

TITLE 18

WATER AND SEWERS¹

CHAPTER

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CHAPTER 1

WATER AND SEWERS

SECTION

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18-101. Board of waterworks and sewerage commissioners. The custody, administration, operation, maintenance and control of the waterworks and sewerage systems of the City of South Pittsburg are hereby placed in a board of waterworks and sewerage commissioners appointed by the board of mayor and commissioners.²

The first board shall be appointed so that the term of one member shall expire on June 30th in each odd numbered year thereafter. (1994 Code, § 18-101)

18-102. Fluoridation of water. The board of waterworks and sewerage commissioners is authorized and instructed to make plans for the fluoridation

¹Municipal code references

Building, utility and housing codes: title 12.

Refuse disposal: title 17.

²Provisions relating to qualifications, terms, oaths, removal, etc., of members of the board of waterworks and sewerage commissioners and a description of the board's powers and duties are presently codified in Tennessee Code Annotated, §§ 7-35-401 through 7-35-432.

The board originally consisted of three members. The three original members of the board, R. T. Phillips, Scott Patton, and J. T. Ferguson, were appointed to serve until July 1, 1943; July 1, 1945; and July 1, 1947, respectively.

of the water supply of the city; to submit such plans to the state health department for approval; and, upon approval, to add such chemicals as fluoride to the water supply in accordance with such approval as will adequately provide for the fluoridation of said water supply.

The cost of such fluoridation will be borne by the revenues of the water system. (1994 Code, § 18-102)

18-103. Water and sewer rates and charges. All water and sewer services furnished by the city shall be furnished under such rate schedules and shall be subject to such charges as the board of mayor and commissioners may from time to time prescribe. (1994 Code, § 18-103)

CHAPTER 2

WASTEWATER REGULATIONS

SECTION

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18-201. Purpose and policy. This chapter sets forth uniform requirements for the disposal of wastewater in the service area of the City of South Pittsburg, Tennessee, wastewater treatment system. The objectives of this chapter are:

- (1) To protect the public health;
- (2) To provide problem free wastewater collection and treatment service;
- (3) To prevent the introduction of pollutants into the municipal wastewater treatment system, which will interfere with the system operation, which will cause the city's discharge to violate its National Pollutant Discharge Elimination System (NPDES) permit or other applicable state requirements will cause physical damage to the wastewater treatment system facilities;

(4) To provide for full and equitable distribution of the cost of the wastewater treatment system;

(5) To enable the City of South Pittsburg to comply with the provisions of the Federal Clean Water Act, the General Pretreatment Regulations (40 CFR Part 403), and other applicable federal and state laws and regulations;

(6) To improve the opportunity to recycle and reclaim wastewaters and sludges from the wastewater treatment system.

In meeting these objectives, this chapter provides that all persons in the service area of the City of South Pittsburg must have adequate wastewater treatment either in the form of a connection to the municipal wastewater treatment system or, where the system is not available, an appropriate private disposal system. The chapter also provides for the issuance of permits to system users, for the regulations of wastewater discharge volume and characteristics, for monitoring and enforcement activities; and for the setting of fees for the full and equitable distribution of costs resulting from the operation, maintenance, and capital recovery of the wastewater treatment system and from other activities required by the enforcement and administrative program established herein.

This chapter shall apply to the City of South Pittsburg, Tennessee and to persons outside the city who are, by contract or agreement with the city, users of the municipal wastewater treatment system. Except as otherwise provided herein, the Water and Sewer Superintendent of the City of South Pittsburg shall administer, implement, and enforce the provisions of this chapter. (1994 Code, § 18-201)

18-202. Definitions. Unless the context specifically indicates otherwise, the following terms and phrases, as used in this chapter, shall have the meanings hereinafter designated:

(1) "Act or the Act." The Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C. 1251, et seq.

(2) "Approval authority." The director in an NPDES state with an approved State Pretreatment Program and the Administrator of the EPA in a non-NPDES state or NPDES state without an Approved State Pretreatment Program.

(3) "Authorized representative of industrial user." An authorized representative of an industrial user may be:

(a) a principal executive officer of at least the level of vice-president, if the industrial user is a corporation;

(b) a general partner or proprietor if the industrial user is a partnership or proprietorship, respectively;

(c) a duly authorized representative of the individual designated above if such representative is responsible for the overall operation of the facilities from which the indirect discharge originates.

(4) "Biochemical oxygen demand (BOD)." The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure, five (5) days at 20° centigrade expressed in terms of weight and concentration (milligrams per liter (mg/l)).

(5) "Building sewer." A sewer conveying wastewater from the premises of a user to the POTW.

(6) "Categorical standards." The National Categorical Pretreatment Standards or Pretreatment Standard.

(7) "City." The City of South Pittsburg or the Board of Mayor and Commissioners, City of South Pittsburg, Tennessee.

(8) "Compatible pollutant." BOD, suspended solids, Ph, fecal coliform bacteria, and such additional pollutants as are now or may in the future be specified and controlled in the city's NPDES permit for its wastewater treatment works where sewer works have been designed and used to reduce or remove such pollutants.

(9) "Cooling water." The water discharge from any use such as air conditioning, cooling or refrigeration, or to which the only pollutant added is heat.

(10) "Control authority." The term "control authority" shall refer to the "approval authority," defined hereinabove; or the superintendent if the city has an approved pretreatment program under the provisions of 40 CFR, 403.11.

(11) "Customer." Any individual, partnership, corporation, association, or group who receives sewer service from the city under either an express or implied contract requiring payment to the city for such service.

(12) "Direct discharge." The discharge of treated or untreated wastewater directly to the waters of the State of Tennessee.

(13) "Domestic wastewater." Wastewater that is generated by a single family, apartment or other dwelling unit or dwelling unit equivalent containing sanitary facilities for the disposal of wastewater and used for residential or commercial purposes only.

(14) "Environmental Protection Agency, or EPA." The U. S. Environmental Protection Agency, or where appropriate, the term may also be used as a designation for the administrator or other duly authorized official of the said agency.

(15) "Garbage." Solid wastes from the domestic and commercial preparation, cooking, and dispensing of food, and from the handling, storage, and sale of produce.

(16) "Grab sample." A sample which is taken from a waste stream on a one-time basis with no regard to the flow in the waste stream and without consideration of time.

(17) "Holding tank waste." Any waste from holding tanks such as vessels, chemical toilets, campers, trailers, septic tanks, and vacuum-pump tank trucks.

(18) "Incompatible pollutant." Any pollutant which is not a "compatible pollutant" as defined in this section.

(19) "Indirect discharge." The discharge or the introduction of non-domestic pollutants from any source regulated under Section 307(b) or (c) of the Act, (33 U.S.C. 1317), into the POTW (including holding tank waste discharged into the system).

(20) "Industrial user." A source of indirect discharge which does not constitute a "discharge of pollutants" under regulations issued pursuant to Section 402 of the Act (33 U.S.C. 1342).

(21) "Interference." The inhibition or disruption of the municipal wastewater processes or operations which contributes to a violation of any requirement of the city's NPDES permit. The term includes prevention of sewage sludge use or disposal by the POTW in accordance with 405 of the Act, (33 U.S.C. 1345) or any criteria, guidelines, or regulations developed pursuant to the Solid Waste Disposal Act (SWDA), the Clean Air Act, the Toxic Substances Control Act, or more stringent state criteria (including those contained in any state sludge management plan prepared pursuant to Title IV of SWDA) applicable to the method of disposal or use employed by the municipal wastewater treatment system.

(22) "National categorical pretreatment standard or pretreatment standard." Any regulation containing pollutant discharge limits promulgated by the EPA in accordance with Section 307(b) and (c) of the Act (33 U.S.C. 1347) which applies to a specific category of industrial users.

(23) "NPDES (National Pollution Discharge Elimination System)." The program for issuing, conditioning, and denying permits for the discharge of pollutants from point sources into navigable waters, the contiguous zone, and the oceans pursuant to Section 402 of the Federal Water Pollution Control Act as amended.

(24) "New source." Any source, the construction of which is commenced after the publication of proposed regulations prescribing a Section 307(c) (33 U.S.C. 1317) categorical pretreatment standard which will be applicable to such source, if such standard if thereafter promulgated within 120 days of proposal in the federal register. Where the standard is promulgated later than 120 days after proposal, a new source means any source, the construction of which is commenced after the date of promulgation of the standard.

(25) "Person." Any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity or any other legal entity, or their legal representatives, agents or assigns. The masculine gender shall include the feminine, the singular shall include the plural where indicated by the context.

(26) "Ph." The logarithm (base 10) of the reciprocal of the concentration of hydrogen ions expressed in grams per liter of solution.

(27) "Pollution." The man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water.

(28) "Pollutant." Any dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical substances, biological materials, radioactive materials, heat, wrecked or discharged equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water.

(29) "Pretreatment or treatment." The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater to a less harmful state prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW. The reduction or alteration can be obtained by physical, chemical, biological processes, or process changes or other means, except as prohibited by 40 CFR Section 40.36(d).

(30) "Pretreatment requirements." Any substantive or procedural requirement related to pretreatment, other than a national pretreatment standard imposed on an industrial user.

(31) "Publicly owned treatment works (POTW)." A treatment works as defined by Section 212 of the Act, (33 U.S.C. 1292) which is owned in this instance by the city. This definition includes any sewers that convey wastewater to the POTW treatment plant, but does not include pipes, sewers or other conveyances not connected to a facility providing treatment. For the purposes of this chapter, "POTW" shall also include any sewers that convey wastewaters to the POTW from persons outside the city who are, by contract or agreement with the city, users of the city's POTW.

(32) "POTW treatment plant." That portion of the POTW designed to provide treatment to wastewater.

(33) "Shall" is mandatory; "May" is permissive.

(34) "Slug." Any discharge of water, sewage, or industrial waste which in concentration of any given constituent or in quantity of flow exceeds for any period of duration longer than fifteen (15) minutes more than five (5) times the average twenty-four (24) hour concentrations of flows during normal operation or any discharge of whatever duration that causes the sewer to overflow or back up in an objectionable way or any discharge of whatever duration that interferes with the proper operation of the wastewater treatment facilities or pumping stations.

(35) "State." The State of Tennessee.

(36) "Standard industrial classification (SIC)." A classification pursuant to the Standard Industrial Classification Manual issued by the Executive Office of the President, Office of Management and Budget, 1972.

(37) "Storm water." Any flow occurring during or following any form of natural precipitation and resulting therefrom.

(38) "Storm sewer or storm drain." A pipe or conduit which carries storm and surface waters and drainage, but excludes sewage and industrial wastes; it may, however, carry cooling waters and unpolluted waters, upon approval of the superintendent.

(39) "Suspended solids." The total suspended matter that floats on the surface of, or is suspended in, water, wastewater or other liquids, and which is removable by laboratory filtering.

(40) "Superintendent." The person designated by the city to supervise the operation of the publicly owned treatment works and who is charged with certain duties and responsibilities by this chapter, or his duly authorized representative.

(41) "Toxic pollutant." Any pollutant or combination of pollutants listed as toxic in regulations published by the Administrator of the Environmental Protection Agency under the provision of CWA 307(a) or other Acts.

(42) "Twenty-four (24) hour flow proportional composite sample." A sample consisting of several sample portions collected during a 24-hour period in which the portions of a sample are proportioned to the flow and combined to form a representative sample.

(43) "User." Any person who contributes, causes or permits the contribution of wastewater into the city's POTW.

(44) "Wastewater." The liquid and water-carried industrial or domestic wastes from dwellings, commercial buildings, industrial facilities, and institutions, whether treated or untreated, which is contributed into or permitted to enter the POTW.

(45) "Wastewater treatment systems." Defined the same as POTW.

(46) "Waters of the state." All streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and other bodies of accumulation of water, surface or underground, natural or artificial, public or private, that are contained within, flow through or border upon the state or any portion thereof. (1994 Code, § 18-202)

18-203. Connection to public sewers. (1) Requirements for proper wastewater disposal. (a) It shall be unlawful for any person to place, deposit, or permit to be deposited in any unsanitary manner on public or private property within the service area of the City of South Pittsburg, any human or animal excrement, garbage, or other objectionable waste.

(b) It shall be unlawful to discharge to any waters of the state within the service area of the City of South Pittsburg any sewage or other polluted waters, except where suitable treatment has been provided in accordance with subsequent provisions of this chapter.

(c) Except as herein provided, it shall be unlawful to construct or maintain any privy, privy vault, septic tank, cesspool, or other facility intended or used for the disposal of sewage.

(d) Except as provided in § 18-203(1)(e) below, the owner of all houses, buildings, or properties used for human occupancy, employment, recreation, or other purposes situated within the service area and abutting on any street, alley, or right-of-way in which there is now

located or may in the future be located a public sanitary sewer in the service area, is hereby required at his expense to install suitable toilet facilities therein, and to connect such facilities directly with the proper public sewer in accordance with the provisions of the chapter, within sixty (60) days after date of official notice to do so, provided that said public sewer is within five hundred (500) feet of the building drain as defined herein.

(e) The owner of a manufacturing facility may discharge wastewater to the waters of the state provided that he obtains an NPDES permit and meets all requirements of the Federal Clean Water Act, the NPDES permit, and any other applicable local, state, or federal statutes and regulations.

(f) Where a public sanitary sewer is not available under the provisions of § 18-203(1)(d) above, the building sewer shall be connected to a private sewage disposal system complying with the provisions of § 18-204 of this chapter.

(2) Physical connection public sewer. (a) No person shall uncover, make any connections with or opening into, use, alter, or disturb any public sewer or appurtenance thereof without first obtaining a written permit from the superintendent as required by § 18-206 of this chapter.

(b) All costs and expenses incident to the installation, connection, and inspection of the building sewer shall be borne by the owner. The owner shall indemnify the city from any loss or damage that may directly or indirectly be occasioned by the installation of the building sewer.

(c) A separate and independent building sewer shall be provided for every building; except where one building stands at the rear of another on an interior lot and no private sewer is available or can be constructed to the rear building through an adjoining alley, court, yard, or driveway, the building sewer from the front building may be extended to the rear building and the whole considered as one building sewer.

(d) Old building sewers may be used in connection with new buildings only when they are found, on examination and tested by the superintendent to meet all requirements of this chapter. All others may be sealed to the specifications of the superintendent.

(e) Building sewers shall conform to the following requirements:

(i) The minimum size of a building sewer shall be four (4) inches.

(ii) The minimum depth of a building sewer shall be eighteen (18) inches.

(iii) Four (4) inch building sewers shall be laid on a grade greater than 1/8-inch per foot. Larger building sewers shall be laid on a grade that will produce a velocity when flowing full of at least 2.0 feet per second.

(iv) Slope and alignment of all building sewers shall be neat and regular.

(v) Building sewers shall be constructed only of:

(A) concrete or clay sewer pipe using rubber or neoprene compression joints of approved type;

(B) cast iron soil pipe with leaded or compression joints;

(C) polyvinyl chloride pipe with solvent welded or with rubber compression joints;

(D) ABS composite sewer pipe with solvent welded or rubber compression joints of approved type; or

(E) such other materials of equal or superior quality as may be approved by the superintendent. Under no circumstances will cement mortar joints be acceptable.

(vi) A cleanout shall be located five (5) feet outside of the building, one as it taps on to the utility lateral and one at each change of direction of the building sewer which is greater than 45 degrees. Additional cleanouts shall be placed not more than seventy-five (75) feet apart in horizontal building sewers of four (4) inch nominal diameter and not more than one hundred (100) feet apart for larger pipes. Cleanouts shall be extended to or above the finished grade level directly above the place where the cleanout is installed. A "Y" (wye) and 1/8 bend shall be used for the cleanout base. Cleanouts shall not be smaller than four (4) inches on a four (4) inch pipe.

(vii) Connections of building sewers to the public sewer system shall be made at the appropriate existing wye or tee branch using compression type couplings or collar type rubber joint with corrosion resisting or stainless steel bands. Where existing wye or tee branches are not available, connections of building services shall be made by either removing a length of pipe and replacing it with a wye or tee fitting or cutting a clean opening in the existing public sewer and installing a tee-saddle or tee-insert of a type approved by the superintendent. All such connections shall be made gastight and watertight.

(viii) The building sewer may be brought into the building below the basement floor when gravity flow from the building to the sanitary sewer is at a grade of 1/8-inch per foot or more if possible. In cases where basement or floor levels are lower than the ground elevation at the point of connection to the sewer, adequate precautions by installation of check valves or other backflow prevention devices to protect against flooding shall be provided by the owner. In all buildings in which any building drain is too low to permit gravity flow to the public sewer, sanitary

sewage carried by such building drain shall be lifted an approved means and discharged to the building sewer at the expense of the owner.

(ix) The methods to be used in excavating, placing of pipe, jointing, testing, backfilling the trench, or other activities in the construction of a building sewer which have not been described above shall conform to the requirements of the building and plumbing code or other applicable rules and regulations of the city or to the procedures set forth in appropriate specifications of the ASTM and Water Pollution Control Federal Manual of Practice No. 9. Any deviation from the prescribed procedures and materials must be approved by the superintendent before installation.

(x) An installed building sewer shall be gastight and watertight.

(f) All excavations for building sewer installation shall be adequately guarded with barricades and lights so as to protect the public from hazard. Streets, sidewalks, parkways, and other public property disturbed in the course of the work shall be restored in a manner satisfactory to the city.

(g) No person shall make connection of roof downspouts, exterior foundation drains, areaway drains, basement drains, or other sources of surface runoff or groundwater to a building sewer or building drain which in turn is connected directly or indirectly to a public sanitary sewer.

(3) Inspection of connections. (a) The sewer connection and all building sewers from the building to the public sewer main line shall be inspected before the underground portion is covered, by the superintendent or his authorized representative.

(b) The applicant for discharge shall notify the superintendent when the building sewer is ready for inspection and connection to the public sewer. The connection shall be made under the supervision of the superintendent or his representative.

(4) Maintenance of building sewers. Each individual property owner or user of the POTW shall be entirely responsible for the maintenance of the building sewer located on private property. This maintenance will include repair or replacement of the service line as deemed necessary by the superintendent to meet specifications of the city. (1994 Code, § 18-203)

18-204. Private domestic wastewater disposal. (1) Availability.

(a) Where a public sanitary sewer is not available under the provisions of § 18-203(1)(d), the building sewer shall be connected to a private wastewater disposal system complying with the provisions of this section.

(b) Any residence, office, recreational facility, or other establishment used for human occupancy where the building drain is below the elevation to obtain a grade equivalent to 1/8-inch per foot in the building sewer but is otherwise accessible to a public sewer as provided in § 18-203, the owner shall provide a private sewage pumping station as provided in § 18-203(2)(e)(8).

(c) Where a public sewer becomes available, the building sewer shall be connected to said sewer within sixty (60) days after date of official notice to do so.

(2) **Requirements.** (a) A private domestic wastewater disposal system may not be constructed within the service area unless and until a certificate is obtained from the superintendent stating that a public sewer is not accessible to the property and no such sewer is proposed for construction in the immediate future. No certificate shall be issued for any private domestic wastewater disposal system employing subsurface soil absorption facilities where the area of the lot is less than that specified by the city and Marion County Health Department.

(b) Before commencement of construction of a private sewage disposal system, the owner shall first obtain written permission from the city and Marion County Health Department. The owner shall supply any plans, specifications, and other information as are deemed necessary by the city and Marion County Health Department.

(c) A private sewage disposal system shall not be placed in operation until the installation is completed to the satisfaction of the city and Marion County Health Department. They shall be allowed to inspect the work at any stage of construction and, in any event, the owner shall notify the city and Marion County Health Department when the work is ready for final inspection, before any underground portions are covered. The inspection shall be made within a reasonable period of time after the receipt of notice by the city and Marion County Health Department.

(d) The type, capacity, location, and layout of a private sewage disposal system shall comply with all recommendations of the Department of Health and Environment of the State of Tennessee and the city and Marion County Health Department. No septic tank or cesspool shall be permitted to discharge to any natural outlet.

(e) The owner shall operate and maintain the private sewage disposal facilities in a sanitary manner at all times, at no expense to the city.

(f) No statement contained in this chapter shall be construed to interfere with any additional requirements that may be imposed by the city and Marion County Health Department. (1994 Code, § 18-204)

18-205. Regulation of holding tank waste disposal. (1) **Permit.** No person, firm, association or corporation shall clean out, drain, or flush any septic

tank or any other type of wastewater or excreta disposal system, unless such person, firm, association, or corporation obtains a permit from the superintendent to perform such acts or services.

Any person, firm, association, or corporation desiring a permit to perform such services shall file an application on the prescribed form. Upon any such application, said permit shall be issued by the superintendent when the conditions of this chapter have been met and providing the superintendent is satisfied the applicant has adequate and proper equipment to perform the services contemplated in a safe and competent manner.

(2) Fees. For each permit issued under the provisions of this chapter, an annual service charge therefore shall be paid to the city to be set as specified in § 18-211. Any such permit granted shall be for one full fiscal year or fraction of the fiscal year, and shall continue in full force and effect from the time issued until the ending of the fiscal year, unless sooner revoked, and shall be nontransferable. The number of the permit granted hereunder shall be plainly painted on each side of each motor vehicle used in the conduct of the business permitted hereunder.

(3) Designated disposal locations. The superintendent shall designate approved locations for the emptying and cleansing of all equipment used in the performance of the services rendered under the permit herein provided for, and it shall be a violation hereof for any person, firm, association or corporation to empty or clean such equipment at any place other than a place so designated.

(4) Revocation of permit. Failure to comply with all the provisions of this chapter shall be sufficient cause for the revocation of such permit by the superintendent. The possession within the service area by any person of any motor vehicle equipped with a body type and accessories of a nature and design capable of serving a septic tank of wastewater or excreta disposal system cleaning unit shall be prima facie evidence that such person is engaged in the business of cleaning, draining, or flushing septic tanks or other wastewater or excreta disposal systems within the service area of the City of South Pittsburg. (1994 Code, § 18-205)

18-206. Application for domestic wastewater discharge and industrial wastewater discharge permits. (1) Application for discharge of domestic wastewater. All users or prospective users which generate domestic wastewater shall make application to the superintendent for written authorization to discharge to the municipal wastewater treatment system. Applications shall be required from all new dischargers as well as for any existing discharger desiring additional service. Connection to the municipal sewer shall not be made until the application is received and approved by the superintendent, the building sewer is installed in accordance with § 18-201 of this chapter and an inspection has been performed by the superintendent or his representative.

The receipt by the city of a prospective customer's application for service shall not obligate the city to render the service. If the service applied for cannot be supplied in accordance with this chapter and the city's rules and regulations and general practice, the connection charge will be refunded in full, and there shall be no liability of the city to the applicant for such service, except that conditional waivers for additional services may be granted by the superintendent for interim periods if compliance may be assured within a reasonable period of time.

(2) Industrial wastewater discharge permits. (a) General requirements. All industrial users proposing to connect to or to contribute to the POTW shall obtain a wastewater discharge permit before connecting to or contributing to the POTW. All existing industrial users connected to or contributing to the POTW shall acquire a permit within 180 days after the effective date of this chapter.

(b) Applications. Applications for wastewater discharge permits shall be required as follows:

(i) Users required to obtain a wastewater discharge permit shall complete and file with the superintendent, an application on a form prescribed by the superintendent, and accompanied by the appropriate fee. Existing users shall apply for a wastewater contribution permit within 60 days after the effective date of this chapter, and proposed new users shall apply at least 90 days prior to connecting to or contributing to the POTW.

(ii) The application shall be in the prescribed form of the city and shall include, but not be limited to the following information: name, address and SIC number of applicant; wastewater volume; wastewater constituents and characteristics; discharge variations -- daily, monthly, seasonal and 30 minute peaks; a description of all toxic materials handled on the premises; site plans, floor plans, mechanical and plumbing plans and details showing all sewers and appurtenances by size, location and elevation; a description of existing and proposed pretreatment and/or equalization facilities and any other information deemed necessary by the superintendent.

(iii) Any user who elects or is required to construct new or additional facilities for pretreatment shall as part of the application for wastewater discharge permit submit plans, specifications and other pertinent information relative to the proposed construction to the superintendent for approval. Plans and specifications submitted for approval must bear the seal of a professional engineer registered to practice engineering in the State of Tennessee. A wastewater discharge permit shall not be issued until such plans and specifications are approved. Approval of such plans and specifications shall in no way relieve the user

from the responsibility of modifying the facility as necessary to produce an effluent acceptable to the city under the provisions of this chapter.

(iv) If additional pretreatment and/or O&M will be required to meet the pretreatment standards, the application shall include the shortest schedule by which the user will provide such additional pretreatment. The completion date in this schedule shall not be later than the compliance date established for the applicable pretreatment standard. For the purpose of this paragraph, "pretreatment standard," shall include either a national pretreatment standard or a pretreatment standard imposed by § 18-207 of this chapter.

(v) The city will evaluate the data furnished by the user and may require additional information. After evaluation and acceptance of the data furnished, the city may issue a wastewater discharge permit subject to terms and conditions provided herein.

(vi) The receipt by the city of a prospective customer's application for wastewater discharge permit shall not obligate the city to render the wastewater collection and treatment service. If the service applied for cannot be supplied in accordance with this chapter or the city's rules and regulations and general practice, the application shall be rejected and there shall be no liability of the city to the applicant of such service.

(vii) The superintendent will act only on applications containing all the information required in this section. Persons who have filed incomplete applications will be notified by the superintendent that the application is deficient and the nature of such deficiency and will be given thirty (30) days to correct the deficiency. If the deficiency is not corrected within thirty (30) days or within such extended period as allowed by the superintendent, the superintendent shall submit the application to the mayor with a recommendation that it be denied and notify the applicant in writing of such action.

(c) Permit conditions. Wastewater discharge permits shall be expressly subject to all provisions of this chapter and all other applicable regulations, user charges and fees established by the city. Permits may contain the following:

(i) The unit charge or schedule of user charges and fees for the wastewater to be discharged to a community sewer;

(ii) Limits on the average and maximum rate and time of discharge or requirements and equalization;

(iii) Requirements for installation and maintenance of inspections and sampling facilities;

(iv) Specifications for monitoring programs which may include sampling locations, frequency of sampling, number, types, and standards for tests and reporting schedule;

(v) Compliance schedules;

(vi) Requirements for submission of technical reports or discharge reports;

(vii) Requirements for maintaining and retaining plant records relating to wastewater discharge as specified by the city, and affording city access thereto;

(viii) Requirements for notification of the city of any new introduction of wastewater constituents or any substantial change in the volume or character of the wastewater constituents being introduced into the wastewater treatment system.

(ix) Requirements for notification of slug discharged;

(x) Other conditions as deemed appropriate by the city to ensure compliance with this chapter.

(d) Permit modifications. Within nine months of the promulgation of a national categorical pretreatment standard, the wastewater discharge permit of users subject to such standards shall be revised to require compliance with such standard within the time frame prescribed by such standard. A user with an existing wastewater discharge permit shall submit to the superintendent within 180 days after the promulgation of an applicable federal categorical pretreatment standard the information required by §§ 18-206(2)(b)(ii) and (iii). The terms and conditions of the permit may be subject to modification by the superintendent during the term of the permit as limitations or requirements are modified or other just cause exists. The user shall be informed of any proposed changes in this permit at least 30 days prior to the effective date of change. Any changes or new conditions in the permit shall include a reasonable time schedule for compliance.

(e) Permits duration. Permits shall be issued for a specified time period, not to exceed five (5) years. A permit may be issued for a period less than a year or may be stated to expire on a specific date. The user shall apply for permit reissuance a minimum of 180 days prior to the expiration of the user's existing permit.

(f) Permit transfer. Wastewater discharge permits are issued to a specific user for a specific operation. A wastewater discharge permit shall not be reassigned or transferred or sold to a new owner, new user, different premises, or a new or changed operation without the approval of the city. Any succeeding owner or user shall also comply with the terms and conditions of the existing permit.

(g) Revocation of permit. Any permit issued under the provisions of this chapter is subject to be modified, suspended, or revoked

in whole or in part during its term for cause including, but not limited to, the following:

(i) Violation of any terms or conditions of the wastewater discharge permit or other applicable federal, state, or local law or regulation.

(ii) Obtaining a permit by misrepresentation or failure to disclose fully all relevant facts.

(iii) A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.

(iv) Intentional failure of a user to accurately report the discharge constituents and characteristics or to report significant changes in plant operations or wastewater characteristics.

(3) Confidential information. All information and data on a user obtained from reports, questionnaire, permit application, permits and monitoring programs and from inspection shall be available to the public or any governmental agency without restriction unless the user specifically requests and is able to demonstrate to the satisfaction of the superintendent that the release of such information would divulge information, processes, or methods of production entitled to protection as trade secrets of the users.

When requested by the person furnishing the report, the portions of a report which might disclose trade secrets or secret processes shall not be made available for inspection by the public, but shall be made available to governmental agencies for use; related to this chapter or the city's or user's NPDES permit. Provided, however, that such portions of a report shall be available for use by the state or any state agency in judicial review or enforcement proceedings involving the person furnishing the report. Wastewater constituents and characteristics will not be recognized as confidential information.

Information accepted by the superintendent as confidential shall not be transmitted to any governmental agency or to the general public by the superintendent until and unless prior and adequate notification is given to the user. (1994 Code, § 18-206)

18-207. Discharge regulations. (1) General discharge prohibitions. No user shall contribute or cause to be contributed, directly or indirectly, any pollutant or wastewater which will interfere with the operation and performance of the POTW. These general prohibitions apply to all such users of a POTW whether or not the user is subject to national categorical pretreatment standards or any other national, state, or local pretreatment standards or requirements. A user may not contribute the following substances to any POTW:

(a) Any liquids, solids, or gases which by reason of their nature or quantity are, or may be, sufficient either alone or by interaction with

other substances to cause fire or explosion or be injurious in any other way to the POTW or to the operation of the POTW. At no time, shall two successive readings on an explosion hazard meter, at the point of discharge into the system (or at any point in the system) be more than five percent (5%) nor any single reading over twenty percent (20%) of the lower explosive limit (LEL) of the meter. Prohibited materials include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromate, carbides, hydrides and sulfides and any other substances which the city, the state or EPA has notified the user is a fire hazard or a hazard to the system.

(b) Solid or viscous substances which may cause obstruction to the flow in a sewer or other interference with the operation of the wastewater treatment facilities such as, but not limited to: grease, garbage with particles greater than one-half inch (1/2") in any dimension, paunch manure, bones, hair, hides, or fleshings, entrails, whole blood, feathers, ashes, cinders, sand, spent lime, stone or marble dust, metal, glass, straw, shavings, grass clippings, rags, spent grains, spent hops, waste paper, wood, plastics, gas, tar, asphalt residues from refining, or processing of fuel or lubricating oil, mud, or glass grinding or polishing wastes.

(c) Any wastewater having a Ph less than 5.0 or higher than 9.5 or wastewater having any other corrosive property capable of causing damage or hazard to structures, equipment, and/or personnel of the POTW.

(d) Any wastewater containing any toxic pollutants, chemical elements, or compounds in sufficient quantity, either singly or by interaction with other pollutants, to injure or interfere with any wastewater treatment process, constitute a hazard to humans or animals, create a toxic effect in the receiving waters of the POTW, or to exceed the limitation set forth in a categorical pretreatment standard. A toxic pollutant shall include but not be limited to any pollutant identified pursuant to Section 307(a) of the Act.

(e) Any noxious or malodorous liquids, gases, or solids which either singly or by interaction with other wastes are sufficient to create a public nuisance or hazard to life or are sufficient to prevent entry into the sewers for maintenance and repair.

(f) Any substance which may cause the POTW's effluent or any other product of the POTW such as residues, sludges, or scums, to be unsuitable for reclamation and reuse or to interfere with the reclamation process. In no case, shall a substance discharged to the POTW cause the POTW to be in non-compliance with sludge use or under Section 405 of the Act; any criteria, guidelines, or regulations affecting sludge use or disposal developed pursuant to the Solid Waste Disposal Act, the Clean

Air Act, the Toxic Substances Control Act, or state criteria applicable to the sludge management method being used.

(g) Any substances which will cause the POTW to violate its NPDES Permit or the receiving water quality standards.

(h) Any wastewater causing discoloration of the wastewater treatment plant effluent to the extent that the receiving stream water quality requirements would be violated, such as, but not limited to, dye wastes and vegetable tanning solutions.

(i) Any wastewater having a temperature which will inhibit biological activity in the POTW treatment plant resulting in interference, but in no case wastewater with a temperature at the introduction into the POTW which exceeds 40°C (104° F).

(j) Any pollutants, including oxygen demanding pollutants (BOD, etc.) released at a flow rate and/or pollutant concentration which a user knows or has reason to know will cause interference to the POTW.

(k) Any waters or wastes causing an unusual volume of flow or concentration of waste constituting "slug" as defined herein.

(l) Any wastewater containing any radioactive wastes or isotopes of such half-life or concentration as may exceed limits established by the superintendent in compliance with applicable state or federal regulations.

(m) Any wastewater which causes a hazard to human life or creates a public nuisance.

(n) Any waters or wastes containing fats, wax, grease, or oil, whether emulsified or not, in excess of one hundred (100) mg/l or containing substances which may solidify or become viscous at temperature between thirty-two (32) or one hundred fifty (150) degrees F (0 and 65° C).

(o) Any stormwater, surface water, groundwater, roof runoff, subsurface drainage, uncontaminated cooling water, or unpolluted industrial process waters to any sanitary sewer. Stormwater and all other unpolluted drainage shall be discharged to such sewers as are specifically designated as storm sewers, or to a natural outlet approved by the superintendent and the Tennessee Department of Health and Environment. Industrial cooling water or unpolluted process waters may be discharged on approval of the superintendent and the Tennessee Department of Health and Environment, to a storm sewer or natural outlet.

(2) Restrictions on wastewater strength. No person or user shall discharge wastewater which exceeds the following set of standards (Table A - User Discharge Restrictions) unless an exception is permitted as provided in this chapter. Dilution of any wastewater discharge for the purpose of satisfying these requirements shall be considered in violation of this chapter.

Table A - User Discharge Restrictions

Pollutant	Daily Average* Maximum Concentration (mg/l)	Instantaneous Maximum Concentration (mg/l)
Antimony	5.0	8.0
Arsenic	1.0	1.5
Cadmium	1.0	1.5
Chromium (total)	4.0	7.0
Copper	3.0	5.0
Cyanide	1.0	2.0
Lead	1.0	1.5
Mercury	0.1	0.2
Nickel	3.0	4.5
Pesticides & Herbicides	0.5	1.0
Phenols	10.0	15.0
Selenium	1.0	1.5
Silver	1.0	1.5
Surfactants, as MBAS	25.0	50.0
Zinc	.6	5.0

*Based on 24-hour flow proportional composite samples.

(3) Protection of treatment plant influent. The superintendent shall monitor the treatment works influent for each parameter in the following table. (Table B - Plant Protection Criteria). Industrial users shall be subject to reporting and monitoring requirements regarding these parameters as set forth in this chapter. In the event that the influent at the POTW reaches or exceeds the levels established by this table, the superintendent shall initiate technical studies to determine the cause of the influent violation and shall recommend to the city the necessary remedial measures, including, but not limited to, recommending the establishment of new or revised pre-treatment levels for these parameters. The superintendent shall also recommend changes to any of these criteria in the event that: the POTW effluent standards are changed, there are changes in any applicable law or regulation affecting same, or changes are needed for more effective operation of the POTW.

Table B-Plant Protection Criteria

Parameter	Suspended Solids Maximum Concentration (mg/l) (24 Hour Flow) Proportional Composite Sample	Maximum Instantaneous Concentration (mg/l) Grab Sample
Aluminum dissolved (AL)		6.0
Antimony (Sb)	3.00	1.0
Arsenic (As)	0.50	0.12
Barium (Ba)	0.06	5.0
Boron (B)	2.50	0.8
Cadmium (Cd)	0.4	0.008
Chromium Hex	0.004	0.12
Cobalt (Co)	0.06	0.06
Copper (Cu)	0.03	0.32
Cyanide (CN)	0.16	0.06
Fluoride (F)	0.03	1.2
Iron (Fe)	0.6	6.0
Lead (Pb)	3.0	0.2
Manganese (Mn)	0.10	0.2
Mercury (Hg)	0.1	0.05
Nickel (Ni)	0.025	0.30
Pesticides & Herbicides	0.15	.002
Phenols	.001	2.0
Selenium (Se)	1.00	0.02
Silver (Ag)	0.01	0.1
Sulfide	0.05	40.0
Zinc (Zn)	25.0	0.6
Total Kjeldahl Nitrogen (TKN)	0.3	90.00
Oil & Grease	45.00	100.00
MBAS	50.00	10.0
BOD	5.00	
COD	*	
	*	
	*	

*Not to exceed the design capacity of treatment works.
BDL= Below Detectable Limits

(4) Federal categorical pretreatment standards. Upon the promulgation of the federal categorical pretreatment standards for a particular industrial subcategory, the federal standard, if more stringent than limitations imposed under this chapter for sources in that subcategory, shall immediately supersede the limitations imposed under this chapter. The superintendent shall notify all affected users of the applicable reporting requirements under 40 CFR, Section 403.12.

(5) Right to establish more restrictive criteria. No statement in this chapter is intended or may be construed to prohibit the superintendent from establishing specific wastewater discharge criteria more restrictive where wastes are determined to be harmful or destructive to the facilities of the POTW or to create a public nuisance, or to cause the discharge of the POTW to violate effluent or stream quality standards, or to interfere with the use or handling of sludge, or to pass through the POTW resulting in a violation of the NPDES permit, or to exceed industrial pretreatment standards for discharge to municipal wastewater treatment systems as imposed or as may be imposed by the Tennessee Department of Health and Environment and/or the United States Environmental Protection Agency.

(6) Special agreements. Nothing in this section shall be construed so as to prevent any special agreement or arrangement between the city and any user of the wastewater treatment system whereby wastewater of unusual strength or character is accepted into the system and specially treated subject to any payments or user charges as may be applicable. The making of such special agreements or arrangements between the city and the user shall be strictly limited to the capability of the POTW to handle such wastes without interfering with unit operations or sludge use and handling or allowing the pass through of pollutants which would result in a violation of the NPDES permit. No special agreement or arrangement may be made without documentation by the industry of the use of good management practice in the reduction of wastewater volume and strength.

(7) Exceptions to discharge criteria.

(a) Application for exception. Non-residential users of the POTW may apply for a temporary exception to the prohibited and restricted wastewater discharge criteria listed in § 18-207(1) and (2) of this chapter. Exceptions can be granted according to the following guidelines.

The superintendent shall allow applications for temporary exceptions at any time. However, the superintendent shall not accept an application if the applicant has submitted the same or substantially similar application within the preceding year and the same has been denied by the city.

All applications for an exception shall be in writing, and shall contain sufficient information for evaluation of each of the factors to be considered by the city in its review of the application.

(b) Conditions. All exceptions granted under this section shall be temporary and subject to revocation at any time by the superintendent upon reasonable notice.

The user requesting the exception must demonstrate to the superintendent that he is making a concentrated and serious effort to maintain high standards of operation control and housekeeping levels, etc., so that discharges to the POTW are being minimized. If negligence is found, permits will be subject to termination. The user requesting the exception must demonstrate that compliance with stated concentration and quantity standards is technically or economically infeasible and the discharge, if excepted, will not:

- (i) interfere with the normal collection and operation of the wastewater treatment system.
- (ii) limit the sludge management alternatives available and increase the cost of providing adequate sludge management.
- (iii) pass through the POTW in quantities and/or concentrations that would cause the POTW to violate its NPDES permit.

The user must show that the exception, if granted, will not cause the discharger to violate its inforce federal pretreatment standards unless the exception is granted under the provisions of the applicable pretreatment regulations.

A surcharge shall be applied to any exception granted under this subsection. These surcharges shall be applied for that concentration of the pollutant for which the variance has been granted in excess of the concentration stipulated in this chapter based on the average daily flow of the user.

(c) Review of application by the superintendent. All applications for an exception shall be reviewed by the superintendent. If the application does not contain sufficient information for complete evaluation, the superintendent shall notify the applicant of the deficiencies and request additional information. The applicant shall have thirty (30) days following notification by the superintendent to correct such deficiencies. This thirty (30) day period may be extended by the city upon application and for just cause shown. Upon receipt of a complete application, the superintendent shall evaluate same within thirty (30) days and shall submit his recommendations to the city at its next regularly scheduled meeting.

(d) Review of application by the city. The city shall review and evaluate all applications for exceptions and shall take into account the following factors:

- (i) whether or not the applicant is subject to a national pretreatment standard containing discharge limitations more stringent than those in § 18-207 and grant an exception only if

such exception may be granted within limitations of applicable federal regulations;

(ii) whether or not the exception would apply to discharge of a substance classified as a toxic substance under regulations promulgated by the Environmental Protection Agency under the provisions of Section 307 (a) of the Act (33 U.S.C. 1317), and then grant an exception only if such exception may be granted within the limitations of applicable federal regulations;

(iii) whether or not the granting of an exception would create conditions that would reduce the effectiveness of the treatment works taking into consideration the concentration of said pollutant in the treatment works' influent and the design capability of the treatment works;

(iv) the cost of pretreatment or other types of control techniques which would be necessary for the user to achieve effluent reduction, but prohibitive costs alone shall not be the basis for granting an exception;

(v) the age of equipment and industrial facilities involved to the extent that such factors affect the quality or quantity of wastewater discharge;

(vi) the process employed by the user and process changes available which would affect the quality or quantity of wastewater discharge;

(vii) the engineering aspects of various types of pretreatment or other control techniques available to the user to improve the quality or quantity of wastewater discharge;

(8) Accidental discharges. (a) Protection from accidental discharge. All industrial users shall provide such facilities and institute such procedures as are reasonably necessary to prevent or minimize the potential for accidental discharge into the POTW of waste regulated by this chapter from liquid or raw material storage areas, from truck and rail car loading and unloading areas, from in-plant transfer or processing and materials handling areas, and from diked areas or holding ponds of any waste regulated by this chapter. The wastewater discharge permit of any user who has a history of significant leaks, spills, or other accidental discharge of waste regulated by this chapter shall be subject on a case-by-case basis to a special permit condition or requirement for the construction of facilities establishment of procedures which will prevent or minimize the potential for such accidental discharge. Facilities to prevent accidental discharge of prohibited materials shall be provided and maintained at the user's expense. Detailed plans showing the facilities and operating procedures shall be submitted to the superintendent before the facility is constructed.

The review and approval of such plans and operating procedures will in no way relieve the user from the responsibility of modifying the facility to provide the protection necessary to meet the requirements of this chapter.

(b) Notification of accidental discharge. Any person causing or suffering from any accidental discharge shall immediately notify the superintendent (or his designated official) by telephone to enable countermeasures to be taken by the superintendent to minimize damage to the POTW, the health and welfare of the public, and the environment.

This notification shall be followed, within five (5) days of the date of occurrence, by a detailed written statement describing the cause of the accidental discharge and the measures being taken to prevent future occurrence.

Such notification will not relieve the user of liability for any expense, loss, or damage to the POTW, fish kills, or any other damage to person or property; nor shall such notification relieve the user of any fines, civil penalties, or other liability which may be imposed by this chapter or state or federal law.

(c) Notice to employees. A notice shall be permanently posted on the user's bulletin board or other prominent place advising employees whom to call in the event of a dangerous discharge. Employers shall ensure that all employees who may cause or suffer such a dangerous discharge to occur are advised of the emergency notification procedure. (1994 Code, § 18-207)

18-208. Industrial user monitoring, inspection reports, records access, and safety. (1) Monitoring facilities. The installation of a monitoring facility shall be required for all industrial users having wastes which receive pretreatment, are otherwise altered or regulated before discharge, or are unusually strong and thereby subject to a surcharge. Monitoring facility shall be a manhole or other suitable facility approved by the superintendent.

When, in the judgement of the superintendent there is a significant difference in wastewater constituents and characteristics produced by different operations of a single user the superintendent may require that separate monitoring facilities be installed for each separate source of discharge.

Monitoring facilities that are required to be installed shall be constructed and maintained at the user's expense. The purpose of the facility is to enable inspection, sampling and flow measurement of wastewater produced by a user. If sampling or metering equipment is also required by the superintendent, it shall be provided and installed at the user's expense.

The monitoring facility will normally be required to be located on the user's premises outside of the building. The superintendent may, however, when such a location would be impractical or cause undue hardship on the user, allow the facility to be constructed in the public street right-of-way with the

approval of the public agency having jurisdiction of that right-of-way and located so that it will not be obstructed by landscaping or parked vehicles.

There shall be ample room in or near such sampling manhole or facility to allow accurate sampling and preparation of samples for analysis. The facility, sampling, and measuring equipment shall be maintained at all times in a safe and proper operating condition at the expenses of the user.

Whether constructed on public or private property, the monitoring facilities shall be constructed in accordance with the superintendent's requirements and all applicable local agency construction standards and specifications. When, in the judgment of the superintendent, an existing notified in writing. Construction must be completed within 180 days following written notification unless an extension is granted by the superintendent.

(2) Inspection and sampling. The city shall inspect the facilities of any user to ascertain whether the purpose of this chapter is being met and all requirements are being complied with. Persons or occupants of premises where wastewater is created or discharged shall allow the city or their representative ready access at all reasonable times to all parts of the premises for the purpose of inspection, sampling, records examination or in the performance of any of their duties. The city, approval authority and EPA shall have the right to set up on the user's property such devices as are necessary to conduct sampling inspection, compliance monitoring and/or metering operations. Where a user has security measures in force which would require proper identification and clearance before entry into their premises, the user shall make necessary arrangements with their security guards so that upon presentation of suitable identification, personnel from the city, approval authority and EPA will be permitted to enter, without delay, for the purposes of performing their specific responsibility. The superintendent or his representatives shall have no authority to inquire into any manufacturing process beyond that point having a direct bearing on the level and sources of discharge to the sewers, waterways, or facilities for waste treatment.

(3) Compliance date report. Within 180 days following the date for final compliance with applicable pretreatment standards or, in the case of a new source, following commencement of the introduction of wastewater into the POTW, any user subject to pretreatment standards and requirements shall submit to the superintendent a report indicating the nature and concentration of all pollutants in the discharge from the regulated process which are limited by pretreatment standards and requirements and the average and maximum daily flow for these process units in the user facility which are limited by such pretreatment standards or requirements. The report shall state whether the applicable pretreatment standards or requirements are being met on a consistent basis and, if not, what additional O&M and/or pretreatment is necessary to bring the user into compliance with the applicable pretreatment standards or requirements. This statement shall be signed by an authorized representative of the industrial user, and certified to by a qualified professional.

(4) Periodic compliance reports. (a) Any user subject to a pretreatment standard, after the compliance date of such pretreatment standard, or, in the case of a new source, after commencement of the discharge into the POTW, shall submit to the superintendent during the months of June and December, unless required more frequently in the pretreatment standard or by the superintendent, a report indicating the nature and concentration of pollutants in the effluent which are limited by such pretreatment standards.

In addition, this report shall include a record of all daily flows which during the reporting period exceeded the average daily flow. At the discretion of the superintendent and in consideration of such factors as local high or low flow rates, holidays, budget cycles, etc., the superintendent may agree to alter the months during which the above reports are to be submitted.

(b) The superintendent may impose mass limitations on users where the imposition of mass limitations are appropriate. In such cases, the report required by subparagraph (a) of this paragraph shall indicate the mass of pollutants regulated by pretreatment standards in the effluent of the user.

(c) The reports required by this section shall contain the results of sampling and analysis of the discharge, including the flow and the nature and concentration or production and mass where requested by the superintendent of pollutants contained therein which are limited by the applicable pretreatment standards. The frequency of monitoring shall be prescribed in the wastewater discharge permit or the pretreatment standard. All analysis shall be performed in accordance with procedures established by the administrator pursuant to Section 304(g) of the Act and contained in 40 CFR, Part 136 and amendments thereto or with any other test procedures approved by the superintendent. Sampling shall be performed in accordance with techniques approved by the superintendent.

(5) Maintenance of records. Any industrial user subject to the reporting requirements established in this section shall maintain records of all information resulting from any monitoring activities required by this section. Such records shall include for all samples:

- (a) The date, exact place, method, and time of sampling and the names of the persons taking the samples;
- (b) The dates analyses were performed;
- (c) Who performed the analyses;
- (d) The analytical techniques/methods used; and
- (e) The results of such analyses.

Any industrial user subject to the reporting requirement established in this section shall be required to retain for a minimum of three (3) years all records of monitoring activities and results (whether or not such monitoring activities

are required by this section) and shall make such records available for inspection and copying by the superintendent, Director of the Division of Water Quality Control, Tennessee Department of Health and Environment or the Environmental Protection Agency. This period of retention shall be extended during the course of any unresolved litigation regarding the industrial user or when requested by the superintendent, the approval authority, or the Environmental Protection Agency.

(6) Safety. While performing the necessary work on private properties, the superintendent or duly authorized employees of the city shall observe all safety rules applicable to the premises established by the company and the company shall be held harmless for injury or death to the city employees and the city shall indemnify the company against loss or damage to its property by city employees and against liability claims and demands for personal injury or property damage asserted against the company and growing out of the monitoring and sampling operation, except as such may be caused by negligence or failure of the company to maintain safe conditions. (1994 Code, § 18-208)

18-209. Enforcement and abatement. (1) Issuance of cease and desist orders. When the superintendent finds that a discharge of wastewater has taken place in violation of prohibitions or limitations of this chapter, or the provisions of a wastewater discharge permit, the superintendent shall issue an order to cease and desist, and direct that these persons not complying with such prohibitions, limits requirements, or provisions to:

- (a) Comply forthwith;
- (b) Comply in accordance with a time schedule set forth by the superintendent;
- (c) Take appropriate remedial or preventive action in the event of a threatened violation; or
- (d) Surrender the applicable user's permit if ordered to do so after a show cause hearing.

Failure of the superintendent to issue a cease and desist order to a violating user shall not in any way relieve the user from any consequences of a wrongful or illegal discharge.

(2) Submission of time. When the superintendent finds that a discharge of wastewater has been taking place in violation of prohibitions or limitations prescribed in this chapter, or wastewater source control requirements, effluent limitations of pretreatment standards, or the provisions of a wastewater discharge permit, the superintendent shall require the user to submit for approval, with such modifications as it deems necessary, a detailed time schedule of specific actions which the user shall take in order to prevent or correct a violation of requirements. Such schedule shall be submitted to the superintendent within 30 days of the issuance of the cease and desist order.

- (3) Show cause hearing. (a) The city may order any user who causes or allows an unauthorized discharge to enter the POTW to show cause

before the board of mayor and commissioners why the proposed enforcement action should not be taken. A notice shall be served on the user specifying the time and place of a hearing to be held by the board of mayor and commissioners regarding the violation, the reasons why the action is to be taken, the proposed enforcement action, and directing the user to show cause before the board of mayor and commissioners why the proposed enforcement action should not be taken. The notice of the hearing shall be served personally or by registered or certified mail (return receipt requested) at least ten (10) days before the hearing.

(b) The board of mayor and commissioners may itself conduct the hearing and take the evidence, or may designate any of its members or any officer or employee of the water sewer department to:

(i) Issue in the name of the board of mayor and commissioners notice of hearings requesting the attendance and testimony of witnesses and the production of evidence relevant to any matter involved in such hearings;

(ii) Take the evidence;

(iii) Transmit a report of the evidence and hearing, including transcripts and other evidence, together with recommendations to the board for action thereon.

(c) At any hearing held pursuant to this chapter, testimony taken must be under oath and recorded. The transcript, so recorded, will be made available to any member of the public or any party to the hearing upon payment of the usual charges thereof.

(d) After the board of mayor and commissioners has reviewed the evidence, it may issue an order to the user responsible for the discharge directing that, following a specified time period, the sewer service be discontinued unless adequate treatment facilities, devices or other related appurtenances shall have been installed on existing treatment facilities, and that these devices or other related appurtenances are properly operated. Further orders and directives as are necessary and appropriate may be issued.

(4) Legal action. If any person discharges sewage, industrial wastes, or other wastes into the city's wastewater disposal system contrary to the provisions of this chapter, federal or state pretreatment requirements, or any order of the city, the city attorney may commence an action for appropriate legal and/or equitable relief in the chancery court of this county.

(5) Emergency termination of service. In the event of an actual or threatened discharge to the POTW of any pollutant which in the opinion of the superintendent presents or may present an imminent and substantial endangerment to the health or welfare of persons, or cause interference with POTW, the superintendent or in his absence the person then in charge of the treatment works shall immediately notify the mayor of the nature of the emergency. The superintendent shall also attempt to notify the industrial user

or other person causing the emergency and request their assistance in abating same. Following consultation with the aforementioned officials of the city or in their absence such elected officials of the city as may be available, the superintendent shall temporarily terminate the service of such user or users as are necessary to abate the condition when such action appears reasonably necessary. Such service shall be restored by the superintendent as soon as the emergency situation has been abated or corrected.

(6) Public nuisance. Discharges or wastewater in any manner in violation of this chapter or of any order issued by the superintendent as authorized by this chapter is hereby declared a public nuisance and shall be corrected or abated as directed by the superintendent. Any person creating a public nuisance shall be subject to the provisions of the city codes or ordinances governing such nuisance.

(7) Correction of violation and collection of costs. In order to enforce the provisions of this chapter, the superintendent shall correct any violation hereof. The cost of such correction shall be added to any sewer service charge payable by the person violating this chapter or the owner or tenant of the property upon which the violation occurs, and the city shall have such remedies for the collection of such costs as it has for the collection of sewer service charges.

(8) Damage to facilities. When a discharge of wastes causes an obstruction, damage, or any other physical or operational impairment to facilities, the superintendent shall assess a charge against the user for the work required to clean or repair the facility and add such charge to the user's sewer service charge.

(9) Civil liabilities. Any person or user who intentionally or negligently violates any provision of this chapter, requirements, or conditions set forth in permit duly issued, or who discharges wastewater which causes pollution or violates any cease and desist order, prohibition, effluent limitation, national standard or performance, pretreatment, or toxicity standard, shall be liable civilly.

The City of South Pittsburg shall sue for such damage in any court of competent jurisdiction. In determining the damages, the court shall take into consideration all relevant circumstances, including, but not limited to, the extent of harm caused by the violation, the nature and persistence of the violation, the length of time over which the violation occurs, and the correcting action, if any. (1994 Code, § 18-209)

18-210. Penalties; costs. (1) Civil penalties. Any user who is found to have violated an order of the board of mayor and commissioners, or who willfully or negligently failed to comply with any provision of this chapter, and the order, rules, regulations and permits issued hereunder, shall be fined not less than fifty dollars (\$50.00) for each offense. Each day of which a violation shall occur or continue shall be deemed a separate and distinct offense. In addition to the

penalties provided herein, the city may recover reasonable attorney's fees, court costs, court reporters' fees and other expenses of litigation by appropriate suit at law against the person found to have violated this chapter or the orders, rules, regulations, and permits issued hereunder.

(2) Falsifying information. Any person who knowingly makes any false statements, representation or certification in any application, record, report, plan or other document filed or required to be maintained pursuant to this chapter, or wastewater discharge permit, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this chapter, shall, upon conviction be punished by a fine of not more than one thousand dollars (\$1,000) or by imprisonment for not more than six (6) months, or by both. (1994 Code, § 18-210)

18-211. Fees and billing. (1) Actual use. The USC shall be based on actual use, or estimated use, of wastewater treatment services. Each user or user class must pay their proportionate share of the costs of wastewater treatment services based on the quantity and quality of their discharge.

(2) Notification. Each user shall be notified annually in conjunction with their regular bill of the rate being charged for wastewater treatment services and that user charges are being used for the equitable recovery of costs from users of the city's wastewater treatment system, including costs of operation, maintenance, administration, bond service costs, capital improvement depreciation, and equitable cost recover of EPA administered federal wastewater grants.

(3) Financial management system. The UCS must establish a financial management system that will accurately account for revenues generated and expenditures of the wastewater system. This financial management system shall be based on an adequate budget identifying the basis for determining the annual operating expenses, interest expense, depreciation (if appropriate), and any reserve account requirements.

(4) Charges for inflow and/or infiltration. The UCS shall provide that the cost of operation and maintenance for all flow not directly attributable to users be distributed among all users in the same manner that it distributes the costs of the actual or estimated usage.

(5) Use of revenue. Revenue derived from a wastewater project funded by an EPA Grant or State Revolving Loan, including but not limited to, sale of treatment-related-by-products, lease of land, or sale of crops grown on land purchased shall offset current user charges as well as moderate future rate increases.

(6) Other municipalities. If the wastewater system accepts wastewater from other local governments, these subscribers receiving wastewater treatment services shall adopt user charge systems in accordance with the same state regulations requiring this section.

(7) Inconsistent agreements. This UCS shall take precedence over the terms or conditions of contracts between the city and users which are inconsistent with the requirements of this section.

(8) Classification of users:

Class 1: Those users whose average biochemical oxygen demand (BOD) is 250 milligrams per liter by weight or less, and whose suspended solids (SS) discharge is 250 milligrams per liter by weight or less. (C1)

Class 2: Those users whose average BOD exceeds 250 milligrams per liter concentration by weight and whose SS exceeds 250 milligrams per liter concentration. (C2)

(9) Determination of costs. The governing body shall establish monthly rates and charges for the use of the wastewater system and the services supplied by the wastewater system. These charges shall be based upon the cost categories described as operation, maintenance and replacement (OMR); interest (I); and, principal repayments or depreciation, whichever is greater (P).

(a) All users who fall under Class 1 shall pay a single unit charge expressed as dollars per 1000 gallons of water purchased with the unit charge being determined by the following formula:

$$C1 = OMR + I + P/\text{Total gallons treated (thousands)}$$

(b) All users who fall within the Class 2 classification shall pay the same base unit charge per 1,000 gallons of water purchased as for the Class 1 users and in addition shall pay a surcharge rate on the excessive amounts of biochemical oxygen demand (BOD) and suspended solids (SS) in direct proportion to the actual discharge quantities.

C2 = C1 plus the following formula for excessive strength:

$$[A(D-250) + B(E-250) + C(F-251)] \times .00834 \times G = \text{Surcharge Payment (\$/Mo.)}$$

The components of the formula are as follows:

A = Surcharge rate for BOD, in \$/pound.

B = Surcharge rate of SS, in \$/pound.

C = Surcharge rate for other pollutant(s) in \$/pound.

D = User's average SS concentration, in mg/l.

E = User's average SS concentration, in mg/l.

F = User's average other pollutants concentration, in mg/l.

G = User's monthly flow to sewage works, per 1,000 gallons.

No reduction in sewage service charges, fees, or taxes shall be permitted because of the fact that certain wastes discharged to the

sewage works contain less than 250 mg/l of BOD, 250 mg/l of SS or 25 mg/l of other pollutant(s).

(3) The volume of water purchased which is used in the calculation of wastewater use charges may be adjusted by the utilities manager if a user does not discharge it to the public sewers (i.e., filling swimming pools or industrial heating.) The user shall be responsible for documenting the quantity of wastewater actually discharged to the public sewer.

The mayor and board of commissioners will review the user charges annually along with the budget process and revise the rates as necessary to ensure that adequate revenues are generated to pay OMR, I and P. The periodic review shall also ensure that the system continues to provide for the proportional distribution of these costs among users and user classes.¹ (1994 Code, § 18-211)

18-212. Validity. This chapter and its provisions shall be valid for all service areas, regions, and sewage works under the jurisdiction of the City of South Pittsburg, Tennessee. (1994 Code, § 18-212)

18-213. Water distribution--system design. (1) Description of system layout. The layout of extensions of the South Pittsburg Board of Water Works System from a design concept, for convenience, will be the circle or belt system circumventing smaller crossover or gridiron systems.

(2) Pre-design conference. Before beginning a system extension design, the design engineer should first confer with the South Pittsburg Board of Water Works in regard to the growth potential and density that may be expected in the general area of the extension being planned. A conference with the South Pittsburg Board of Water Works staff should follow to discuss the system standards and requirements as well as any problems related to the mains being extended.

(3) Plans and specifications approval. (a) Detailed plans and specifications for a proposed extension must be submitted to the company for approval. Once approval has been obtained, the detailed plans and specifications must be submitted to the Tennessee Department of Health and Environment, Division of Water Supply, for approval.

(b) Each plan sheet shall bear an appropriate title block showing the name of the project, location, owner, engineer, date, scale in feet, true north where applicable, sheet number and revision date.

Each sheet shall contain a blank area at least 4 inches by 6 inches near the title block for imprinting the official "Approved for Construction" stamps of the Tennessee Department of Health and Environment and the

¹These rates are recorded in this title, chapter 3.

South Pittsburg Board of Water Works. Plans shall be clear and shall conform to the requirements of the South Pittsburg Board of Water Works Standards. Plans should be blue line, on sheets 24 inches by 36 inches.

(c) Plans of water mains: A plot plan of existing and proposed water mains shall be submitted for projects involving substantial additions to the existing water distribution system. The plan shall show the location and size of all proposed water mains. A vicinity map must accompany all water main extension plans.

(d) Detailed plans: Plans should have a scale of not more than 100 feet to the inch and must show:

(i) Locations of streets and water mains, size of mains, material and type of pipe.

(ii) All known existing structures both above and below ground which might interfere with the proposed construction, particularly sewer lines, gas mains, storm drains, etc.

(iii) No other utilities shall be drawn except for clarification or reference.

(4) Minimum distributor pipe size. (a) The minimum size pipe shall be 6 inch diameter. Two inch pipe will be permitted for serving cul-de-sacs having lengths of 300 feet or less, provided it has been determined by the South Pittsburg Board of Water Works that there will never be a future need for its extension.

(b) The size of pipe shall be justified by hydraulic analysis performed by an engineer who holds a valid license to practice in the State of Tennessee. Distributor pipes should be capable of providing a minimum flow of 450 gallons per minute except in cases of extending 2 inch pipes as provided under § 18-213(4)(a) of these standards. The distributor pipe, including any 2 inch pipes, shall be designed to maintain a minimum pressure of 20 psi at ground level at all points in the system under all conditions of flow.

(c) All assumptions and any flow data used by the design engineer must be clearly documented and submitted with the hydraulic calculations. If actual flow data are not available, theoretical calculations shall be based on all storage facilities being half-full and the appropriate Hazen and Williams friction factor shall be applied for the type pipe being used, but in no case shall such friction factor be greater than 130.

(d) Distributor pipes should be sized for an instantaneous peak demand of 750 gallons per minute except in cases where 2 inch pipe is used as provided for under § 18-213(4)(a) of these standards. When using 2 inch pipe, an instantaneous peak demand of 5 gallons per connection shall be assumed.

(5) Fire protection. (a) Fire hydrants should not be connected to distributor pipes which are not capable of providing a flow of 750 gallons per minute at a residual pressure of 30 psi.

(b) When fire protection is being provided, fire hydrants shall be located at points designated by the South Pittsburg Board of Water Works.

(c) The minimum pipe size to which a fire hydrant may be connected is 6 inch.

(6) Dead ends. (a) Dead ends shall be minimized.

(b) Where dead end distributor pipes occur, they should be provided with a fire hydrant when fire protection is being provided, or an approved blow-off assembly for flushing purposes.

(7) Gate valves. (a) Gate valves shall be placed at all intersections of distributor pipes. Two valves shall be placed at each tee; one installed in the run and the other installed in the branch. Three valves shall be placed at each cross. Valves should be positioned in the pipe line approximately 3 feet distance from the tee or cross.

(b) Valves at no time shall be placed greater than 3,000 feet apart unless otherwise specified by the South Pittsburg Board of Water Works.

(c) Valves shall be placed on lead-outs approximately 3 feet from fire hydrants except those having lead-outs to be connected to fire hydrant type tees, in which case, the valves may be connected to such fire hydrant tee.

(8) Bends. Bends in 6 inch pipe and greater shall be minimized. They should be placed in distributor pipes only in making necessary vertical or horizontal changes in pipe direction. (1994 Code, § 18-213)

18-214. Water distribution--details of design and construction of distributor mains. (1) Pipe support. Adequate support shall be provided for all pipes.

(2) Pipe bedding. A continuous and uniform bedding shall be provided in the trench for all buried pipe.

(3) Stones found in the trench shall be removed for a depth of at least six inches below the bottom of the pipe.

(4) All distributor mains shall be provided with sufficient earth or other suitable cover to prevent freezing and to provide protection to the pipe. The cover shall not be less than 36 inches for 6 inch and 8 inch pipe and 42 inches for 10 inch and 12 inch pipe measured above the top of the pipe.

(5) Pipe alignment. Alignment of pipe shall be installed as true as practical. When it becomes necessary to deflect pipe alignment, such deflection shall be limited to 5 degrees per pipe joint when using ductile iron pipe. The radius of curvature using 2-inch pvc pipe shall be limited to a minimum of 50 ft.

(6) Hydrostatic tests. (a) Pressure and leakage tests shall be performed in accordance with AWWA Standard C-600 and/or manufacturer's specific installation procedures.

(b) The test pressure of the installed pipe shall be a minimum of 150 psi or 1.5 times the working pressure, whichever is greater.

(c) Allowable leakage shall be no greater than as calculated in $L=ND P/7400$, where L is allowable leakage in gallons per hour, N is number of joints in the test section, D is the pipe diameter in inches, and P is the test pressure in psi.

(7) Disinfection of new distributor mains. The specifications shall include detailed procedures for the adequate flushing, disinfection, and (total coliform) bacteriological testing of all new mains. Disinfection as described in current AWWA Standard C-601 will be accepted.

(8) Disinfection when cutting into or repairing existing distributor mains. (a) Shall be performed when mains are wholly or partially dewatered.

(b) Shall follow current AWWA Standard C-601 procedures including trench treatment, swabbing with hypochlorite solution, flushing and/or slug chlorination as appropriate.

(c) Bacteriological testing should be done after repairs are complete, but the water line may be returned to service prior to completion of testing to minimize the time users are out of water.

(d) Leaks or breaks that are repaired with clamping devices while mains remain full of water under pressure require no disinfection.

(9) Means of detecting PVC pipe. When PVC pipe is installed, a minimum size 12 gauge copper wire or other acceptable means of detection shall be installed along the pipe.

(10) Separation of water mains and sewers. (a) General: The following factors should be considered in providing adequate separation:

(i) Materials and type of joints for water and sewer pipes.

(ii) Soil conditions.

(iii) Service and branch connections into the water main and the sewer line.

(iv) Compensating variations in the horizontal and vertical separations.

(v) Space for repair and alterations of water and sewer pipes.

(vi) Off-setting of pipes around manholes.

(vii) Water mains and sanitary or storm sewers shall not be laid in the same trench.

(b) Parallel installation:

(i) Normal conditions - Water mains shall be laid at least 10 feet horizontally from any sanitary sewer, storm sewer or sewer

manhole, whenever possible; the distance shall be measured edge-to-edge.

(ii) Unusual conditions - When local conditions prevent a horizontal separation of 10 feet, a water main may be laid closer to a storm or sanitary sewer provided that:

(A) The bottom of the water main is at least 18 inches above the top of the sewer;

(B) Where this vertical separation cannot be obtained, the sewer shall be constructed of materials and with joints that are equivalent to water main standards of construction and shall be pressure tested to assure watertightness prior to back filling.

(c) Crossings:

(i) Normal conditions - Water mains crossing house sewers, storm sewers, or sanitary sewers will be laid to provide a separation of at least 18 inches between the bottom of the water main and the top of the sewer whenever possible.

(ii) Unusual conditions - When local conditions prevent a vertical separation as described under § 18-214(10)(c)(i) of these standards, the following shall be used:

(A) Sewers passing over or under water mains should be constructed of the materials described in § 18-214(10)(b)(ii) of these standards.

(B) Water mains passing under sewers shall, in addition, be protected by providing a vertical separation of at least 18 inches between the bottom of the sewer and the top of the water main; adequate structural support for the sewers to prevent excessive deflection of joints and settling on and breaking the water mains; that the length of water pipe be centered at the point of crossing so that the joints will be equidistant as far as possible from the sewer. Both the sewer and the water main shall be constructed of waterpipe and tested in accordance with § 18-214(6) of these standards.

(d) Sewer manholes: No water pipe shall pass through or come into contact with any part of a sewer or sewer manhole.

(11) Surface water crossings. Surface water crossings, both under and over water, present special problems which should be discussed with the South Pittsburg Board of Water Works and Sewers and the Tennessee Department of Health and Environment, Division of Water Supply before plans are prepared.

(a) Above water crossings - The pipe shall be:

(i) Adequately supported;

(ii) Protected from damage and freezing;

(iii) Accessible for repairs and replacement.

(b) When crossing water courses which are greater than 15 ft. in width:

(i) The pipe shall be of special construction, having flexible, watertight joints;

(ii) Valves shall be provided at both ends of the water crossing so that the section can be isolated for test or repair, the valves shall be easily accessible and not subject to flooding;

(iii) Sampling taps should be available at each end of the crossing;

(iv) Permanent taps should be made for testing and locating leaks.

(12) Cross connections. (a) There shall be no physical connection between the distribution system and any pipes, pumps, hydrants, or tanks whereby unsafe water or other contaminating materials may be discharged or drawn into the system.

(b) The approval of the Tennessee Department of Health and Environment, Division of Water Supply, shall be obtained for interconnections between potable water supplies.

(c) Neither steam condensate nor cooling water from engine jackets or other heat exchange devices shall be returned to the potable water supply.

(13) Water services and plumbing. Water services and plumbing shall conform to the Standard Plumbing Code as may be revised and adopted from time to time by the South Pittsburg Board of Water Works and Sewers. (1994 Code, § 18-214)

18-215. Water distributions--products. (1) General. (a) Used water main pipe that meet these standards may be used again, after the pipe has been thoroughly cleaned and restored practically to its original condition.

(b) Packing and jointing materials used in the joints of pipe shall meet the standards of the American Water Works Association. Either mechanical joints or slip-on joints with rubber gaskets are required for pipe.

(2) Pipe. (a) Pipe shall meet latest requirements of AWWA Standard C-151, Class 50 thickness, cement-mortar lined meeting the latest requirements of AWWA Standard C-110, with either mechanical joints or slip-on joints with rubber gaskets. Ductile iron pipe shall be either American Cast Iron, U.S. Pipe, Griffin, McWane Pipe, or approved equal.

(b) PVC pipe two inches in diameter when permitted to be used under § 18-213(4)(a) of these standards, shall be SDR-21, Class 200 pressure rated and may be used where the working pressure does not exceed 145 psi. The pipe must meet the requirements set forth in ASTM Standard D-2241 for 2-inch through 12-inch pipe designated SDR-21.

The pipe must bear the Nation Sanitation Foundation Testing Laboratories, Inc. seal of approval for potable water or an approved equal.

(c) Pipe shall be bell-end type.

(d) Gaskets and lubricants intended for use with PVC pipe shall be made from materials that are compatible with the plastic material and with each other when used together, but will not support the growth of bacteria and will not adversely affect the potable qualities of the water that is to be transported. Gaskets shall be the elastomeric type and shall be manufactured to conform with the requirements of ASTM F-477.

(e) Solvent cemented joints in the field are not permitted.

(f) Pipe lengths shall be 20 feet.

(3) Tees, crosses and bends. (a) Tees, crosses, and bends for use with ductile iron pipe shall be cement-mortar lined, all mechanical joint.

(b) Tees, crosses, and bends for use with ductile iron pipe shall be either 250 psi pressure rating cast iron meeting the latest requirements of AWWA Standard C-110 or 350 psi pressure rating ductile iron meeting the latest requirements of AWWA Standard C-153.

(c) Tees, crosses, and bends for use with 2-inch PVC pipe shall be bell-type, factory welded and shall meet the requirements for bells of pipe as set forth in ASTM Standard D-2241 for 2-inch through 12-inch pipe designated SDR-21.

(d) Mechanical joint and plain end tees or bends meeting all other requirements of this standard will be permitted.

(e) Mechanical joint locked hydrant tees will be permitted for connecting to fire hydrant lead-outs.

(4) Reducers. (a) Reducers for use with ductile iron pipe shall be cement-mortar lined mechanical joint.

(b) Reducers for use with ductile iron pipe shall be either 250 psi rating cast iron meeting the latest requirements of AWWA Standard C-110 or 350 psi rating ductile iron meeting the latest requirements of AWWA Standard C-153.

(c) Mechanical joint and plain end reducers meeting all the requirements of this standard will be permitted.

(d) Reducers for transition from 6-inch or greater ductile iron pipe to 2-inch PVC pipe shall be accomplished by use of a mechanical joint or slip-on plug which has been provided with a 2-inch tap. A 2-inch bell and 2-inch NPT PVC transition fitting meeting the requirements as set forth in ASTM Standard D-2241 for 2-inch through 12-inch pipe designated SDR-21 connected to the tapped plug will effect an approved reduction. The 2-inch connection to 6-inch and greater ductile iron pipe shall be made only at branches of tees, crosses and at the ends of ductile iron pipe.

(5) Caps and plugs. (a) Caps and plugs for use with ductile iron pipe shall be mechanical joint except for slip-on type plugs which shall be

restrained type, with cast lugs and furnished with a minimum of four restraining cap screws.

(b) Mechanical joint caps and plugs shall be either 250 psi pressure rating cast iron meeting the latest requirements of AWWA Standard C-110, or 350 psi rating ductile iron meeting the latest requirements of AWWA Standard C-153.

(c) Caps for 2-inch PVC pipe may be effected by using a 2-inch galvanized NPT cap and a 2-inch PVC plain end and 2-inch NPT transition fitting meeting the requirements as set forth in ASTM Standard D-2241 for 2-inch through 12-inch pipe designated SDR-21.

(6) Sleeves. (a) Sleeves for use in connecting 6-inch and greater pipe shall be mechanical joint.

(b) Sleeves shall be 250 psi pressure rating cast iron meeting the latest requirements of AWWA Standard C-110 or 350 psi pressure rating ductile iron meeting the latest AWWA Standard C-153.

(7) Valves. (a) Gate valves six inches NPS and greater shall be mechanical joint, resilient-seat type, iron body, non-rising stem, "O"-ring, stem seal type, 2-inch operating nut, open counterclockwise.

(b) Gate valves six inches NPS and greater shall meet the latest requirements of AWWA Standard C-509.

(c) Gate valve pressure ratings shall be 200 psi.

(d) Gate valves six inches NPS and greater and meeting the latest requirement of AWWA Standard C-509 shall be either Mueller Company, Model A-2370; U.S. Pipe & Foundry Company, Model 5460; McWane Pipe and Foundry, Model F-6100; Clow Company, Model 5065; M&H Company, Model 3067-01; and American Cast Iron Company, American Darling, or any succeeding model numbers, or approved equal.

(e) Rubber-seated butterfly valves meeting the latest requirements of AWWA Standard C-504 will be acceptable for use on 8-inch or greater pipe. Rubber-seated butterfly valves shall open counterclockwise, furnished with a 2-inch operating nut, mechanical joint type, Class 150B.

(f) Shop drawings of butterfly valves must be submitted to the South Pittsburg Board of Water Works for approval.

(g) Valves for 2-inch PVC shall be gate valve type, bronze body, fully bronze mounted, tapped inside 2-inch NPT, open counterclockwise, equipped with operating hand well. 2" valves shall be Red and White, Catalog No. 298; Jenkins, Catalog No. 47-U; Hammond No. 1B62-9; Nibco Model No. T-134; Milwaukee Model No, or any succeeding model/catalog numbers.

(8) Valve boxes. Only valve boxes with PVC body and cast iron top will be permitted.

(9) Blow-off assemblies. (a) Blow-off assemblies for dead-end 2-inch PVC pipe may be effected by installing a 2-inch size flush type fire

hydrant equipped with one 2-1/1-inch hose nozzle having National Standard Hose Coupling threads, or the blow-off assemblies may be effected by other means approved by the South Pittsburg Board of Water Works. Hydrant bury shall be a minimum of 36 inches. Hydrant should have 2-inch NPT screwed in connection, minimum 150 psi working pressure, open counterclockwise, 1-1/1-inch pentagon operating nut. A cast iron housing shall be furnished with the blow-off hydrant which is equipped with a lock-down cast iron cover with the words "FIRE HYDRANT" embossed on its top surface. A shop drawing of the hydrant should be submitted to the South Pittsburg Board of Water Works for approval.

(b) A 2-inch gate valve meeting the requirements set forth under § 18-215(7)(g) of these standards shall be installed in the 2-inch PVC pipe approximately three feet from the blow-off hydrant.

(c) Blow-off assemblies for dead-end 6-inch and greater pipe located inside the City of South Pittsburg corporate limit shall be effected by the installation of a 3-way fire hydrant meeting the requirements under § 18-215(10) of these standards. A gate valve meeting the requirements under § 18-215(7) of these standards with a valve box meeting the requirements under § 18-215(8) of these standards shall be located approximately three feet from the installed blow-off hydrant.

(d) Blow-off assemblies for dead-end 6-inch and greater pipe located outside the City of South Pittsburg corporate limit may be effected by the installation of a 2-inch size flush type fire hydrant and a 2-inch gate valve meeting the requirements under § 18-215(9)(a) and § 18-215(9)(b), respectively, of these standards, or the blow-off assemblies may be effected by other means approved by the water quality control department.

(10) Fire hydrants. (a) Fire hydrant shall conform to the latest requirements of AWWA Standard C-502.

(b) Hydrant shall be equipped with two 2-1/2 inch hose outlet nozzles and one 4-1/2 inch pumper out nozzle.

(c) Nozzle thread shall conform with NFPA No. 194 for National Standard Fire Hose Coupling Screw Threads.

(d) Size of hydrant main valve shall be 5-1/4 inch nominal diameter.

(e) Size of hydrant inlet shall be 6-inch MI with one set of MJ accessories.

(f) Direction of rotation of the operating nut to open shall be counterclockwise.

(g) The operating nut shall be pentagonal in shape. The pentagon shall measure 1-1/2 inches from point to flat at the base of the nut and 1-7/16 inches at the top, and the height of the nut shall not be less than one-inch.

- (h) Color of the finish paint above the ground line shall be Red.
- (i) Hydrant shall be equipped with harnessing lugs.
- (j) Affidavit of Compliance shall be furnished for each hydrant.
- (k) Outlet nozzle-cap chains will not be required.
- (l) Hydrant shall be the Mueller Company, Centurion, Catalog No. A-423. The U.S. Pipe and Foundry Company Sentinel, or any acceptable revisions of these models.

(11) Thrust blocking. (a) Thrust forces are created in a pipeline at changes in direction, tees, dead-ends or where changes in pipe size occur at reducers. Acceptable restraint measures include concrete thrust blocks, restrained joints and tie rods. The details and dimensional data for concrete thrust blocks for 100 psi working pressure and soil bearing at 1000 pounds per square foot are given in the Water Quality Control Dept. Standard Drawing TB 1a and 1b. For greater pressures or less soil bearing capacity, the quantities required should be calculated.

(b) When iron tie rods are being used, all parts of such tie rods exposed to soil or weather shall be given a final coating with asphalt for protection. Tie rods shall not be less than nominal 3/4 inch in diameter.

(12) Tapping sleeves and valves. (a) Tapping sleeves shall be cast iron with mechanical joint ends rated for 200 psi working pressure. End gaskets shall be duct-tipped type. Tapping sleeves shall be appropriately sized for use on O.D. pipe to be tapped. Tapping sleeves should be provided with tapped bosses for testing purposes. Side flange bolts and pipe shall be of corrosive resistant material. Tapping sleeve shall be U.S. Pipe Company, type 9 mechanical joint cast iron with non-corrosive bolts and nuts, duct-tipped gaskets or approved equal.

(b) Tapping valves shall meet all requirements for gate valves under § 18-215(7) of these standards except flange valve inlets Class 125 and mechanical joint outlets shall be provided. Tapping valve shall be U.S. Pipe Company, Hydragate No. 6860, or approved equal, and any succeeding catalog number for same.

(13) Cut-in sleeves and valves. (a) Cut-in sleeves shall be cast iron mechanical joint and plain end, Class 200 pressure rated. Gaskets shall be duct-tipped. Mechanical joint gland shall be provided with set screws for bonding. Cut-in sleeves shall be Mueller Company H-842, or approved equal.

(b) Cut-in valves shall be cast iron mechanical joint for use in ductile iron and cast iron pipe. Gaskets shall be duct-tipped. All other requirements for gate valves under § 18-215(7) of these standards shall be met. Cut-in valves shall be Mueller Company H-862, or approved equal.

(14) Repair sleeves. (a) Repair sleeves used for repairing 6-inch and greater pipe may be either cast iron or ductile iron split type having appropriate pipe diameter range, mechanical joint ends, for 200 psi

working pressure, furnished with two duck-tipped end gaskets. Split repair sleeves shall be Mueller Company, Catalog No. H-785, or approved equal.

(b) Full circumferential stainless steel band-type couplings having appropriate pipe diameter range may be used for repairing 6-inch and greater pipe. Stainless steel band-type repair couplings must be capable of withstanding test pressures of 300 psi at a torque of 70 foot pounds for 5/8-inch bolts and 90 foot pounds for 3/4-inch bolts, equipped with malleable iron lugs meeting ASTM A-47 Grade 32510, or ductile iron per ASTM A-536, Grade 60-40-18, with supporting side fingers, furnished with Grade 30 specially compounded rubber of new materials with ingredients to produce superior storage characteristics, performance and resistance to set after installation, bolts of high strength low alloy steel with heavy hexagon nuts meeting the latest requirements of AWWA Standard C-111.

(c) Repair of 2-inch PVC pipe shall be accomplished by replacing damaged pipe using 2-inch PVC pipe and either PVC couplings meeting the requirements as set forth in ASTM Standard D-2241 for 2-inch through 12-inch pipe designated SDR-21, or compression couplings of iron having galvanized protection with rubber gaskets having 5-inch minimum length.

(15) Copper tubing for service lines. (a) Copper tubing shall be seamless, type K soft tempered.

(b) Copper tubing shall meet the requirements as set forth in ASTM Standard B-88 and AWWA Standard C-800 Appendix A for type K.

(c) Copper tubing shall be supplied in either 60-foot coils or 100-foot coils.

(d) Copper tubing sizes shall be limited to 3/4 inch nominal diameter and 1-inch nominal diameter.

(16) Corporation stops. (a) Corporation stops shall meet the latest requirements of AWWA Standard C-800.

(b) Corporation stop inlets shall have AWWA threads, and the outlet shall have tapered threads conforming to ANSI B2.1. Outlets shall have male ends sufficient to accommodate copper flare coupling nuts.

(c) Coupling nuts for use with flared type K copper service tubing shall meet the latest requirements of AWWA Standard C-800.

(d) Corporation stops shall be limited to size 3/4 inch and 1-inch.

(e) Corporation stops shall be Mueller Company, Catalog No. H-15000; The Ford Meter Box Company, Catalog No. F600, or approved equal, or any succeeding catalog numbers.

(17) Copper service unions. (a) Unions for copper service tubing shall be the copper service thread, three-part type meeting the latest

requirements of AWWA Standard C-800. The coupling nuts of the unions shall have copper service threads and shall meet the latest requirements of AWWA Standard C-800.

(b) Copper service unions shall be used when coupling copper service tubing.

(c) Three-part copper service unions shall be limited to size 3/4 inch, 1-inch, and 3/4 inch by 1-inch.

(18) Tapped saddles (for 2-inch PVC pipe). (a) Saddles shall be used in connecting 3/4 inch and 1-inch service taps to 2-inch PVC pipe.

(b) Saddles shall be of 85% copper and 5% each of tin, lead, and zinc.

(c) Saddles shall be double strap, two-part type. The upper and lower castings may be hinged together with a stainless steel pin. The screws connecting the upper and lower castings shall be of bronze. The lower casting shall be tapped to accept the screws. Saddles shall be designed to form hydraulic seal between the pipe and a rubber gasket to be furnished with each saddle.

(d) Outlets of saddles shall be tapped 3/4 inch or 1-inch iron pipe thread except when the water quality control department desires that a corporation stop be installed, in which case the saddle shall be tapped 3/4 inch or 1-inch AWWA thread.

(e) Saddles shall be designated to be satisfactory for use with water up to 100 psi in accordance to Section 3, General Design under the latest requirements of AWWA Standard C-800.

(f) Saddles shall be the Ford Meter Box Company, Inc. Catalog No. S71-203 for 3/4 inch iron pipe thread; S71-204 for 1 inch iron pipe thread; S70-203 for 3/4 inch AWWA thread; S70-204 for 1 inch AWWA thread, or approved equal, or succeeding catalog numbers covering same.

(19) Service fittings. (a) Adapters 1. Service fittings for use in 3/4 inch and 1-inch copper service tubing shall meet the latest requirements of AWWA Standard C-800.

(b) Adapters for use in 3/4 inch and 1-inch copper service tubing may be straight, quarter bend, or eighth bend.

(c) Adapter inlets shall be flared copper except for corporation stop adapters.

(d) Adapters having 3/4 inch inlets shall have either male or female iron pipe thread outlets of either 3/4 inch or 1-inch size.

(e) Adapters having 1-inch inlets shall have either male or female iron pipe thread outlets of 1-inch.

(f) Corporation stop adapters shall have inlet threads compatible with old type corporation stop threads. Outlets of corporation stop adapters shall be copper flare with copper service threads. Gaskets used with corporation stop adapters shall be copper. Corporation stop

adapters shall be used only for corporation stop sizes 5/8 inch, 3/4 inch and 1-inch.

(g) Threaded pipe nipples for use in setting 2-inch and greater meters shall be of nominally 85% copper and 5% each of tin, lead and zinc. Pipe nipple threads shall be NPT.

(i) Tees for copper service pipe shall be flared copper to copper. Sizes shall be limited to 3/4 inch and 1-inch. Tees may have combination of 3/4 inch and 1-inch branches and runs when deemed appropriate.

(ii) Brass plugs of either 5/8 inch, 3/4 inch or 1-inch size having AWWA threads shall be used to plug taps where corporation stops have been removed from service.

(20) Water meters. (a) Water meter sizes 5/8 inch and 1-inch:

(i) Shall be the displacement type.

(ii) Shall be the frost-proof type with cast iron bottom plate.

(iii) Casing shall be of copper alloy containing not less than 75 percent copper.

(iv) Register shall be the hermetically sealed magnetic type, straight reading, U.S. Gallons, with test hand.

(v) Shall meet the latest requirements of AWWA Standard C-700.

(vi) 5/8 inch meters shall be Badger Meter, Inc., Recordall, Model 25; Rockwell International 5/8 inch SR, and any succeeding model numbers or approved equal.

(vii) One inch meters shall be Badger Meter, Inc., Recordall, Model 40; Rockwell International, 1-inch SR, and any succeeding model numbers or approved equal.

(b) Water meter size 2-inch:

(i) Shall be the compound, single register magnetic flange type.

(ii) Casings shall be of copper alloy containing not less than 75 percent copper and shall be furnished with tapped boss for field testing purposes.

(iii) Shall be furnished with oval companion flanges of copper alloy containing not less than 75 percent copper, gaskets, bolts, and nuts. Thickness of oval flanges shall be as required for Class 125 round flanges.

(iv) Register shall be the hermetically sealed type, straight reading, U.S. Gallons, with test hand.

(v) Shall meet the latest requirements of AWWA Standard C-702.

(vi) Meters shall be Badger Meter, Inc., 2-inch compound; Rockwell International, 2-inch SRM compound, or approved equal.

(c) Shop drawings and performance data for water meters greater than 2-inch size shall be submitted to the Water Quality Control Department for approval. Flow demand, head loss, and range of user's expected flows will be considered by the Water Quality Control Department in making evaluation of such meters.

(21) Meter yokes (for 5/8 inch and 1-inch meters).

(a) Yokes shall be the riser type for brass thread & coupling.

(b) The inlet shall have an all bronze inverted key angle valve close-coupled to the yoke piece.

(c) The outlet shall have an all bronze all close-coupled to the yoke piece.

(d) The yoke piece shall be of cast iron, holding the inlet and outlet pipes, braced and correctly spaced.

(e) Yoke angle valves and ells shall be connected to the yoke piece such that they can be rotated to connect to piping below.

(f) A three-part expansion connection capable of being screwed on one end of the meter shall be furnished with each yoke. The expansion shall expand by turning a hand wheel to make water tight compression against rubber gaskets in the yoke ends.

(g) Yokes shall be used for all 5/8 inch and 1 inch meter settings.

(h) Yokes shall be the Ford Meter Box Company, Catalog No. 509, both ends flared copper for 5/8 inch meter settings and Catalog No. 512, both ends brass thread & coupling, for 1 inch meter settings, and Mueller Catalog No. H-5010 for 5/8 inch and 1-inch meter settings, or approved equal, and any succeeding catalog numbers.

(22) Meter boxes. (a) Meter boxes shall be constructed of two part cast iron. Inside dimensions must be 18 X 9 1/4. Lid shall have lifting holes and have the word "WATER" engraved. Boxes shall be Acheson V-8400 or equivalent.

(b) Meter boxes for 1 inch meter settings for non-traffic conditions shall be the two-part rectangular concrete type having minimum inside dimensions of 10 inches by 17 inches. The cover shall be rectangular of concrete furnished with a cast iron hinged reader lift having minimum dimensions of 4 inches by 7 inches provided with a keyhole for lifting.

(c) The minimum depth of combined two-part meter box sections for setting 5/8 inch and 1 inch meters shall be 18 inches.

(d) Meter box upper sections shall be designed with recesses for receiving covers. Covers and upper meter box sections shall be designed for easy cover removal and such that cover top surface when set will be flush with that of the upper meter box section rim.

(e) Meter boxes for 2-inch meter setting shall be the three-part rectangular concrete type having a combined minimum depth of 36 inches

and minimum inside dimensions of 15 inches by 26 inches. Covers shall be the two-part cast iron type and shall be furnished with embossed tread markings and the word "WATER" on the top surface and shall be provided with a keyhole or other easy means for lifting cover sections. Meter boxes and covers shall be capable of supporting minimum wheel loads of 16,000 pounds.

(f) Meters greater than 2-inch size shall be set in vaults. Drawings of the proposed vaults shall be submitted to the Water Quality Control Department for approval. Vaults in general shall be of poured in place reinforced concrete or of masonry construction having a minimum depth of 36 inches. The cover may be of reinforced concrete provided with any easy means for reading and removal of the meter and/or appurtenances. Factory type covers will be considered by the Water Quality Control Department.

(h) Meter boxes shall be as follows or approved equal:

(i) For 5/8 inch traffic settings-Brooks Products, Inc. Catalog No. 36T, (or any succeeding catalog numbers), two-section effecting 18 inches combined depth, with cast iron cover.

(ii) For 1-inch meter traffic settings-Brooks Products, Inc. Catalog No. 37T, (or any succeeding catalog numbers), two-section effecting 18 inches combined depth, all cast iron cover.

(iii) For 2-inch meter settings-Brooks Products, Inc. Catalog No. 65T, (or any succeeding catalog numbers), three section effecting 36 inches combined depth, two-part cast iron cover. (1994 Code, § 18-215)

18-216. Water distribution--execution. (1) Preparation.

(a) Precautions and permit to excavate:

(i) Notify utility companies to locate existing facilities.

(ii) Abide by their requirements when repairing, replacing or disturbing existing facilities.

(iii) Prior to trench excavation being performed within any City of South Pittsburg public right-of-way, including public alleys, a permit shall be obtained from the city hall to perform such excavation. The trench backfill and street repair shall be made in accordance with the specifications prepared by the city as required by this chapter.

(b) Protect all vegetation and other features to remain.

(c) Protect all survey points.

(d) Trench excavation:

(i) Perform in such a manner as to form a suitable trench in which to place the pipe and so as to cause the least inconvenience to the public.

(ii) Maximum width at the crown of the pipe should be 2 feet plus the nominal diameter of the pipe.

(iii) Cut pavements along neat, straight lines with either a pavement breaker or pavement saw.

(iv) Trench depth shall be sufficient to provide a minimum cover in accordance with § 18-214(4) of these standards.

(v) Align trench as shown on the plans and in accordance with § 18-214(5) of these standards.

(vi) Shape the bottom of the trench to provide uniform bearing of the pipe on undisturbed earth throughout its entire length. Dig bell holes to aid in securing uniform support of the pipe.

(vii) When unstable soil is encountered at the trench bottom, remove it to a depth required to assure support of the pipeline and backfill to the proper grade with AASHTO M-43, Size 3 or 4 course aggregate.

(viii) Remove rock encountered in the trench excavation to a depth of 6 inches below the bottom of the pipe barrel, backfill with suitable earth, and compact to uniformly support the pipe.

(e) Sheeting, shoring and bracing: When necessary or when directed by the engineer, put in place and maintain sheeting, bracing, etc., as may be required to support the sides of the excavation and to prevent movement. Remove all sheeting, shoring and bracing after backfill has been placed to a depth of 18 inches over the pipeline.

(f) Before placing pipe in the trench, field inspect for cracks or other defects. Remove defective pipe from the construction site.

(g) Swab the interior of the pipe to remove all undesirable material.

(h) Prepare the bell end and remove undesirable material from the gasket and gasket recess.

(2) Installing distributor pipes. (a) Lay all pipe in a straight line on a uniform grade and in accordance with § 18-214(5) of these standards.

(b) After applying gasket lubricant, extreme care should be taken to keep the spigot end from contacting the ground.

(c) Hone the pipe with suitable tools or equipment.

(d) The manufacturer's instruction for laying and joining pipe should be followed.

(e) Cut pipe for installing valves, fittings, etc., in a neat and workmanlike manner without damaging the pipe so as to leave a smooth end at right angles to the axis of the pipe.

(f) Locate waterlines in relation to other piped utilities in accordance with § 18-214(10) of these standards.

(3) Installing appurtenances. (a) Securely plug open ends of pipe at the close of each work day and during temporary discontinuance of pipe laying.

(b) Set all valves, fittings, fire hydrants, and other specials in a neat workmanlike manner.

(c) Use thrust blocks, restrained joints, and tie rods in accordance with § 18-215(11) of these standards.

(d) Erect fire hydrants to stand plumb with the pumper nozzle facing the street or in a direction as may be directed by the South Pittsburg Board of Water Works.

(e) Effect drainage of fire hydrants by using a minimum of 6 cubic feet of Size No. 2 or No. 3 crushed stone.

(f) Close dead ends with caps or plugs meeting the requirements of these standards and equip with blow-off assemblies, where shown on the drawings, in accordance with § 18-215(9) of these standards.

(4) Installing water lines in street, highway, and railroad rights-of-way. (a) Permits as may be required for crossing streets, highways, and railroads and performing other work within their rights-of-way shall be obtained from the appropriate authorities.

(b) Boring and jacking methods shall be approved by the South Pittsburg Board of Water Works.

(5) Water line pressure tests. (a) After the pipe has been laid, subject all newly laid pipe or any valved section thereof, to a hydrostatic pressure of at least 150 psi or 1.5 times the working pressure whichever is greater.

(b) Test pressure shall:

(i) Not exceed the pipe or thrust restraint design pressures.

(ii) Be of at least 2-hour duration.

(iii) Not vary by more than plus or minus 5 psi.

(iv) Not exceed twice the rated pressure of closed valves or fire hydrants included in the test section.

(v) Not exceed the rated pressure of resilient seated butterfly valves.

(c) Pressurization:

(i) Slowly fill each valved section of pipe with water.

(ii) Apply the specified test pressure, based on the elevation of the lowest point of the line or section under test, and correct to the elevation of the test gauge by means of a pump connected to the pipe.

(d) Air removal:

(i) Before applying the specified test pressure, expel air completely from the pipe, valves, and hydrants.

(ii) If permanent air vents are not located at all high points, install corporation stops at such points to expel air as the line is filled with water.

(iii) After all the air has been expelled, close the corporation stops and apply the test pressure.

(iv) At the conclusion of the pressure test, remove the corporation stops and plug or leave in place at the discretion of the Water Quality Control Department.

(e) Examination:

(i) Carefully examine all exposed pipe, fittings, valves, or hydrants that are discovered with sound material and repeat the test until it is satisfactory to the South Pittsburg Board of Water Works.

(6) Waterline leakage tests. (a) Concurrently conduct a leakage test with the pressure test.

(b) Leakage defined: The quantity of water that must be supplied into the newly laid pipe to maintain the specified test pressure after the air in the pipeline has been expelled and the pipe has been filled with water.

(c) Allowable leakage:

(i) Allowable leakage shall be determined in accordance with § 18-214(6) of these standards.

(ii) When testing against closed metal-seated valves, an additional leakage per closed valve of 0.078 gal/hr/in. of nominal size shall be allowed.

(iii) When hydrants are in the test section, test against the closed hydrant.

(7) Acceptance of installation. (a) If any test of pipe laid discloses leakage greater than that determined under § 18-216(6) of these standards, locate and repair the defective material until the leakage is equal to or less than the determined amount allowable.

(b) Repair all visible leaks regardless of the amount of leakage.

(8) Cleaning and disinfection of water lines. (a) Flush waterlines clean prior to disinfection.

(b) Thoroughly disinfect waterlines prior to placing in service.

(i) Use chlorine disinfecting agent applied to produce a 50 ppm dosage.

(ii) Allow water to escape from the ends of all lines to cause dispersion of the chlorine solution into all parts of the system.

(iii) Operate all valves and fire hydrants during the time disinfection is occurring.

(iv) Retain the chlorine solution in the lines for a period of 24 hours.

(v) At the end of the 24-hour period, the residual chlorine must be a minimum of 25 ppm. Otherwise, repeat the disinfection procedure again.

(vi) Upon refilling the lines, collect a sample for bacteriological analysis. If the same is acceptable, the lines may be connected to the system. Otherwise, repeat the disinfection procedure until acceptable samples are obtained.

(9) Water service line connections. (a) Tap water mains in the upper half of the pipe at a 4 degree angle.

(b) Do not exceed a size 1-inch tap.

(c) Maintain a distance of at least 24 inches between taps, measured along the axis of the water main.

(d) Used tapped saddles for all taps on PVC mains.

(e) Service line and meter setting sizes shall be at the discretion of the South Pittsburg Board of Water Works.

(f) Service lines shall be installed by the water company from the water mains to the edges of the street right-of-way lines or to the edges of easements provided for such water mains.

(g) Meter settings locations shall be at the discretion of the South Pittsburg Board of Water Works. (1994 Code, § 18-216)

18-217. Water distribution—standards flexibility.

(1) Interpretations of these standards and design criteria. Interpretations of these standards and design criteria or the determination of any other company standards and design criteria not covered under these standards shall be at the discretion of the South Pittsburg Board of Water Works. The decision shall be based on past practices, traditional policies, widely accepted professional principles and practices of the industry.

(2) Right of appeal. Any disagreement with the interpretations or determinations made by the company with respect to these standards or any other standards not covered herein may be appealed to the South Pittsburg Board of Water Works. (1994 Code, § 18-217)

18-218. Grease trap required. Restaurants, laundries, wash racks, vehicle service stations, private multi-user systems, engine or machinery repair shops, and other facilities that produce grease, grit, oil, lint, or other materials which accumulate and cause or threaten to cause stoppages or impair the efficiency of the city's sewers or threaten the safety of its employees, shall install and maintain a grease trap, grit trap, lint trap, oil interceptor, or other appropriate device of standard design and construction to prevent excess discharges of such materials. The design and construction of any such device shall be subject to prior approval of the superintendent of the city's sewer system or the city's building inspector, and said device shall be constructed in accordance with applicable building codes. (1994 Code, § 18-218)

18-219. Compliance. All sewer users currently in existence who are or maybe affected by the provisions of sections 18-218 through 18-222 shall have one (1) year from the date of final passage¹ of these sections within which to bring their sewer connections into compliance with these sections, said users to bear the costs of said compliance. Failure to so comply will subject the user's right of access to the city's sewer system to termination, at the discretion of the board of mayor and commissioners, as well as to any other penalties prescribed in these sections. (1994 Code, § 18-219)

18-220. Inspections. There shall be conducted a quarterly inspection of all grease traps, lint traps, grit traps, oil traps, oil interceptors, and other similar devices by the building inspector of the City of South Pittsburg, Tennessee, or such other appropriate official that said city may designate. Additionally, such other, more frequent inspections of said devices may be conducted by said building inspector or other appropriate official as necessary. All users subject to said inspection shall voluntarily allow access to their systems by said inspectors and shall comply with all orders of said inspectors regarding maintenance of said devices. (1994 Code, § 18-220)

18-221. Maintenance of device. It shall be the sole responsibility of all users affected by §§ 18-218 through 18-222 to see that their respective devices are pumped yearly or otherwise maintained regularly and at least annually so as to prevent problems due to overflow or blockages caused by failure of said user to properly pump and/or otherwise maintain said device. Failure to so pump and/or maintain said device as prescribed herein shall be deemed a violation of these sections. (1994 Code, § 18-221)

18-222. Violation and penalty. Failure to comply with the provisions of these sections shall be deemed a violation of said and, upon conviction, violators shall be subject to a fine not to exceed fifty dollars (\$50.00) and/or the discontinuance of sewer services to said violator. Each separate act of noncompliance with these sections shall be deemed a separate offense for purposes of this section. (1994 Code, § 18-222)

¹These provisions were taken from Ord. #544 which passed 3rd reading May 10, 1994.

CHAPTER 3**SUPPLEMENTARY SEWER REGULATIONS¹****SECTION**

- 18-301. Definitions.
- 18-302. Use of public sewers required.
- 18-303. Private sewage disposal.
- 18-304. Building sewers and connections.
- 18-305. Use of the public sewers.
- 18-306. Protection from damage.
- 18-307. Powers and authority of inspectors.
- 18-308. Violations.

18-301. Definitions. Unless the context specifically indicates otherwise, the meaning of terms used in this chapter shall be as follows:

(1) "BOD" (denoting Biochemical Oxygen Demand) shall mean the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure in five (5) days at 20° C. expressed in milligrams per liter.

(2) "Building drain" shall mean that part of the lowest horizontal piping of a drainage system which receives the discharge from soil, waste, and other drainage pipes inside the walls of the building and conveys it to the building sewer, beginning five (5) feet (1.5 meters) outside the inner face of the building wall.

(3) "Building sewer" shall mean the extension from the building drain to the public sewer or other place of disposal.

(4) "Combined sewer" shall mean a sewer receiving both surface runoff and sewage.

(5) "Garbage" shall mean solid wastes from the domestic and commercial preparation, cooking, and dispensing of food, and from the handling, storage, and sale of produce.

(6) "Industrial wastes" shall mean the liquid wastes from industrial manufacturing processes, trade, and business as distinct from sanitary sewage.

(7) "Natural outlet" shall mean any outlet into a watercourse, pond, ditch, lake, or other body of surface or groundwater.

¹The regulations in this chapter are recommended to cities by the Tennessee Department of Health and Environment, Division of Sanitary Engineering.

Municipal code reference

Building, utility and housing codes: title 12.

- (8) "Person" shall mean any individual, firm, company, association, society, corporation, or group.
- (9) "Ph" shall mean the logarithm of the reciprocal of the weight of hydrogen ions in grams per liter of solution.
- (10) "Properly shredded garbage" shall mean the wastes from the preparation, cooking, and dispensing of food that have been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than one-half ($\frac{1}{2}$) inch (1.27 centimeters) in any dimension.
- (11) "Public sewer" shall mean a sewer in which all owners of abutting properties have equal rights, and is controlled by public authority.
- (12) "Sanitary sewer" shall mean a sewer which carries sewage and to which storm, surface, and groundwaters are not intentionally admitted.
- (13) "Sewage" shall mean a combination of the watercarried wastes from residences, business buildings, institutions, and industrial establishments, together with such ground, surface, and stormwaters as may be present.
- (14) "Sewage treatment plant" shall mean any arrangement of devices and structures used for treating sewage.
- (15) "Sewage works" shall mean all facilities for collecting, pumping, treating, and disposing of sewage.
- (16) "Sewer" shall mean a pipe or conduit for carrying sewage.
- (17) "Shall" is mandatory; "may" is permissive.
- (18) "Slug" shall mean any discharge of water, sewage, or industrial waste which in concentration of any given constituent or in quantity of flow exceeds for any period of duration longer than fifteen (15) minutes more than five (5) times the average twenty-four (24) hour concentration or flows during normal operation.
- (19) "Storm drain" (sometimes termed "storm sewer") shall mean a sewer which carries storm and surface waters and drainage, but excludes sewage and industrial wastes, other than unpolluted cooling water.
- (20) "Superintendent" shall mean the superintendent of sewage works and/or of water pollution control of the municipality, or his authorized deputy, agent, or representative.
- (21) "Suspended solids" shall mean solids that are in suspension in water, sewage, or other liquids, and which are removable by laboratory filtering.
- (22) "Watercourse" shall mean a channel in which a flow of water occurs, either continuously or intermittently. (1994 Code, § 18-301)

18-302. Use of public sewers required. (1) It shall be unlawful for any person to place, deposit, or permit to be deposited in any unsanitary manner on public or private property within the municipality, or in any area under its jurisdiction, any human or animal excrement, garbage, or other objectionable waste.

(2) It shall be unlawful to discharge to any natural outlet within the municipality, or in any area under its jurisdiction, any sewage or other polluted waters, except where suitable treatment has been provided in accordance with subsequent provisions of this chapter.

(3) Except as hereinafter provided, it shall be unlawful to construct or maintain any privy, privy vault, septic tank, cesspool, or other facility intended or used for the disposal of sewage.

(4) The owner of all houses, buildings, or properties used for human occupancy, employment, recreation, or other purposes, situated within the municipality and abutting on any street, alley, or right-of-way in which there is now located or may in the future be located a public sanitary or combined sewer of the municipality, is hereby required at his expense to install suitable toilet facilities therein, and to connect such facilities directly with the proper public sewer in accordance with the provisions of this chapter, within ninety (90) days after date of official notice to do so, provided that said public sewer is within two hundred (200) feet of the property line. (1994 Code, § 18-302)

18-303. Private sewage disposal. The disposal of sewage by means other than the use of the sanitary sewage system shall be in accordance with local and state laws. The disposal of sewage by private disposal systems shall be permissible only in those instances where service from the sanitary sewage system is not available. (1994 Code, § 18-303)

18-304. Building sewers and connections. (1) No unauthorized person shall uncover, make any connections with or opening into, use, alter, or disturb any public sewer or appurtenance thereof without first obtaining a written permit from the superintendent.

(2) There shall be two (2) classes of building sewer permits:

(a) for residential and commercial service, and

(b) for service to establishments producing industrial wastes.

In either case, the owner or his agent shall make application on a special form furnished by the municipality. The permit application shall be supplemented by any plans, specifications, or other information considered pertinent in the judgment of the superintendent.

(3) All costs and expenses incident to the installation and connection of the building sewer shall be borne by the owner. The owner shall indemnify the municipality from any loss or damage that may directly or indirectly be occasioned by the installation of the building sewer.

(4) A separate and independent building sewer shall be provided for every building; except where one building stands at the rear of another on an interior lot and no private sewer is available or can be constructed to the rear building through an adjoining alley, court, yard, or driveway, the building sewer from the front building may be extended to the rear building and the whole considered as one building sewer.

(5) Old building sewers may be used in connection with new buildings only when they are found, on examination and test, by the superintendent to meet all requirements of this chapter.

(6) The size, slope, alignment, materials or construction of a building sewer, and the methods to be used in excavating, placing of the pipe, jointing, testing, and backfilling the trench, shall all conform to the requirements of the building and plumbing code or other applicable rules and regulations of the municipality. In the absence of code provisions or in amplification thereof, the materials and procedures set forth in appropriate specifications of the A.S.T.M. and W.P.C.F. Manual of Practice No. 9 shall apply.

(7) Whenever possible, the building sewer shall be brought to the building at an elevation below the basement floor. In all buildings in which any building drain is too low to permit gravity flow to the public sewer, sanitary sewage carried by such building drain shall be lifted by an approved means and discharged to the building sewer.

(8) No person shall make connection of roof downspouts, exterior foundation drains, areaway drains, or other sources of surface runoff or groundwater to a building sewer or building drain which in turn is connected directly or indirectly to a public sanitary sewer.

(9) The connection of the building sewer into the public sewer shall conform to the requirements of the building and plumbing code or other applicable rules and regulations of the municipality, or the procedures set forth in appropriate specifications of the A.S.T.M. and the W.P.C.F. Manual of Practice No. 9. All such connections shall be made gastight and watertight. Any deviation from the prescribed procedures and materials must be approved by the superintendent before installation.

(10) The applicant for the building sewer permit shall notify the superintendent when the building sewer is ready for inspection and connection to the public sewer. The connection shall be made under the supervision of the superintendent or his representative.

(11) All excavations for building sewer installations shall be adequately guarded with barricades and lights so as to protect the public from hazard. Streets, sidewalks, parkways, and other public property disturbed in the course of the work shall be restored in a manner satisfactory to the municipality. (1994 Code, § 18-304)

18-305. Use of the public sewers. (1) No person shall discharge or cause to be discharged any stormwater, surface water, groundwater, roof runoff, subsurface drainage, uncontaminated cooling water, or unpolluted industrial process waters to any sanitary sewer.

(2) Stormwater and all other unpolluted drainage shall be discharged to such sewers as are specifically designated as storm sewers, or to a natural outlet approved by the Tennessee Stream Pollution Control Board. Industrial cooling water or unpolluted process waters may be discharged, on approval of

the Tennessee Stream Pollution Control Board, to a storm sewer, or natural outlet.

(3) No person shall discharge or cause to be discharged any of the following described waters or wastes to any public sewers:

(a) Any gasoline, benzene, naphtha, fuel oil, or other flammable or explosive liquid, solid, or gas.

(b) Any waters or wastes containing toxic or poisonous solids, liquids, or gases in sufficient quantity, either singly or by interaction with other wastes, to injure or interfere with any sewage treatment process, constitute a hazard to humans or animals, create a public nuisance, or create any hazard in the receiving waters of the sewage treatment plant.

(c) Any waters or wastes having a pH lower than 5.5, or having any other corrosive property capable of causing damage or hazard to structures, equipment, and personnel of the sewage works.

(d) Solid or viscous substances in quantities or of such size capable of causing obstruction to the flow in sewers, or other interference with the proper operation of the sewage works such as, but not limited to, ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, unground garbage, whole blood, paunch manure, hair and fleshings, entrails and paper dishes, cups, milk containers, etc. either whole or ground by garbage grinders.

(4) No person shall discharge or cause to be discharged the following described substances, materials, waters, or wastes if it appears likely in the opinion of the superintendent that such wastes can harm either the sewers, sewage treatment process, or equipment, have an adverse effect on the receiving stream, or can otherwise endanger life, limb, public property, or constitute a nuisance. In forming his opinion as to the acceptability of these wastes, the superintendent will give consideration to such factors as the quantities of subject wastes in relation to flows and velocities in the sewers, materials of construction of the sewers, nature of the sewage treatment process, capacity of the sewage treatment plant, degree of treatability of wastes in the sewage treatment plant, and other pertinent factors. The substances prohibited are:

(a) Any liquid or vapor having a temperature higher than one hundred fifty (150)° F (65° C).

(b) Any water or waste containing fats, wax, grease, or oils, whether emulsified or not, in excess of one hundred (100) mg/l or containing substances which may solidify or become viscous at temperatures between thirty-two (32) and one hundred fifty (150)° F. (0 and 65°C).

(c) Any garbage that has not been properly shredded. The installation and operation of any garbage grinder equipped with a motor of three-fourths (3/4) horsepower (0.76 hp metric) or greater shall be subject to the review and approval of the superintendent.

(d) Any waters or wastes containing strong acid iron pickling wastes, or concentrated plating solutions whether neutralized or not.

(e) Any waters or wastes containing iron, chromium, copper, zinc, cyanide, and similar objectionable or toxic substances; or wastes exerting an excessive chlorine requirement, to such degree that any such material received in the composite sewage at the sewage treatment works exceeds the limits established by the superintendent and/or the Division of Sanitary Engineering, Tennessee Department of Health and Environment, for such materials.

(f) Any waters or wastes containing phenols or other taste- or odor-producing substances, in such concentrations exceeding limits which may be established by the superintendent as necessary, after treatment of the composite sewage, to meet the requirements of the state, federal, or other public agencies of jurisdiction for such discharge to the receiving waters.

(g) Any radioactive wastes or isotopes of such halflife or concentration as may exceed limits established by the superintendent in compliance with applicable state or federal regulations.

(h) Any waters or wastes having a pH in excess of 9.5.

(i) Materials which exert or cause:

(1) Unusual concentrations of inert suspended solids (such as, but not limited to, Fullers earth, lime slurries, and lime residues) or of dissolved solids (such as, but not limited to, sodium chloride and sodium sulfate).

(2) Excessive discoloration (such as, but not limited to, dye wastes and vegetable tanning solutions).

(3) Unusual BOD (above 200 mg/l), chemical oxygen demand, (above 325 mg/l), or chlorine requirement in such quantities as to constitute a significant load on the sewage treatment works.

(4) Unusual volume of flow or concentration of wastes constituting "slugs" and defined herein.

(j) Waters or wastes containing substances which are not amenable to treatment or reduction by the sewage treatment processes employed, or are amenable to treatment only to such degree that the sewage treatment plant effluent cannot meet the requirements of other agencies having jurisdiction over discharge to the receiving waters.

(k) Waters or wastes containing suspended solids in excess of 200 mg/l.

(5) If any waters or wastes are discharged, or are proposed to be discharged to the public sewers, which waters contain the substances or possess the characteristics enumerated in subsection (4) of this section, and which in the judgment of the superintendent, and/or the Division of Sanitary Engineering, Tennessee Department of Health and Environment, may have a deleterious

effect upon the sewage works, processes, equipment, or receiving waters, or which otherwise create a hazard to life or constitute a public nuisance, the superintendent may:

- (a) Reject the wastes,
- (b) Require pretreatment to an acceptable condition for discharge to the public sewers,
- (c) Require control over the quantities and rates of discharge, and/or
- (d) Require payment to cover the added cost of handling and treating the wastes not covered by existing taxes or sewer charges under the provisions of subsection (10) of this section.

If the superintendent permits the pretreatment or equalization of waste flows, the design and installation of the plants and equipment shall be subject to the review and approval of the superintendent, and the Tennessee Department of Health and Environment, and subject to the requirements of all applicable codes, ordinances, and laws.

(6) Grease, oil, and sand interceptors shall be provided when, in the opinion of the superintendent, they are necessary for the proper handling of liquid wastes containing grease in excessive amounts, or any flammable wastes, sand, or other harmful ingredients; except that such interceptors shall not be required for private living quarters or dwelling units. All interceptors shall be of a type and capacity approved by the superintendent, and shall be so located as to be readily and easily accessible for cleaning and inspection.

(7) Where preliminary treatment or flow-equalizing facilities are provided for any waters or wastes, they shall be maintained continuously in satisfactory and effective operation by the owner at his expense.

(8) When required by the superintendent, the owner of any property serviced by a building sewer carrying industrial wastes shall install a suitable control manhole together with such necessary meters and other appurtenances in the building sewer to facilitate observation, sampling, and measurement of the wastes. Such manhole, when required, shall be accessibly and safely located, and shall be constructed in accordance with plans approved by the superintendent. The manhole shall be installed by the owner at his expense, and shall be maintained by him so as to be safe and accessible at all times.

(9) All measurements, tests, and analyses of the characteristics of waters and wastes to which reference is made in this chapter shall be determined in accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater," published by the American Public Health Association and shall be determined at the control manhole provided, or upon suitable samples taken at said control manhole. In the event that no special manhole has been required, the control manhole shall be considered to be the nearest downstream manhole in the public sewer to the point at which the building sewer is connected. Sampling shall be carried out by customarily accepted methods to reflect the effect of constituents upon the sewage works and

to determine the existence of hazards of life, limb, and property. (The particular analyses involved will determine whether a twenty-four (24) hour composite of all outfalls of a premise is appropriate or whether a grab sample or samples should be taken. Normally, but not always, BOD and suspended solids analyses are obtained from 24-hr. composites of all outfalls whereas pH's are determined from periodic grab samples.)

(10) No statement contained in this section shall be construed as preventing any special agreement or arrangement between the municipality and any industrial concern whereby an industrial waste of unusual strength or character may be accepted by the municipality for treatment, subject to payment therefor, by the industrial concern.

(11) Payment by any industrial concern (person) shall be at the same rate as that for all other persons using the sewage works; that is, a flat rate per 1,000 gallons of water purchased. The flat rate shall be redetermined each fiscal year, depending on the operating expenses of the sewage works. In addition to the flat rate per 1,000 gallons of water purchased, an excess strength surcharge shall be imposed on any person whose sewage strength characteristics exceed those in this chapter. The amount of the excess strength surcharge shall be redetermined each fiscal year. Similar excess strength surcharges may be imposed on other characteristics by the superintendent if the strength of said characteristics are determined to be excessive to the extent that they may have a deleterious effect upon the sewage works, processes, equipment, or receiving waters, or which otherwise create a hazard to life or constitute a public nuisance. (1994 Code, § 18-305)

18-306. Protection from damage. No unauthorized person shall maliciously, wilfully, or negligently break, damage, destroy, uncover, deface, or tamper with any structure, appurtenance, or equipment which is a part of the sewage works. Any person violating this provision shall be subject to immediate arrest under charge of disorderly conduct. (1994 Code, § 18-306)

18-307. Powers and authority of inspectors. (1) The superintendent and other duly authorized employees of the municipality bearing proper credentials and identification shall be permitted to enter all properties for the purposes of inspection, observation, measurement, sampling, and testing in accordance with the provisions of this chapter. The superintendent or his representatives shall have no authority to inquire into any processes including metallurgical, chemical, oil, refining, ceramic, paper, or other industries beyond that point having a direct bearing on the kind and source of discharge to the sewers or waterways or facilities for waste treatment.

(2) While performing the necessary work on private properties referred to in subsection (1) of this section, the superintendent or duly authorized employees of the municipality shall observe all safety rules applicable to the premises established by the company and the company shall be held harmless

for injury or death to the municipal employees and the municipality shall indemnify the company against loss or damage to its property by municipal employees and against liability claims and demands for personal injury or property damage asserted against the company and growing out of the gauging and sampling operation, except as such may be caused by negligence or failure of the company to maintain safe conditions as required in § 18-305(8).

(3) The superintendent and other duly authorized employees of the municipality bearing proper credentials and identification shall be permitted to enter all private properties through which the municipality holds a duly negotiated easement for the purposes of, but not limited to, inspection, observation, measurement, sampling, repair, and maintenance of any portion of the sewage works lying within said easement. All entry and subsequent work, if any, on said easement, shall be done in full accordance with the terms of the duly negotiated easement pertaining to the private property involved. (1994 Code, § 18-307)

18-308. Violations. (1) Any person found to be violating any provision of this chapter except § 18-308 shall be served by the municipality with written notice stating the nature of the violation and providing a reasonable time limit for the satisfactory correction thereof. The offender shall, within the period of time stated in such notice, permanently cease all violations.

(2) Any person who shall continue any violation beyond the time limit provided for in subsection (1) of this section shall be guilty of a misdemeanor, and on conviction thereof shall be fined under the general penalty clause for this municipal code of ordinances.

(3) Any person violating any of the provisions of this chapter shall become liable to the municipality for any expense, loss, or damage occasioned the municipality by reason of such violation. (1994 Code, § 18-308)

CHAPTER 4**CROSS CONNECTIONS, AUXILIARY INTAKES, ETC.**¹**SECTION**

- 18-401. Definitions.
- 18-402. Standards.
- 18-403. Construction, operation, and supervision.
- 18-404. Statement required.
- 18-405. Inspections required.
- 18-406. Right of entry for inspections.
- 18-407. Correction of existing violations.
- 18-408. Use of protective devices.
- 18-409. Unpotable water to be labeled.
- 18-410. Violations.
- 18-411. Location of premises served.

18-401. Definitions. The following definitions and terms shall apply in the interpretation and enforcement of this chapter:

(1) "Public water supply." The waterworks system furnishing water to the City of South Pittsburg, Tennessee for general use and which supply is recognized as the public water supply by the Tennessee Department of Health and Environment.

(2) "Cross-connection." Any physical connection whereby the public water supply is connected with any other water supply system, whether public or private, either inside or outside of any building or buildings, in such manner that a flow of water into the public water supply is possible either through the manipulation of valves or because of any other arrangement.

(3) "Auxiliary intake." Any piping connection or other device whereby water may be secured from a source other than that normally used.

(4) "By-pass." Any system of piping or other arrangement whereby the water may be diverted around any part or portion of a water purification plant.

(5) "Inter-connection." Any system of piping or other arrangement whereby the public water supply is connected directly with a sewer, drain, conduit, pool, storage reservoir, or other device which does or may contain sewage or other waste or liquid which would be capable of imparting contamination to the public water supply.

(6) "Person." Any and all persons, natural or artificial, including any individual, firm, or association, and any municipal or private corporation

¹Municipal code reference

Plumbing and related codes: title 12.

organized or existing under the laws of this or any other state or country. (1994 Code, § 18-401)

18-402. Standards. The South Pittsburg Public Water Supply is to comply with Tennessee Code Annotated, §§ 68-221-701 through 68-221-719 as well as the Rules and Regulations for Public Water Supplies, legally adopted in accordance with this code, which pertain to cross-connections, auxiliary intakes, by-passes, and inter-connections, and establish an effective, ongoing program to control these undesirable water uses. (1994 Code, § 18-402)

18-403. Construction, operation, and supervision. It shall be unlawful for any person to cause a cross-connection to be made; or allow one to exist for any purpose whatsoever unless the construction and operation of same have been approved by the Tennessee Department of Health and Environment, and the operation of such cross-connection, auxiliary intake, by-pass or inter-connection is at all times under the direct supervision of the Manager, Water and Sewer Department of the City of South Pittsburg. (1994 Code, § 18-403)

18-404. Statement required. Any person whose premises are supplied with water from the public water supply and who also has on the same premises a separate source of water supply or stores water in an uncovered or unsanitary storage reservoir from which the water stored therein is circulated through a piping system, shall file with the manager, water and sewer department a statement of the non-existence of unapproved or unauthorized auxiliary intakes, by-passes, or inter-connections, such statement shall also contain an agreement that no cross-connection, auxiliary intake, by-pass, or inter-connection will be permitted upon the premises. (1994 Code, § 18-404)

18-405. Inspections required. It shall be the duty of the South Pittsburg Public Water Supply to cause inspections to be made of all properties served by the public water supply where cross-connections with the public water supply are deemed possible. The frequency of inspections and reinspections, based on potential health hazards involved shall be established by the Manager of the South Pittsburg Public Water Supply and as approved by the Tennessee Department of Health and Environment. (1994 Code, § 18-405)

18-406. Right of entry for inspections. The manager, water sewer department or his authorized representative shall have the right to enter at any reasonable time any property served by a connection to the South Pittsburg Public Water Supply for the purpose of inspecting the piping system or systems therein for cross-connections, auxiliary intakes, by-passes, or inter-connections. On request, the owner, lessee, or occupant of any property so served shall furnish to the inspection agency any pertinent information regarding the piping system or systems on such property. The refusal of such information or refusal

of access, when requested, shall be deemed evidence of the presence of cross-connections. (1994 Code, § 18-406)

18-407. Correction of existing violations. Any person who now has cross-connections, auxiliary intakes, by-passes, or inter-connections in violation of the provisions of this chapter shall be allowed a reasonable time within which to comply with the provisions of this chapter. After a thorough investigation of existing conditions and an appraisal of the time required to complete the work, the amount of time shall be designated by the Manager, Water and Sewer Department of the City of South Pittsburg Public Water Supply.

The failure to correct conditions threatening the safety of the public water system as prohibited by this chapter and the Tennessee Code Annotated, § 68-221-711, within a reasonable time and within the time limits set by the South Pittsburg Public Water Supply, shall be grounds for denial of water service. If proper protection has not been provided after a reasonable time, the utility shall give the customer legal notification that water service is to be discontinued and shall physically separate the public water supply from the customer's on-site piping system in such a manner that the two systems cannot again be connected by an unauthorized person.

Where cross-connections, inter-connections, auxiliary intakes, or by-passes are found that constitute an extreme hazard of immediate concern of contaminating the public water system, the manager of the utility shall require that immediate corrective action be taken to eliminate the threat to the public water system. Immediate steps shall be taken to disconnect the public water supply from the on-site piping system unless the imminent hazard(s) is (are) corrected immediately. (1994 Code, § 18-407)

18-408. Use of protective devices. Where the nature of use of the water supplied a premises by the water department is such that it is deemed:

- (1) Impractical to provide an effective air-gap separation.
- (2) That the owner and/or occupant of the premises cannot, or is not willing, to demonstrate to the official in charge of the system; or his designated representative, that the water use and protective features of the plumbing are such as to propose no threat to the safety or potability of the water supply.
- (3) That the nature and mode of operation within a premises are such that frequent alterations are made to the plumbing.
- (4) There is a likelihood that protective measures may be subverted, altered, or disconnected.

The Manager, Water and Sewer Department of the South Pittsburg Public Water Supply, or his designated representative, shall require the use of an approved protective device on the service line serving the premises to assure that any contamination that may originate in the customer's premises is contained therein. The protective device shall be a reduced pressure zone type backflow preventer approved by the Tennessee Department of Health and

Environment as to manufacture, model, and size. The method of installation of backflow protective devices shall be approved by the Manager, Water Sewer Department Public Water Supply prior to installation and shall comply with the criteria set forth by the Tennessee Department of Health and Environment. The installation shall be at the expense of the owner or occupant of the premises.

Personnel of the South Pittsburg Public Water Supply shall have the right to inspect and test the device or devices on an annual basis or whenever deemed necessary by the manager, water and sewer department or his designated representative. Water service shall not be disrupted to test the device without the knowledge of the occupant of the premises.

Where the use of water is critical to the continuance of normal operations or protection of life, property, or equipment, duplicate units shall be provided to avoid the necessity of discontinuing water service to test or repair the protective device or devices. Where it is found that only one unit has been installed and the continuance of service is critical, the manager, water and sewer department shall notify, in writing, the occupant of the premises of plans to discontinue water service and arrange for a mutually acceptable time to test and/or repair the device. The water supply shall require the occupant of the premises to make all repairs indicated promptly, to keep the unit(s) working properly, and the expense of such repairs shall be borne by the owner or occupant of the premises. Repairs shall be made by qualified personnel acceptable to the Manager, Water and Sewer Department of the South Pittsburg Public Water Supply.

If necessary, water service shall be discontinued following legal notification for failure to maintain backflow prevention devices in proper working order. Likewise, the removal, by-passing, or altering of the protective device(s) or the installation thereof so as to render the device(s) ineffective shall constitute grounds for discontinuance of water service. Water service to such premises shall not be restored until the customer has corrected or eliminated such conditions or defects to the satisfaction of the South Pittsburg Public Water Supply. (1994 Code, § 18-408)

18-409. Unpotable water to be labeled. The potable water supply made available to premises served by the public water supply be protected from possible contamination as specified herein. Any water outlet which could be used for potable or domestic purposes and which is not supplied by the potable system must be labeled in a conspicuous manner as:

WATER UNSAFE

FOR DRINKING

Minimum acceptable sign shall have black letters at least one-inch high located on a red background. (1994 Code, § 18-409)

18-410. Violations. Any person who neglects or refuses to comply with any of the provisions of this chapter shall be deemed guilty of a misdemeanor and, upon conviction therefor, shall be fined not less than ten dollars (\$10.00) nor more than one hundred dollars (\$100.00), and each day of continued violation after conviction shall constitute a separate offense. (1994 Code, § 18-410)

18-411. Location of premises served. The requirements contained herein shall apply to all premises served by the South Pittsburg Board of Water Works and Sewers whether located inside or outside the corporate limits and are hereby made a part of the conditions required to be met for the city to provide water services to any premises. Such action, being essential for the protection of water distribution system against the entrance of contamination which may render the water unsafe healthwise, or otherwise undesirable, shall be enforced rigidly without regard to location of the premises, whether inside or outside the South Pittsburg corporate limits. (1994 Code, § 18-411)

CHAPTER 5

MISCELLANEOUS

SECTION

18-501. Building permit required for utility connections.

18-502. Certificate of occupancy required for utility service.

18-503. Permit required for utility service to mobile homes.

18-504. Enforcement.

18-505. Violations.

18-501. Building permit required for utility connections. No public or private utility department, company, or corporation shall connect utilities to any new building or structure until the property owner shall present a valid building permit, signed by the building inspector, for that structure. (1994 Code, § 18-501)

18-502. Certificate of occupancy required for utility service. No public or private utility department, company, or corporation shall begin service, turn on water, electricity, or gas, or in any way furnish service to a structure until the property owner shall present a valid certificate of occupancy, signed by the building inspector, for that structure. (1994 Code, § 18-502)

18-503. Permit required for utility service to mobile homes. Requiring a Mobile Home Permit for Initiation of Service. No public or private utility department, company, or corporation shall begin service, turn on water, electricity, or gas, or in any way furnish service to a mobile home until the mobile home owner or lessee shall present a valid mobile home permit, signed by the building inspector. (1994 Code, § 18-503)

18-504. Enforcement. It shall be the duty and responsibility of the building inspector to enforce and administer the provisions of this chapter. (1994 Code, § 18-504)

18-505. Violations. (1) Any person or corporation who violates the provisions of this chapter or fails to perform the reasonable requirements of the city building inspector after receipt of thirty (30) days written notice of such requirements, shall be guilty of a misdemeanor.

(2) If a utility department, company, or corporation does connect with the system of a structure or initiates service in violation of this chapter, the city building inspector shall direct that department, company, or corporation to close the connection and discontinue service at the department, company, or corporation's expense.

(3) Any violation of this chapter shall be punishable under the general penalty clause for this code of ordinances. (1994 Code, § 18-505)