

TITLE 17

CHAPTER 15

Sewers and Drains

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§3451. Definitions

As used in this ordinance the following definitions shall apply:

- (a) "BOD" (denoting Biochemical Oxygen Demand) shall mean the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure in 5 days at 20° C., expressed in milligrams per liter.
- (b) "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 5 feet (1.5 meters) outside the inner face of the building wall.
- (c) "Building sewer" shall mean the extension from the building drain to the public sewer septic system distribution box, or place of disposal.
- (d) "Combined sewer" shall mean a sewer receiving both surface runoff and sewage.
- (e) "Commissioner" shall mean the commissioner of public works of the City of Rutland, or his duly authorized deputy, agent, or representative.
- (f) "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.
- (g) "Health Officer" shall mean the health officer of the City of Rutland, or his duly authorized deputy, agent, or representative.
- (h) "Industrial wastes" shall mean the liquid wastes from industrial manufacturing processes, trade or business as distinct from sanitary sewage.

- (i) "Natural outlet" shall mean any outlet into a watercourse, pond, ditch, lake, or other body of surface or ground water.
- (j) "Person" shall mean any individual, firm, company, association, society, corporation, or group.
- (k) "pH" shall mean the logarithm of the reciprocal of the weight of hydrogen ions in grams per liter of solution.
- (l) "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 1/2 inch (1.27 centimeters) in any dimension.
- (m) "Public sewer" shall mean a sewer in which all owners of abutting properties have equal rights, and is controlled by public authority.
- (n) "Sanitary sewer" shall mean a sewer which carries sewage and to which storm, surface, and ground waters are not intentionally admitted.
- (o) "Sewage" shall mean a combination of the water-carried wastes from residences, business buildings, institutions, and industrial establishments, together with such ground, surface, and storm waters as may be present.
- (p) "Sewage treatment plant" shall mean any arrangement of devices and structures used for treating sewage.
- (q) "Sewage works" shall mean all facilities for collecting, pumping, treating, and disposing of sewage.
- (r) "Sewer" shall mean a pipe or conduit for carrying sewage.
- (s) "Shall" is mandatory; "may" is permissive.
- (t) "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 15 minutes, more than 5 times the average 24 hour concentration or flows during normal operation.
- (u) "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.
- (v) "Suspended solids" shall mean solids that either float on the surface or, or are in suspension in water, sewage, or other liquids, and which are removable by laboratory filtering.

(w) "Watercourse" shall mean a channel in which a flow of water occurs, either continuously or intermittently.

(x) "Secretary" shall mean the secretary of the agency of environmental conservation, State of Vermont, or his representative.

§3452. Use of public sewers as mandatory

(a) It shall be unlawful for any person to place, deposit, or permit to be deposited in an unsanitary manner upon public or private property within the city, or in any area under the jurisdiction of the city, any human or animal excrement, garbage, or other objectionable waste.

(b) It shall be unlawful to discharge to any natural outlet within the city, or in any area under the jurisdiction of the city, any sanitary sewage, industrial wastes, or other polluted waters.

(c) The owner of any house, building or property used for human occupancy, employment, recreation, or other purpose, situated within the city 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 city 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 90 days after date of official notice to do so, provided that such public sewer is within 100 feet of the property line.

§3453. Private (rural) sewage disposal

(a) Where a public sanitary or combined sewer is not available under the provisions of section 3452(c), the building sewer shall be connected to a private sewage disposal system complying with the provisions of this section.

(b) Before commencement of construction of a private sewage disposal system the owner shall first obtain a written permit signed by the commissioner, which the applicant shall supplement by any plans, specifications, and other information as are deemed necessary by the commissioner.

(c) A permit for a private sewage disposal system shall not become effective until the installation is completed to the satisfaction of the commissioner. He shall be allowed to inspect the work at any stage of construction and in any event, the applicant for the permit shall notify the commissioner when the work is ready for final inspection, and before any underground portions are covered. The inspection shall be made within 48 hours of the receipt of notice by the commissioner.

(d) The type, capacities, location and layout of a private sewage disposal system shall comply with all recommendations of the department of public health and the agency

of natural resources of the State of Vermont. No permit shall be issued for any private sewage disposal system employing subsurface soil absorption facilities where the area of the lot is less than 20,000 square feet (1858 square meters). 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) At such time as a public sewer becomes available to a property served by a private sewage disposal system, as provided in section 3452(c), a direct connection shall be made to the public sewer in compliance with this ordinance within 90 days of the issuance of an order to do so by the commissioner. Any septic tanks, cesspools, and similar private sewage disposal facilities shall be cleaned of sludge and scum, abandoned and filled with suitable material.

(g) No statement contained in this section shall be construed to interfere with any additional requirements that may be imposed by the health officer.

§3454. Building sewer connection requirements

(a) 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 commissioner and paying the required connection fee, deposit and any other fees as set by the board of aldermen. Any person proposing a new discharge into the system or a substantial change in the volume or character of pollutants that are being discharged into the system shall notify the commissioner at least 45 days prior to the proposed change or connection.

(b) All costs and expenses incident to the installation, connection, and repair of the building sewer shall be borne by the owner. Where the work involved will or may disturb public property, a monetary deposit in an amount to be determined by the board of aldermen shall be required. This deposit will be returned to the applicant upon satisfactory restoration of the disturbed area or facilities. If the area or facilities are not satisfactorily restored, the deposit shall be applied towards completing the work, and any remaining money returned to the applicant. If the deposit is insufficient to complete the work, the applicant shall be billed for the shortfall. 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) The building sewer shall be push-on joint, gasketed cast iron, ductile iron, or SDR 35 PVC pipe installed per the manufacturer's recommendations. Joints shall be watertight. The use of other pipe may be considered by the commissioner on a case by case basis.

(e) 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. The size and slope of the building sewer shall be subject to the approval of the commissioner, but in no event shall the diameter be less than 4 inches. The slope of such 4-inch pipe shall be not less than 1/4 inch per foot.

(f) The 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 the public sewer is twelve inches in diameter or less, and no properly located "Y" branch is available, the owner shall at his expense install at "Y" branch in the public sewer at the location specified by the commissioner. Where the public sewer is greater than twelve inches in diameter, and no properly located "Y" branch is available, a neat hole may be cut into the public sewer and a saddle type "y" connection or an "Insert-a-tee" type fitting installed. The invert of the building sewer at the point of connection shall be at a higher elevation than the invert of the public sewer. Other special fittings may be used for the connection only when approved by the commissioner. The connection to the sewer main shall be made watertight.

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

(h) 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.

(i) Whenever possible the depth of the building sewer shall be sufficient to afford protection from frost, when not possible, it shall be the owner's responsibility to protect the pipe from freezing. The building sewer shall be laid at uniform grade and in straight alignment insofar as possible. Changes in direction shall be made only with properly curved pipe fittings, each fitting not to exceed a 45 degree bend. Cleanouts shall be installed at each change of direction which exceeds 45 degrees and at intervals of not more than 100 feet. Manholes may be used in lieu of cleanouts.

(j) An approved backwater valve or trap shall be installed when necessary, as required by the commissioner, at the expense of the owner. It shall be the owner's responsibility to maintain such valve or trap in operating condition.

(k) All work and materials are to be in compliance with applicable city, state and federal codes and regulations.

§3455. Use of public sewers

(a) No person shall make connection of roof downspouts, exterior foundation drains, area way drains, or other sources of storm water, surface runoff or ground water to a building sewer, building drain or other pipe which in turn is connected directly to a public sanitary sewer.

(b) No person shall make connection of roof downspouts, exterior foundation drains, area way drains, or other sources of surface runoff or ground water to a building sewer, building drain or other pipe which in turn is connected directly or indirectly to a public combined sewer. In special circumstances, where no storm sewer is available, the commissioner may authorize such connection to the combined sewer subject to any special conditions that he may determine to be appropriate.

(c) Stormwater and all other unpolluted drainage shall be discharged to such sewers as are specifically designated as storm sewers unless authorization to discharge to a combined sewer has been obtained as required in section (b) above.

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

1. Any gasoline, benzene, naphtha, fuel oil, or other flammable or explosive liquid, solid or gas.
2. 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 creation any hazard in the receiving waters of the sewage treatment plant.
3. Any waters or wastes having a pH lower than 5.0 or having any other corrosive property capable of causing damage or hazard to structures, equipment, and personnel of the sewage works.
4. Any radioactive wastes or isotopes.

(e) 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 commissioner 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 commissioner 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:

1. Any liquor or vapor having a temperature higher than 150EF. (65EC.).
2. Any water or waste containing fats, wax, grease, or oils, whether emulsified or not, in excess of 100 mg/l or containing substances which may solidify or become viscous at temperatures between 32 and 150EF (0 and 65EC.)
3. Any garbage that has not been properly shredded.
4. Any waters or wastes containing strong acid iron pickling wastes, or concentrated plating solutions whether neutralized or not.
5. Any waters or wastes containing iron, chromium, copper, zinc, 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 commissioner for such materials.
6. Any waters or wastes containing phenols or other taste or odor producing substances, in such concentrations exceeding limits which may be established by the commissioner as necessary, after treatment of the composite sewage to meet the requirements of the State, Federal, or other public agencies or jurisdiction for such discharge to the receiving waters.
7. Any waters or wastes having a pH in excess of 9.5.
8. Materials which exert or cause:
 - a. 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).
 - b. Excessive discoloration (such as, but not limited to, dye wastes and vegetable tanning solutions).
 - c. Unusual BOD, chemical oxygen demand, or chlorine requirements in such quantities as to constitute a significant load on the sewage treatment works, may cause the effluent limitations of the discharge permit to be exceeded.
 - d. Unusual volume of flow or concentration of wastes constituting "slugs" as defined herein.
9. Waters or wastes containing substances which are not amenable to treatment or reduction by the sewage treatment process 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.

10. 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.

(f) 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 (d), and which in the judgment of the commissioner, 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 commissioner may:

1. Reject the wastes.
2. Require pretreatment to an acceptable condition for discharge to the public sewers.
3. Require control over the quantities and rates of discharge, and/or
4. 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 this ordinance.

If the commissioner 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 commissioner, and subject to the requirements of all application codes, ordinances, laws and the municipal discharge permit. Further, such pretreatment installations must be consistent with the requirements of any state pretreatment permit issued to the industry.

(g) Grease, oil, and sand interceptors shall be provided and maintained by the owner, when in the opinion of the commissioner, 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 commissioner, and shall be located as to be readily and easily accessible for cleaning and inspection.

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

(i) When required by the commissioner, 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 accessible and safely located, and shall be constructed in accordance with plans approved by the commissioner. 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.

All industries discharging into a public sewer shall perform such monitoring of their discharges as the commissioner may reasonable require, including installation, use, and maintenance of monitoring equipment, keeping records and reporting the results of such monitoring to the commissioner. Where industrial pretreatment permits are issued by the State of Vermont, monitoring records must also be submitted to the secretary in accord with such permit. Records of any other monitoring will be supplied by the commissioner to the secretary on request.

(j) 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 to life, limb, and property. (The particular analyses involved will determine whether a 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-hour composites of all outfalls whereas pH's are determined from periodic grab samples.

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

§3456. Protection from damage; violations and penalties

No person shall maliciously, willfully, 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 a civil penalty of not more than \$500.

§3457. Powers and authority of inspectors

(a) The commissioner and other duly authorized employees of the city bearing proper credentials and identification shall be permitted to enter all properties for the purposed of inspection, observation, measurement, sampling, and testing in accordance with the provisions of this chapter. The commissioner 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 wastes treatment.

(b) The commissioner and other duly authorized employees of the city bearing proper credentials and identification shall be permitted to enter all private properties through which the city 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.

§3458. Penalties

(a) Any person found to be violating any provision of this chapter except section 3456 shall be served by the city 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.

(b) Any person who shall continue any violation beyond the time limit provided for in subsection (a) of this section shall be subject to a civil penalty of not more than \$500. Each day in which any such violation shall continue shall be deemed a separate offense.

(c) Any person violating any of the provisions of this chapter shall become liable to the city for any expense, loss, or damage occasioned the city by reason of such offense.