proposed springs or any data that might be used in estimating such yield _____

(c) Furnish large-scale map showing general layout of springs, and plans and specifications for the construction of whatever collecting chambers, tunnels, weirs and conduits are to be used to collect or store the water from the springs and convey it to the point of use.

7. In case the supply is to be collected from an underground source by means of infiltration galleries, collecting pipes or tunnels, or similar devices, furnish the following information:

(a) Description and depth of aquifer from which supply is collected _____

(b) Character and thickness of each stratum of material encountered, from the surface of the ground down to the aquifer from which the water is to be obtained _____

(c) Give results of any tests that have been made to determine the probable yield of water from the proposed construction, or any data that might be used in estimating such yield _____

(d) Furnish large-scale map showing general layout of collecting system, together with plans and specifications for the construction of collecting pipes, tunnels, or galleries, and of whatever weirs, conduits and other devices may be employed.

8. Are there any cesspools, septic tanks, sanitary sewers, feedlots, underground storage tanks for petroleum products or chemicals, or other sources of pollution within 600 feet of site of proposed supply? _____

If so, specify each, or show location on a map _____

9. Are there any salt or oil wells in the vicinity that would be likely to injure the supply? _____

10. Is there to be an auxiliary supply for emergency use, as in case of large fires? _____
If so, describe source of such supply, the connection of the same with the pumping plant, and
the conditions under which it is to be used: _____

PURIFICATION

11. State briefly the treatment processes to be used _____

12. State basis of design of treatment works as to capacity _____

13. In case of aeration, give type and location of aerator _____

14. In case of preliminary sedimentation, give type, capacity, theoretical detention, overflow rate
and weir loading of basin: _____

15. In case of sedimentation with coagulation, furnish information as follows:

(a) Chemicals used _____

(b) Points of application of chemicals, and facilities for feeding, mixing and flocculating:

(c) Capacity, theoretical detention, overflow rate and weir loading of basin: _____

(d) Type of sludge disposal _____

16. In case of filtration furnish information as to the following:

(a) General type of filter _____

(b) Number and dimensions of filter units _____

(c) Type and source of filter media _____

- (d) Depth of filter media _____
- (e) Type of underdrain _____
- (f) Quantity and source of wash water _____
- (g) Filter equipment (gauges, controllers, etc.) _____
- (h) Type and capacity of clearwell _____

17. Chlorination is required. Give information on chlorination equipment:

- (a) Make, model and capacity of equipment _____

- (b) Place of application _____

18. What laboratory facilities and equipment are to be provided? _____

- (a) Make and range of chlorine residual test kit _____
- (b) Other _____

19. Are daily operation records to be maintained? _____

Specify items to be recorded _____

20. Furnish general plans of the purification plant, showing relative locations and elevations of settling basins, filters, chemical feeds, clearwell, flood protection arrangements, and other general features of the plant, indicating all pipe connections. Also, furnish detailed drawings in all cases in which these are essential to the proper understanding of the plant.

PUMPING AND DISTRIBUTION

21. Low service pumps:

- (a) Type and capacity of each in gallons per minute _____

- (b) Suction lift in feet: ordinary _____; maximum _____
- (c) Discharge head in feet _____

22. High service pumps:

- (a) Type and capacity of each in gallons per minute _____

- (b) Suction lift in feet: ordinary _____; maximum _____
- (c) Discharge head in feet _____

23. In regard to the pipe system for distributing the supply, furnish information as follows:

(a) Total length of each size of pipe/service line to be constructed:

1-inch _____ ft 4-inch _____ ft 10-inch _____ ft _____ ft

2-inch _____ ft 6-inch _____ ft 12-inch _____ ft _____ ft

3-inch _____ ft 8-inch _____ ft _____ ft _____ ft

(b) Type of pipe to be used _____

(c) Is any portion of the pipe system to be carried over a stream on a bridge, or otherwise to be exposed? _____

If so, give methods to be used to prevent freezing _____

(d) Number of fire hydrants _____

(e) Number of flushing hydrants _____

24. In case an elevated tank or standpipe is to be used, give the following information:

(a) Diameter and height, in feet _____

(b) Capacity, in gallons _____

(c) Height of top of tank or standpipe above foundation _____

(d) Height of top of tank or standpipe above area of major use _____

(e) How is tank or standpipe to be covered? _____

(f) High water level with respect to existing tanks _____

(g) Capacities of existing tanks _____

25. If a pressure tank is to be used, give size, and pressure range _____

26. In case a ground level or below ground level reservoir is to be used, give information as follows:

(a) Shape, dimensions, and capacity when full _____

(b) Height of water level, when reservoir is full, above area of major use _____

(c) Is a provision to be made to cut out the service reservoir in case of fire, and operate under direct pump pressure? _____

27. Furnish plans showing all details of the facility for which this application is made such as, source of supply, transmission main, distribution system, and water storage tanks. Also furnish specification for all equipment included in the project and for all installation procedures where applicable.

28. Give name of person or firm responsible for engineering _____

29. How and by whom is the work of construction to be supervised? _____

30. Give name of well driller: _____

AUTHORITY

31. Name, position, address, phone number and email of proper official to be contacted: _____

Signature of proper official _____

State of Kansas, County of _____, ss.

SWORN TO AND SUBSCRIBED before me, a notary public in and for said county and state, this _____ day of _____.

(SEAL) _____
Notary Public

My commission expires _____