## **CHAPTER 96**

## **BUILDING SEWERS AND CONNECTIONS**

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96.01 PERMIT. No unauthorized person shall uncover, make any connection with or opening into, use, alter or disturb any public sewer or appurtenance thereof without first obtaining a written permit from the City. The application for the permit shall set forth the location and description of the property to be connected with the sewer system and the purpose for which the sewer is to be used, and shall be supplemented by any plans, specifications, or other information considered pertinent. The permit shall require the owner to complete construction and connection of the building sewer to the public sewer within thirty (30) days after the issuance of the permit, except that when a property owner makes sufficient showing that due to conditions beyond the owner's control or peculiar hardship, such time period is inequitable or unfair, an extension of time within which to comply with the provisions herein may be granted. Any sewer connection permit may be revoked at any time for a violation of these chapters.

96.02 PERMIT FEE AND CONNECTION CHARGE. There are two (2) classes of building sewer permits, one for residential and commercial service, and one for service to establishments producing industrial wastes. The person who makes the application for either class of permit shall pay a fee in the amount of one hundred dollars (\$100.00) to the City Clerk to cover the cost of issuing the permit and supervising, regulating, and inspecting the work. In addition, there shall be a charge in an amount to reimburse the City for costs borne by the City in making the sewer tap to the property served.

(Ord. 815 - Jun. 04 Supp.)

**96.03 PLUMBER REQUIRED.** All installations of building sewers and connections to the public sewer shall be made by a plumber approved by the City. The Superintendent shall have the power to suspend the approval of any plumber for violation of any of the provisions of these Sanitary Sewer chapters; a suspension, unless revoked, shall continue until the next regular meeting of the Council. The Superintendent shall notify the plumber immediately by personal written notice of the suspension, the reasons for the suspension, and the time and place of the Council meeting at which the plumber will be granted

a hearing. At this Council meeting the Superintendent shall make a written report to the Council stating the reasons for the suspension, and the Council, after fair hearing, shall affirm or revoke the suspension or take any further action that is necessary and proper. The plumber shall provide a surety bond in the minimum sum of five thousand dollars (\$5,000.00) secured by a responsible surety bonding company authorized to operate within the State, conditioned to indemnify and save the City harmless against all losses or damages that may arise from or be occasioned by the making of connections with the public sewers or excavations therefor or by carelessness, negligence or unskillfulness in making the same. Such bond shall remain in force and must be executed for a period of one year except that on such expiration it shall remain in force as to all penalties, claims and demands that may have accrued thereunder prior to such expiration. In lieu of a surety bond, a cash deposit of five thousand dollars (\$5,000.00) may be filed with the City.

- **96.04 EXCAVATIONS.** All excavations required for the installation of a building sewer shall be made in accordance with the following and with the provisions of Chapter 135 where applicable.
  - 1. Barricades and Lighting. Adequate barricades and warning lights shall be so placed as to protect the public from hazard.
  - 2. Public Convenience. Streets and alleys shall be opened in the manner that will cause the least inconvenience to the public and admit the uninterrupted passage of water along the gutter on the street.
  - 3. Construction Methods. All excavation required for the installation of a building sewer shall be open trench work unless otherwise approved by the City. Pipe laying and backfill shall be performed in accordance with A.S.T.M. Specification D2321-89, except that no backfill shall be placed until the work has been inspected.
  - 4. Restoration of Public Property. Streets, sidewalks, parkways and other public property disturbed in the course of the work shall be restored in a manner satisfactory to the City, at the expense of the property owner.
  - 5. Completion by the City. Should any excavation in any street or alley be left open or unfinished for a period of twenty-four (24) hours or should the work be improperly done, the Superintendent shall have the right to finish or correct such work and the expense shall be charged to the property owner.
- **96.05 CONNECTION REQUIREMENTS.** Any connection with a public sanitary sewer must be made under the direct supervision of the Superintendent and in accordance with the following:

- 1. Old Building Sewers. Old building sewers may be used in connection with new buildings only when they are found, on examination and test conducted by the owner and observed by the Superintendent, to meet all requirements of this chapter.
- 2. Separate Building Sewers. A separate and independent building sewer shall be provided for every occupied building; except where one building stands at the rear of another on an interior lot and no sewer is available or can be constructed to the rear building through an adjoining alley, court, yard, or driveway. In such cases the building sewer from the front building may be extended to the rear building and the whole considered as one building sewer.
- 3. Installation. The connection of the building sewer into the public sewer shall conform to the requirements of Division 4, Plumbing Rules and Regulations, of the State Building Code, applicable rules and regulations of the City, or the procedures set forth in A.S.T.M. Specification D2321-89. 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.
- 4. Water Lines. When possible, building sewers should be laid at least ten (10) feet horizontally from a water service. The horizontal separation may be less, provided the water service line is located at one side and at least twelve (12) inches above the top of the building sewer.
- 5. Size. Building sewers shall be sized for the peak expected sewage flow from the building with a minimum building sewer size of four (4) inches.
- 6. Alignment and Grade. All building sewers shall be laid to a straight line and at a uniform grade of not less than the following:
  - A. Four (4) inch lines: one-fourth ( $\frac{1}{4}$ ) inch per foot.
  - B. Six (6) inch lines: one-eighth (1/8) inch per foot.
  - C. Minimum velocity of 2.00 feet per second with the sewer half full.
  - D. Any deviation in alignment or grade shall be made only with the written approval of the Superintendent and shall be made only with approved fittings.
- 7. Depth. Whenever possible, the building sewer shall be brought to the building at an elevation below the basement floor. The depth of cover above the sewer shall be sufficient to afford protection from frost.

- 8. Sewage Lifts. In all buildings in which any building drain is too low to permit gravity flow to the public sewer, sanitary sewage carried by such drain shall be lifted by approved artificial means and discharged to the building sewer.
- 9. Pipe Specifications. Building sewer pipe shall be free from flaws, splits, or breaks. Materials shall be as specified in Division 4 of the State Building Code except that the building sewer pipe, from the property line to the public sewer, shall comply with the current edition of one of the following:
  - A. Clay sewer pipe A.S.T.M. C200-69 (extra strength).
  - B. Extra heavy cast iron soil pipe A.S.T.M. A74-69.
  - C. Cast iron water pipe A.S.T.M. A377-66.
  - D. P.V.C. A.S.T.M. D3034-97 (SDR 23.5).
- 10. Bearing Walls. No building sewer shall be laid parallel to, or within three (3) feet of any bearing wall, which might thereby be weakened.
- 11. Jointing. Fittings, type of joint, and jointing material shall be compatible with the type of pipe used, subject to the approval of the Superintendent. Solvent-welded joints are not permitted.
- 12. Unstable Soil. No sewer connection shall be laid so that it is exposed when crossing any watercourse. Where an old watercourse must of necessity be crossed or where there is any danger of undermining or settlement, cast iron soil pipe or vitrified clay sewer pipe thoroughly encased in concrete shall be required for such crossings. Such encasement shall extend at least six (6) inches on all sides of the pipe. The cast iron pipe or encased clay pipe shall rest on firm, solid material at either end.
- 13. Preparation of Basement or Crawl Space. No connection for any residence, business or other structure with any sanitary sewer shall be made unless the basement floor is poured, or in the case of a building with a slab or crawl space, unless the ground floor is installed with the area adjacent to the foundation of such building cleared of debris and backfilled. The backfill shall be well compacted and graded so that the drainage is away from the foundation. Prior to the time the basement floor is poured, or the first floor is installed in buildings without basements, the sewer shall be plugged and the plug shall be sealed by the Superintendent. Any accumulation of water in any excavation or basement during construction and prior to connection to the sanitary

sewer shall be removed by means other than draining into the sanitary sewer.

- 96.06 INTERCEPTORS REQUIRED. The purpose of this section is to aid in the prevention of sanitary sewer blockages and obstructions from contribution and accumulation of fat, oil, and grease (FOG) into the WPCF. Such discharges from commercial kitchens, restaurants, food processing facilities and all other establishments, where fat, oil and grease (FOG) of vegetable or animal origin are discharged directly or indirectly into the WPCF, can contribute to line blockages and/or spills in violations of Title 40, Code of Federal Regulations 40 CFR, Part 403.
  - 1. Grease, oil, sludge and sand interceptors shall be provided by gas and service stations, convenience stores, car washes, garages, restaurants, and other facilities when, in the opinion of the Water Pollution Control Facility Superintendent, they are necessary for the proper handling of such wastes that contain grease in excessive amounts or any flammable waste, sand or other harmful ingredients. Such interceptors shall not be required for private living quarters or dwelling units. When required, such interceptors shall be installed in accordance with this chapter and section of the City of Perry Code of Ordinances.
  - 2. Definitions of words and phrases used in this chapter have the following meaning unless the context clearly indicates otherwise:
    - A. "Best Management Practices or BMPs" means and includes schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. For purposes of this section, best management practices include procedures and practices that reduce the discharge of fat, oil and grease (FOG) to the building sewer, to the city sanitary sewer system and to the WPCF.
    - B. "Design Liquid Depth" means the maximum depth of liquid when the tank is filled with water.
    - C. "Food Service Establishment or FSE" means an operation or enterprise that stores, prepares, packages, serves, vends, or otherwise provides food for human consumption. Such facilities may include, but are not limited to, those that process meat or other food ingredients as an intermediate step or for final human consumption, food service operations in a summer camp, residential substance abuse treatment facility, halfway house, correctional facility, school, restaurant, commercial kitchen,

- caterer, church, hotel, school, hospital, prison, correctional facility, care institution or similar facility.
- D. "Grease Interceptor" means a tank that serves one or more fixtures and is remotely located. Grease interceptors include, but are not limited to, tanks that capture wastewater from dishwashers, garbage disposals, floor drains, pot and pan sinks and trenches as allowed by local plumbing codes. For purposes of this section, a grease interceptor is a multi-compartment tank located underground outside of a building that reduces the amount of FOG in wastewater prior to its discharge into the WPCF.
- E. "WPCF" means Water Pollution Control Facility or Municipal Waste Water Treatment Plant. This facility treats sanitary waste prior to its release.
- F. "Grease Trap" means a device designed to retain grease from one to a maximum of four fixtures. Not all grease traps are approved by the manufacturer for use on heated water (e.g., dishwasher) or in-line to a waste disposal unit (e.g., garbage disposal and grinders). For the purpose of this section, a grease trap is a small device located within a building.
- G. "Minimum Design Capability" means the design features of a grease interceptor and its ability or volume required to effectively intercept and retain greases from grease-laden wastewaters discharged to the WPCF.
- 3. Grease interceptor installation required after effective date. The owner or operator of a building or facility likely to discharge FOG to the WPCF, including FSEs, shall be required to install an approved grease interceptor, and to thereafter operate and maintain same as provided in this section if:
  - A. The building or facility is proposed or constructed after the effective date; or
  - B. The building or facility exists on the effective date and is thereafter expanded or renovated to include an FSE where such FSE did not previously exist; or
  - C. An FSE within a building or facility exists on the effective date and application is thereafter made for a building permit for the facility with valuation of \$50,000.00 or more.
  - D. The inceptors shall be constructed of impervious material capable of withstanding abrupt and extreme changes in temperature. They shall be of substantial construction, watertight

- and equipped with easily removable covers that shall be gastight and watertight.
- 4. Exemption from grease interceptor installation requirement. A building or facility within which an FSE is in existence on the effective date shall be exempt from the requirement to install a grease receptor if:
  - A. The FSE has an existing grease interceptor or grease trap in place as of the effective date and provided that:
    - (1) The owner or occupant of the FSE continues to use the interceptor or trap.
    - (2) The interceptor or trap is of sufficient capacity and design.
    - (3) The interceptor or trap is operated and maintained so as to comply with FOG discharge limits.
  - B. Repair, remodeling or renovation of the wastewater plumbing system in an existing FSE involves only:
    - (1) The repair of leaks or the clearing of stoppages in drains, soil, waste or vent piping.
    - (2) The removal and reinstallation of a sink, toilet or hot water heater; provided that such work does not involve replacement, rearrangement or moving of wastewater valves, traps or pipes.
- 5. Operation, maintenance and cleaning of grease interceptors is as follows:
  - A. The owner or operator of an FSE which is required to pass wastewater through a grease interceptor shall operate and maintain the grease interceptor so that wastewater exiting the grease interceptor shall not exceed four hundred (400) milligrams per liter of FOG.
  - B. The owner or operator of the FSE shall cause the grease interceptor to be cleaned as hereinafter required when FOG and solids reach 25% of the design liquid level of the grease interceptor, or sooner if necessary to prevent carryover of grease from the grease interceptor into the City sanitary sewer system. Interceptors shall be cleaned at three (3) month intervals or less. A longer cleaning interval must be approved by the WPCF Director. If the owner or operator of the FSE, or an employee of the owner or operator, and has completed to the satisfaction of the WPCF Director, the person or persons may clean the grease

interceptor. Alternatively, the owner or operator of an FSE may employ a waste hauler that uses the proper equipment to clean the grease interceptor, provided that the waste hauler personnel performing the grease interceptor cleaning has satisfactorily completed a course of training on grease interceptor cleaning offered by the WPCF Director of the City of Perry.

- C. Any person who cleans a grease interceptor shall do so in accordance with the following procedures and requirements. The person cleaning the grease interceptor shall:
  - (1) Completely empty and remove the contents (liquids and sludge) of all vaults of the grease interceptor, and remove the grease mat and scrapings from the interior walls.
  - (2) Not deposit waste and wastewater removed from a grease interceptor, back into the grease interceptor from which the waste or wastewater was removed or into any other grease interceptor, for the purpose of reducing the volume of waste and wastewater to be disposed of.
  - (3) Not introduce enzymes, emulsifying chemicals, hot water or other agents into a grease interceptor to dissolve or emulsify grease or as a grease abatement method. Introduction of bacteria as a grease degradation agent is permitted with prior written approval by the WPCF Director.
  - (4) Dispose of waste and wastewater removed from a grease interceptor at the WPCF or at a facility approved for disposal of such waste by the WPCF Director. Waste and wastewater removed from a grease interceptor shall not be discharged to any private sanitary or storm sewer or to the City sanitary or storm sewer system.
  - (5) Not use an automatic grease removal system to clean a grease interceptor without prior written approval of the WPCF Director, and if, the use of an automatic grease removal system is approved shall operate same in a manner that the grease wastewater discharge limit as measured from the system's outlet, is consistently achieved.
- D. If grease interceptor cleaning is performed by a licensed waste hauler, the owner or operator of the FSE shall witness all cleaning/maintenance activities to verify that the grease

interceptor is being fully cleaned and properly maintained according to the requirement of this section.

- E. The waste hauler shall provide a copy of the disposal receipt for all waste and wastewater removed from a grease interceptor to the owner or operator of the FSE.
- F. As part of each cleaning of a grease interceptor, the owner or operator of the FSE, or the licensed waste hauler employed by the owner or operator, shall perform the following maintenance activities:
  - (1) Check that the sanitary "tees" on the inlet and outlet sides of the grease interceptor are not obstructed, loose, or missing.
  - (2) Verify that the baffle is secure and in place.
  - (3) Inspect the grease interceptor for any cracks or other defects.
  - (4) Check that lids are securely and properly seated after completion or cleaning.
- G. The WPCF Director may make exception to the above requirements, or may approve alternative operational requirements or cleaning and maintenance methods, provided that such exceptions or approval shall be made in writing by the WPCF Director.
- 6. Records and record keeping will be completed as follows:
  - Required Records. The owner or operator of an FSE which is required to pass wastewater through a grease interceptor or trap shall maintain a written record of grease interceptor or trap maintenance, including a log showing the dates upon which the grease interceptor or trap was inspected and the estimated amount of FOG present in the grease interceptor or trap at each inspection, the date upon which waste and wastewater was removed from the grease interceptor or trap and disposed of, and the location and means of such disposal of waste and wastewater, and the name and employer or the person or persons performing each of the placement of any approved or unapproved additive into the grease interceptor, grease trap or building sewer on a constant, regular or scheduled basis, including the type and amount of additive placed on each such occasion. Only additives approved by the WPCF Director pursuant to 96.06(5B),(5C) may be used in a grease interceptor.

- B. Record Keeping. The log shall at all times be kept and maintained on a day-to-day basis, so as to show a record of waste and wastewater removal, waste and wastewater disposal and approved additive placement for a continuous period of three (3) years. All such records shall be kept secure at the premises of the FSE for a continuous period of three (3) years and shall be made available for non-routine inspection by the City of Perry, the WPCF Director and its operation contractor, or the employees and agents of any of them at any time during normal business hours.
- 7. Inspection of grease interceptors and related sewers and equipment. The owner or operator of an FSE which is required to pass its wastewater through a grease interceptor shall:
  - A. Provide, operate and maintain, at its expense, safe and accessible monitoring facilities (such as a suitable manhole), and shall make such monitoring facilities available for inspection, and for sampling and flow measurement of the building sewer or internal drainage systems. There shall be ample room in or near such monitoring facility to allow accurate sampling and preparation of samples for analysis.
  - B. Shall allow personnel authorized by the WPCF Director or by the City Building Official or designee, bearing proper credentials and identification, to enter upon or into any building, facility or property housing an FSE at any reasonable time and without prior notification, for the purpose of inspection, observation, measurement, sampling, testing or record review, in accordance with this section.
  - C. Shall, upon request by the WPCF Director's authorized representative, open any grease interceptor for the purpose of confirming that maintenance frequency is appropriate, that all necessary parts of the installation are in place, including but not limited to, baffles, and effluent tees, and that all grease interceptors and related equipment and piping is maintained in efficient operating condition.
  - D. Shall accommodate compliance inspections and sampling events by the authorized representatives of the WPCF Director or of the City Building Official. Staff may conduct routine inspections and sampling event of any food service establishment. Non-routine inspection and sampling events shall occur more frequently when there is a history of noncompliance with this section and when blockages occur in the City's sanitary sewer system downstream of the FSE.

(Ord. 882 - Jan. 10 Supp.)

96.07 SEWER TAP. Connection of the building sewer into the public sewer shall be made at the "Y" branch, if such branch is available at a suitable location. If no properly located "Y" branch is available, the property owner shall at the owner's expense install a "Y" saddle in the public sewer at the location specified by the Superintendent. At no time shall a building sewer be constructed so as to enter a manhole unless special written permission is received from the Superintendent and in accordance with the Superintendent's direction if such connection is approved.

96.08 INSPECTION REQUIRED. All connections with the sanitary sewer system before being covered shall be inspected and approved, in writing, by the Superintendent. As soon as all pipe work from the public sewer to inside the building has been completed, and before any backfilling is done, the Superintendent shall be notified and the Superintendent shall inspect and test the work as to workmanship and material; no sewer pipe laid under ground shall be covered or trenches filled until after the sewer has been so inspected and approved. If the Superintendent refuses to approve the work, the plumber or owner must proceed immediately to correct the work.

**96.09 PROPERTY OWNER'S RESPONSIBILITY.** All costs and expenses incident to the installation, connection and maintenance 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.

96.10 ABATEMENT OF VIOLATIONS. Construction or maintenance of building sewer lines whether located upon the private property of any owner or in the public right-of-way, which construction or maintenance is in violation of any of the requirements of this chapter, shall be corrected, at the owner's expense, within thirty (30) days after date of official notice from the Council of such violation. If not made within such time the Council shall, in addition to the other penalties herein provided, have the right to finish and correct the work and assess the cost thereof to the property owner. Such assessment shall be collected with and in the same manner as general property taxes.

(Code of Iowa, Sec. 364.12[3])

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