

DESIGN MEMORANDUM NO. 12-91

TOT Chief District Engineers  
Design Engineers  
Active Consultants  
Utility Agents/Engineers

PROM: C. S. Raymer, Director  
Division of Design

Tom P. Mason, Director  
Division of Right-of-Way

DATE; October 17, 1991

SUBJECT: Utility Permit Requirements  
Sanitary Sewer Relocations  
Waterline Relocations

*C. S. Raymer*

The development of plans for a planned improvement of our highway system includes the identification of existing utilities. Those utilities, as well as planned improvements to those facilities, are coordinated with the respective owners to ensure compatibility of plans by both parties. The construction or modification of a sewage facility requires review and approval by the Division of Water as outlined in Administrative Regulation 401 KAR 5:005. The construction or expansion of waterlines and associated facilities requires similar approval as outlined in 401 KAR 8:100E. The following procedure is required when such facilities are affected by a highway project.

PERMIT PROCESS

The permit process for sanitary sewers involves the submission of plans and an application to the Construction Grants Branch in the Division of Water. A copy of their latest form dated July 5, 1990, is attached. This application form includes a checklist on the second page which outlines the required information.

The following requirements are emphasized:

- (1) Signature by owner of facility
- (2) Payment of a fee for the application unless the project is being funded by a municipality, sanitation district, or other publicly owned treatment works
- (3) Designation of the design engineer and engineer supervising construction
- (4) Certification by professional engineer after construction is complete that facility was constructed in accordance with approved plans.

No form is available for waterline permit applications nor is a fee required. The remaining requirements noted above for sewer lines apply to waterlines.

#### COORDINATION RESPONSIBILITIES

The Utilities Branch of the Division of Right-of-Way has primary responsibility for coordinating utility relocations required by highway projects. This includes the relocation of sanitary sewer lines or waterlines and associated facilities. This work should generally be completed prior to the beginning of highway construction. The permit identified above will be obtained by the owner of the sewage facility and a copy provided to Utilities Branch prior to the disposition of road funds for construction of the facility.

The relocation of sanitary sewer lines and associated facilities which must be included with the road construction plans will require additional actions. Plans for relocations developed by the owner must include the required permit from the Division of Water. This permit will be furnished by the Utilities Branch to the Division of Design to be included in the proposal as proof of compliance with the Administrative Regulation. This action must be closely coordinated since the engineer supervising construction must be noted in the application. It is recommended that the form be completed by designating the District Construction office for a project where the Resident Engineer has not been designated for that project. The Construction office can provide the appropriate name after the project has been awarded.

Relocation of privately-owned sewer facilities or possibly minor adjustments of municipally-owned facilities may be developed by the Designer and appropriate details included in the road plans. The relocation of waterlines may also be developed by the designer. The designer then is responsible for obtaining the required permits. This includes both in-house design as well as design by consultants. Payment of the fee for sanitary sewers will be handled by inter-account. This includes those permits obtained by consultants on highway projects. The letter accompanying the permit application and plans should indicate the fee will be paid by the Division of Design through inter-account. A copy of this permit will be included in the proposal.

#### PLAN APPROVAL

An engineer's stamp and signature is required by the permit process. The Division of Water has agreed to accept our signed layout sheet as satisfactory completion of this requirement when the relocation is designed as part of the project and included in the road construction plans.

Certification of construction for relocations included in the road construction plans must be performed by the Division of Construction. A letter advising the Division of Water that construction was completed in

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accordance with approved plans must be transmitted after the work is completed. This letter should complete the permit process and eliminate further coordination of this work.

This memo becomes void when the contents are placed in the appropriate guidance manual. Any comments or questions concerning this guidance should be directed to John Sacksteder in the Division of Design or Don Werner in the Division of Right-of-Way.

CSR:lk

Attachments

Carl H. Bradley  
Secretary



Wallace G. Wilkinson  
Governor

Commonwealth of Kentucky  
**Natural Resources and Environmental Protection Cabinet**  
**Department for Environmental protection**  
Frankfort Office Park  
18 Reilly Road  
Frankfort, Kentucky 40601

**CONSTRUCTION GRANTS BRANCH**  
**SEWER LINE APPLICATION FORM**  
(Construction, Modification Replacement of Devices  
Used to Collect, Pump, or Transport Sewage)

Project: \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_

Owner of facilities being constructed:

Name: \_\_\_\_\_ Address: \_\_\_\_\_

\_\_\_\_\_ Owner's Signature: \_\_\_\_\_

Is project being funded by a municipality, sanitation district or other publicly owned treatment works? Yes\_ No\_ (If yes, fee does not apply)

**Fee Determination As Per 401 KAR 5:005:**

Small Facility (pump station or sewer line less than 2,500 feet)	\$200
Intermediate Facility (sewer line 2,500 - 5,000 feet)	\$400
Large Facility (sewer line 5,000 feet or more)	\$800

Total fee submitted: \_\_\_\_\_ (make check payable to Kentucky State Treasurer)

**FOR OFFICE USE ONLY**

Date Plans Received: \_\_\_\_\_ KPDES No.: \_\_\_\_\_

No. Received: \_\_\_\_\_ Plans \_\_\_\_\_ Specifications \_\_\_\_\_

Other Material: \_\_\_\_\_

Reviewing Engineer \_\_\_\_\_ Date Payment Received: \_\_\_\_\_

Comments: \_\_\_\_\_ Amount Received;\_ \_\_\_\_\_

\_\_\_\_\_ Received By:\_\_\_\_\_

## CHECKLIST FOR PLAN SUBMITTAL

(to be completed by applicant)

- \_\_\_\_\_ Not less than 3 sets of detailed plans and specifications
  
- \_\_\_\_\_ Complies with "Recommended Standards for Sewage Works", 1978 addition (Ten State Standards)
  
- \_\_\_\_\_ Plans were prepared, stamped, signed and dated by a professional engineer (if the facility is part of or may become a part of a comprehensive sewer system and has a projected capacity of 50,000 gpd or more).
  
- \_\_\_\_\_ Vicinity Map.
  
- \_\_\_\_\_ Plans are accompanied by engineering calculations and flow information, including pump performance curves. \_\_\_\_\_ GPD additional plant loading,
  
- \_\_\_\_\_ Letter of approval from owner of treatment plant.
  
- \_\_\_\_\_ Letter from owner stating who will own, operate, and maintain the system when installed.
  
- \_\_\_\_\_ Professional engineer will be retained during construction to certify that facilities were constructed in accordance with approved plans,

Design Engineer

Engineer Supervising Construction

(Name) \_\_\_\_\_

\_\_\_\_\_

(Address) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(Phone) \_\_\_\_\_

\_\_\_\_\_

WBG:pam

7/5/90

WATER QUALITY - TITLE 401, CHAPTER 5

CHAPTER 5

WATER QUALITY

- 005. Permits to discharge sewage; industrial and other wastes; definitions.
- 010. Certification of wastewater system operators.
- 015. Spills and bypasses to be reported to division.
- 026. Classification of waters.
- 029. General provisions.
- 031. Surface water standards.
- 035. Treatment requirements; compliance.
- 040. Treatment requirements, coal mining operations.
- 045. Biochemically degradable wastes; treatment.
- 050. Definitions and general provisions; KPOES permitting program.
- 055. Scope and applicability of KPOES program.
- 060. KPDES application requirements.
- 065. KPDES permit conditions.
- 070. Provisions of the KPOES permit.
- 075. Cabinet review procedures for KPOES permits.
- 080. Criteria and standards for KPOES.
- 090. Control of water pollution from oil and gas facilities.
- 200. Documents incorporated by reference for water quality and wastewater treatment.

401 KAR 5:005. Permits to discharge sewage; industrial and other wastes; definitions.

RELATES TO: KRS 224.020, 224.033, 224.060

STATUTORY AUTHORITY: KRS 224.033, 224.045

NECESSITY AND FUNCTION: This regulation provides definitions and administrative procedures authorized for the issuance of permits for the construction and operation of sewage systems authorized under KRS Chapter 224. The regulation also establishes a schedule of fees to recover the costs of issuance for certain classes of permits.

Section 1. Definitions. (1) "Agricultural wastes-handling system" means a no-discharge structure or equipment that conveys, stores, or treats manure from a concentrated animal feeding operation prior to land application.

(2) "Cabinet." means the Natural Resources and Environmental Protection Cabinet.

(3) "Division" means the Division of Water.

(4) "Establishment" means any industrial plant, mill, factory, tannery, paper or pulp mill, mine or mineral processing or producing facility, quarry, oil refinery, boat, vessel or other type of commercial, manufacturing or industrial works or facility in the operation of which sewage, industrial wastes or other wastes are produced or stored.

(5) "Facility" for the purpose of this regulation means a sewage system as defined in KRS 224.005 except for septic tanks, pretreatment facilities, and disposal wells as defined in 401 KAR 5:090.

(6) "Industrial wastes" means any liquid, or other waste resulting from any process of industry, manufacture, trade or business, or from the depletion of any natural resource.

(7) "Intermediate facility" means a treatment facility with an average daily design flow of 10,000 to 49,999 gallons per day or of sewer lines of more than 2.500 feet to 5,000 feet in length including appurtenances.

(8) "Large facility" means a treatment facility with an average daily design flow of

50,000 gallons per day or more or of sewer lines of more than 5,000 feet in length including appurtenances.

(9) "Other wastes" means sawdust, bark or other wood debris, garbage, refuse, ashes, offal, tar, oil, chemicals, acid drainage, wastes from agricultural enterprises, and all other foreign substances not included within the above definitions of industrial wastes and sewage which may cause or contribute to the pollution of any waters of the Commonwealth.

(10) "Permit" means written permission in whatever form by the cabinet to construct and operate a facility.

(11) "Professional engineer" or "engineer" means a person registered to practice engineering pursuant to KRS Chapter 322.

(12) "Publicly owned treatment works" for the purpose of this regulation means treatment facilities eligible for funding under United States Environmental Protection Agency's 20S(g) (33 U.S.C. Section 1285(g)) Construction Grants program as provided in 40 CFR Parts 30, 33, and 35.

(13) "Sewage" means the water-carried human or animal wastes from residences, buildings, industrial establishments or other places together with such industrial wastes, underground, surface, storm or other water, as may be present.

(14) "Sewer line" means those devices used for collecting, pumping, and disposing of sewage, but not those devices used for tap-ons by individual discharges.

(15) "Small facility" means a treatment facility with an average daily design flow less than 10,000 gallons per day or a sewer line of less than 2.500 feet in length including appurtenances.

Section 2. Applicability. No person shall construct, modify or operate a facility without having received a permit from the cabinet. However, the cabinet may exempt from this administrative regulation any facility which it determines will not at any time discharge into waters of the Commonwealth. In addition, the operational permit provisions of this administrative regulation will be deemed met by those facilities which have a valid KPDCS permit as defined in 401 KAR 5:050.

Section 3. The Permit. (1) A permit to construct a facility shall be effective upon issuance unless otherwise conditioned. If construction is not commenced within the twelve (12) months following a permit's issuance, a new permit shall be obtained prior to any construction.

(2) A permit to construct a facility shall automatically become an operational permit when:

(a) The applicant notifies the cabinet that the facility has been properly constructed; and,

(b) A cabinet representative inspects the site and determines that the facility is properly operating.

(3) The applicant shall notify the cabinet in writing within thirty (30) days of completed construction and commencement of trial operation.

(4) Permits may contain special conditions not found in this regulation. Such conditions shall be in writing and treated as a part of a permit.

(5) Issuance of a permit represents a judgment of the cabinet that a proposed facility will protect water quality or achieve certain

## WATER QUALITY – TITLE 401, CHAPTER 5

effluent reductions if constructed in accordance with approved plans and specifications. Construction shall be in accord with approved plans and specifications.

Section 4. Permit Application. An application for a permit shall be submitted not less than thirty (30) days prior to the date a permit is desired.

Section. 5. The Application: Preliminary Considerations. (1) Where a river basin plan, an Area wide waste management plan and an area wide waste management plan have been developed with a regional or facility plan, the applicant shall provide the cabinet with a statement from the agency developing any such plan, that the applicant's proposed facility is compatible with any applicable plan.

(2) Any proposed large facility shall submit preliminary or facilities plan to the cabinet. Said plan shall include;

(a) A seven and one-half (7 1/2) minute, United States Geological Survey topographic map with the projected service area outlined and the discharge point identified thereon.

(b) A schematic of the facility layout and detailed explanation of the proposed facility and its method of operation;

(c) All wastes shall be identified in regard to the processes giving rise to the waste, the character and quantity of the waste, its treatability; and

(d) A statement regarding the expected degree of reduction in pollution load to be accomplished-by the facility.

(3) Where the discharge point of a proposed facility fails to coincide with-an intermittent or perennial stream as indicated by a blue line on U.S. Geological Survey topographic maps, the applicant shall demonstrate that he has a legal right to discharge his effluent across any other land owner's property which cones between the point of discharge and a blue line stream. The cabinet may require the applicant to provide H with an opinion of counsel to that effect.

Section 6. Plans and Specifications. (1) Not fewer than three (3) sets of detailed plans and specifications shall be submitted to the cabinet. The submittal shall be accompanied by a completed permit application form provided by the cabinet.

(2) The cabinet may request such additional information as it needs to evaluate the facility.

(3) Once cabinet approval is obtained, no changes shall be made to the plans and specifications which would alter or affect the location, type of process or quality of effluent without prior written approval from the cabinet.

(4) Where a proposed or existing facility is part of or may become a part of a comprehensive sewer system and has a projected capacity of 50,000 gallons per day or more, the plans and specifications shall be prepared by a professional engineer. The plans shall be accompanied by such engineering calculations as are necessary for the understanding of the basis and-design of the facility.

Section 7. Design Considerations. (1) Specific design criteria for any facility shall be controlled by current engineering practice. Some references to current engineering practice can be found in the following: "Sidelines for

Design, Operation and Maintenance of Waste Water Treatment" by the United States Environmental Protection Agency; - the latest edition of "Recommended Standards for Sewage Works of the Great Lake-Upper Mississippi River Board of Sanitary Engineers," and the Water Pollution Control federation's "Manual of Practice No. 8 and 9."

(2) Consideration shall be given to the treatment requirements of the United States Environmental Protection Agency for specific types-of facilities and -processes.

(3) The applicant shall demonstrate to the cabinet that the effluent from a proposed facility will:

(a) Protect those minimum conditions applicable to all waters of the Commonwealth found in 401 KAR 5:031, Section 2;

(b) Not cause- those waters classified by 401 KAR 5:03S to be of lesser quality than the numeric criteria applicable to those waters in 401 KAR 5:031. Sections 3 to 9; and

(c) Be in accord with any general or particular facility requirement mandated by other regulations. An example of a general facility requirement is the "best practicable control technology" found in 401 KAR 5:080.

(4) A recording flow-measuring device shall be installed at each large facility. Any facility may estimate flow from a measuring device at the plant.

(5) Infiltration/exfiltration.

(a) The entrance of ground -water into or loss of waste from a-sewer system shall be limited to 250 gallons per inch of diameter per-mile per Day With a maximum of 6,000 gallons per mile per Day regardless of the -pipe diameter. This Limitation is inclusive of manholes, sewers and appertenances.

(b) The integrity of a new system shall be verified by means of either smoke testing, or low pressure air testing or both testing methods. The use of smoke testing shall depend on prevailing ground water conditions during testing. Sewers over eighteen (16) inches in diameter shall be tested by the exfiltration method, or smoke testing, or both, if ground water conditions permit.

(6) Inflow. No new combined, extension or replacement of combined sewers shall be permitted. All points of entrance of inflow to a separate sanitary system will be identified and eliminated..

Section 8. Application; Other Supporting Documents. (1) The applicant shall demonstrate that provision has been made for continuous inspection of a facility under construction to assure its conformity with approved plans and specifications. Those facilities designed by an engineer shall be inspected by an engineer.

(2) The applicant shall demonstrate that laboratory services shall be provided for self-monitoring to assure facility operation in accord with any permit conditions and to substantiate protection of the receiving waters.

(3) Where a proposed facility will serve multiple users, the applicant shall demonstrate the "financial ability to guarantee continuous operation and maintenance to the cabinet's satisfaction. Such guarantee may take the form of supporting promise by another person to operate the facility if the applicant fails to properly do so, or by posting a bond payable or depositing money in escrow to be available for

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making necessary repairs only upon the cabinet's determination that the facility's operation and maintenance is not achieving permit conditions. The above requirement can be demonstrated by a certification from the Public Service Commission.

Section 9. Operation. (1) The cabinet's permit may specify the type of analysis required for a facility and the frequency that such analysis shall be performed and reported to the cabinet. (2) The cabinet may provide forms for self-monitoring reports.

Section 10. Fees. (1) The applicant shall submit a permit fee as provided in subsection (5) of this section with the construction permit application.

(2) If the cabinet denies a construction permit, the fee for the construction permit shall be refunded.

(3) Checks or money orders shall be made payable to the Kentucky State Treasurer.

(4) Construction permit fees shall be as shown on the following schedule:

Facility Category	Construction Permit Fee
Large facility	\$1,800
Intermediate Facility	\$ 900
Snail Facility	\$ 450
Large Facility: Sewer Lines	\$ 800
Intermediate Facility: Sewer Lines	\$ 400
Snail Facility: Sewer Lines	\$ 200

(5) If the cabinet has delegated to a local or regional agency, through formal written agreement, review responsibility for sewer lines, a twenty (20) dollar fee per approval letter will be charged in lieu of the sewer line fees described in subsection (4) of this section.

(6) Fees in this section do not apply to publicly owned treatment works or agricultural wastes handling systems designed by the U.S. Soil Conservation Service (SCS) in accordance with the cabinet's May 15, 1980 memorandum of understanding with SCS, incorporated herein by reference.

(7) This section shall apply to permit applications submitted on or after the effective date of this administrative regulation and to applications which are not completed by the effective date of this administrative regulation. Permit applications which are completed by the effective date of this administrative regulation shall be subject to this section as in effect on October 26, 1988. (WP-1; 1 Ky.R. 760; Am. 1381; eff. 7-2-75; Am. 12 Ky.R. 504; eff. 12-10-85; 15 Ky.R. 282; 1005; 1257; eff. 10-26-88 (16 Ky.R. 599; 1191; eff. 1-9-90.)

**401 MR 5:010. Certification of wastewater system operators.**

RELATES TO: KRS 224.032, 224.135

STATUTORY AUTHORITY: KRS 224.032, 224.033, 224.045

NECESSITY AND FUNCTION: The secretary is directed to adopt regulations applicable to certification of wastewater system operators. This regulation establishes standards for classification of wastewater systems; qualifications of applicants; examination

procedures; duties of the board; provisions relating to the issuance, renewal or revocation of certificates, fee schedule and other provisions necessary for certification of operators; and other operational provisions related to the functions of the wastewater operators certification board.

Section 1. Definitions. The following terms shall have the meanings set forth below unless the context clearly indicates otherwise:

(1) "Board" means the Kentucky Board of Certification of Wastewater System Operators.

(2) "Cabinet" means the Kentucky Natural Resources and Environmental Protection Cabinet.

(3) "Secretary" means the secretary of the cabinet.

(4) "Certificate" means a certificate of competency issued by the secretary stating that the operator has met all requirements for the specified operator classification as set by this regulation.

(5) "Division" means the Division of Water, Natural Resources and Environmental Protection Cabinet.

(6) "Operator" means the person having primary responsibility of a wastewater system or any portion thereof which may affect the performance of the system.

(7) "Primary responsibility" means having the authority to conduct or supervise the procedures and practices necessary to insure that the wastewater system or any portion thereof is operated in accordance with accepted practices, laws and administrative regulations of the Commonwealth.

(8) "Wastewater system" means the system of pipes, structures, equipment and processes required to collect, carry, and treat domestic, or industrial wastewater, or both, including solids handling. The term "wastewater system" is synonymous and interchangeable with the term "sewage system."

(9) "Association of Boards of Certification for Operating Personnel in Water and Wastewater Utilities (ABC)" means that organization which serves as an information center for certification activities, recommends minimum standards and guidelines for classification of water supply and wastewater systems and state programs, and assists authorities in establishing new certification programs and upgrading existing ones.

Section 2. General Provisions. (1) Each wastewater system shall be operated under the supervision of an individual holding a current Kentucky operator's certificate for at least the class of system he or she supervises. Certified operators are required for the operation of all wastewater treatment facilities.

(2) If the operator with primary responsibility is not physically present while a system is operating, he or she shall be reasonably available. Such availability shall be determined by the board on a case-by-case basis.

Section 3. Duties of the Board. (l) in carrying out its responsibilities the board shall among other things:

(f) Examine the qualifications of applicants for certification.

(b) Recommend qualified applicants for certification by the cabinet.

(c) Review and provide comments to the cabinet



## PUBLIC WATER SUPPLY - TITLE 401, CHAPTER 8

fluorosis. Dental fluorosis, in its moderate and severe forms, is a brown staining and/or pitting of the permanent teeth.

Because dental fluorosis occurs only when developing teeth (before they erupt from the gums) are exposed to elevated fluoride levels, households without children are not expected to be affected by this level of fluoride. Families with children under the age of nine (9) are encouraged to seek other sources of drinking water for their children to avoid the possibility of staining and pitting. Your water supplier can lower the concentration of fluoride in your water so that you will still receive the benefits of cavity prevention while the possibility of stained and pitted teeth is minimized. Removal of fluoride may increase your water costs. Treatment systems are also commercially available for home use. Information on such systems is available at the address given below. Low fluoride bottled drinking water that would meet all standards is also commercially available. For further information contact Public Water Supply shall insert the name, address and telephone number of a contact person) at your water system.

Section 7. Severability. If any provision of this regulation is set aside by a court of competent jurisdiction, the remainder of this regulation remains in effect. (17 Ky.R.; eff. 17-19-90.)

### **401 KAR 8:100E. Design, construction and approval of new or modified facilities.**

REUTES TO; KRS Chapter 224; 40 CFR Part 141

STATUTORY AUTHORITY: KRS 224.032, 224.033.

Public Law 93-523, The Safe Drinking Water Act, as amended in 1986 and by the Lead Contamination and Control Act of 1988, Public Law 100-572, 42 U.S.C.A. 300f, 300g, 300j

EFFECTIVE: July 19, 1990

NECESSITY AND FUNCTION: KRS 224.032 directs

the cabinet to enforce rules and regulations adopted by the secretary for the regulation and control of the purification of water for public and semipublic use. The Safe Drinking Water Act, as amended by the Safe Drinking Water Act Amendments of 1986, provides for primary enforcement responsibility by states that have adopted regulations "no less stringent than the national primary drinking water regulations", as well as meeting other criteria stipulated by the Act. The Commonwealth of Kentucky has accepted and is currently exercising such primary enforcement responsibility. This regulation sets out design plan requirements for the construction of new and expanded facilities that deliver pure water for public or semi public use. This regulation will repeal Section 3 of 401 KAR 6:015 and contains minor revisions.

Section I. Plans and Specifications. (1) Plans to be submitted. Before a supplier or potential supplier of water may enter into a financial commitment for or initiate construction of a new public water system, or increase the capacity of an existing public water system, he shall submit the preliminary plans to the cabinet. An applicant shall demonstrate to the cabinet evidence of efforts to avoid locating part or all of the new or expanded facility at a site which is subject to a significant risk from

earthquakes, floods, fires or other disasters which could cause a breakdown of the public water system or a portion thereof. Except for the intake structure, the facility shall be out of the 100-year flood plain.

(2) Preliminary information. The following information shall be submitted to the cabinet by a professional engineer on behalf of the applicant along with the fee required by 401 KAR 8:050 Section 1(1);

(a) The names of the applicant and the owner of the plant;

(b) A United States Geological Survey quadrangle map which shows the location of the proposed facility;

(c) The proposed source of water and quantity available, with the location of the intake or wellhead identified by latitude and longitude in degrees, minutes and seconds;

(d) An analysis of the water from the proposed source, which covers all regulated parameters, performed by a laboratory certified by the cabinet or its authorized agent;

(e) A description of the proposed facility, including size, flow rate through filters, settling basin size, and other general criteria; and

(f) An operation plan, including anticipated load, hours of operation, area served and the name of the plant operator.

(3) Preliminary plans approval. Upon receipt and review of the preliminary plans, as set forth in subsection (1) of this section, the cabinet will either approve the preliminary plans or return them to the supplier of water for revision. Approval of the preliminary plans signifies approval only if the concept described in the preliminary plans and does not alter in any way the responsibility of the supplier of water to submit complete plans and specifications to the cabinet for final approval. The facility shall comply with the approved preliminary plans. Any change in the final design from the concept set forth in the preliminary plans shall be approved prior to its incorporation in the final plans and Specifications.

(4) Preliminary plans for semipublic treatment facilities or distribution systems. Preliminary plans are not required by the cabinet for semipublic treatment facilities or for distribution system construction, extensions or improvements.

(5) Final plans and specifications for water treatment plants and distribution facilities.

(a) Plans for the construction or modification of public water systems shall be submitted by the water system or shall be accompanied by a letter from the water system confirming that it has reviewed the plans, accepts the design and can and will provide water service to the project.

(b) Plans and specifications for all public water systems shall be prepared and submitted to the cabinet by a professional engineer registered in Kentucky, and shall bear his seal. The seal of a professional engineer is not required on plans and specifications for semipublic water supplies, for public water system projects for repair or maintenance of an existing system that cost less than \$2,000, or for public water systems projects for the construction, repair or maintenance of a new facility that cost less than \$25,000. The construction or installation of any new

## PUBLIC WATER SUPPLY - TITLE 401, CHAPTER 8

facilities or works or the alteration or reconstruction of any existing facilities or works, in any public or semipublic water system, shall not begin until four (4) copies of the plans and specifications, or any changes thereto, together with design data as may be required for proper review of the plans, have been submitted to the cabinet and have been approved by the cabinet in writing. A complete package, including plans, specifications, necessary fees, letters and other information, shall be submitted in such form and content as may be specified by the cabinet, and shall be submitted at least thirty (30) days prior to the date on which action is requested of the cabinet. The front page of the plans shall contain the name of the water supply, its ownership, location by city and county, and the name of the person preparing the plans.

(c) The cabinet's review of plans is limited to sanitary features of design and other features of public health significance and does not include an examination of structural, mechanical or electrical design or economic factors.

(d) The plans shall be drawn to scale and accompanied by proper specifications, so as to permit a comprehensive engineering review, and shall include, but not be limited to, the following:

1. If treatment facilities are involved, chemical analyses of the proposed raw water source or sources shall be performed and evaluated before final approval is granted;

2. A plan and sectional view with all necessary dimensions of the water treatment facilities;

3. A piping diagram showing all appurtenances, including treatment facilities, in sufficient detail, as well as pertinent elevation data, to permit a hydraulic analysis of the system; and

4. Specifications containing details on all treatment equipment, including catalog identification of pumps, chlorinators, chemical feeders and related equipment.

(6) Approval of final plans. If approved, one (1) set of plans and specifications stamped "approved" will be returned to the engineer or person who prepared them and one set will be returned to the water supply.

(7) Construction.

(a) During construction, a set of approved plans and specifications shall be available at the job site at all times. All work shall be performed in accordance with the approved plans and specifications.

(b) If the cabinet's representative observes work being performed in a manner which does not conform to the approved plans and specifications, the cabinet will notify the owner in writing of any noncompliance.

(8) Final approval of facility. Upon completion of construction, the person who presented the plans shall certify in writing that the project has been completed in accordance with the "approved" plans and specifications. The public water supply shall operate the facility consistent with the approved plans and specifications.

(9) Expiration of approval. Unless construction is begun within one (1) year from date of approval, the approval shall expire. Extension of approval may be granted upon written request to the cabinet.

Section 2. The following documents are hereby incorporated by reference and are available for public inspection and copying between 8:00 a.m. and 4:30 p.m., Monday through Friday, at the Division of Water)8 Reilly Road, Frankfort Office Park, Frankfort, Kentucky 40601:

(1) Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers "Recommended Standards for Water Works," 1987, published by and available from Health Research Inc., Health Education Services Division, P.O. Box 7126, Albany, New York 12224.

(2) "General Design Criteria for Surface and Ground Water Supplies" which is published by and may be obtained from the Division of Water; and

(3) "Water Policy Memorandum number 84-02, General Guidelines for Conducting Stream Studies for Wastewater Discharges Proposed within Five Miles Upstream from Public Water Supply Sources, or for the Location of Public Water Supply Intakes within Five Miles Downstream from Wastewater Discharges", which is published by and may be obtained from the Division of Water.

Section 3. Severability. If any provision of this regulation is set aside by a court of competent jurisdiction, the remainder of this regulation remains in effect. (17 Ky.R.; eff. 7-19-90.)

### 401 KAR 8:150E. Disinfection and filtration.

RELATES TO: KRS Chapter 224, 40 C.F.R. Parts 141, 142

STATUTORY AUTHORITY: KRS 224.032, 224.033, Public Law 93-523, The Safe Drinking Water Act as amended in 1986 and by the Lead Contamination and Control Act of 1988, Public Law 100-572. 42 U.S.C.A. 300, 300f, 300g, 300j

EFFECTIVE: July 19, 1990

NECESSITY AND FUNCTION: KRS 224.032 directs the cabinet to enforce rules and regulations adopted by the secretary for the regulation and control of the purification of water for public and semipublic use. The Safe Drinking Water Act, as amended by the Safe Drinking Water Act Amendments of 1986, provides for primary enforcement responsibility by states that have adopted regulations "no less stringent than the national primary drinking water regulations", as well as meeting other criteria stipulated by the Act. The Commonwealth of Kentucky has accepted and is currently exercising such primary enforcement responsibility. This regulation sets out requirements for the disinfection and filtration of drinking water. It is anticipated that this regulation will be amended or replaced in the near future as a result of the Surface Water Treatment rule or the Total Coliform rule published in the Federal Register June 29, 1989. This regulation repeals Section 2 (9) and (10) of 401 KAR 6:015 and contains minor revisions.

Section 1. Disinfection. (1) Obligation to disinfect. All public and semipublic water supplies shall provide disinfection. Supplies which use chlorine shall use a continuous automatic disinfection by chlorination and shall provide a minimum free chlorine residual of two-tenths (0.2) milligrams per liter (or ppm) at all points throughout the distribution system. A contact period of at least thirty (30) minutes shall be provided between the chlorine and the water- to allow adequate time for