

CHAPTER IX

RULES AND REGULATIONS FOR GRINDER PUMPS

SECTION 1. DEFINITIONS OF TERMS USED IN THIS CHAPTER IX

- A. "**Department**" means Concord Township Sewer Department.
- B. "**Engineer**" means a licensed professional engineer registered by the Commonwealth of Pennsylvania.
- C. "**Grinder Pump**" means a submersible electric motor driven pump capable of macerating all material found in normal domestic sanitary sewage, including reasonable amounts of objects such as plastics, sanitary napkins, disposable diapers and the like, to a fine slurry and pumping this material through a small diameter discharge pipe. The Grinder Pump shall be housed in a vented, watertight enclosure.
- D. "**Improved Property**" means any property located within the Township upon which there is erected a structure intended for continuous or periodic habitation, occupancy or use by human beings or animals and from which structure Sanitary Sewage **shall** be or may be discharged.
- E. "**Industrial Waste**" means any solid, liquid or gaseous substance or water borne wastes or form of energy rejected or escaping from an industrial, manufacturing, trade or business process or from the development, recovery or processing of natural resources, as distinct from Sanitary Sewage.
- F. "**Lateral**" means that part of the Sewer System extending from the sewer main to the right of way line or to the edge of the permanent easement. If a lateral stub is not provided, then "Lateral" shall mean that place in a "Sewer System" which is provided for connection of the Building Sewer.
- G. "**Owner**" means any person vested with ownership, legal or equitable, sole or partial, of any property served directly or indirectly, by the Sewer System.

- H. **"Plumbing Inspector"** means the person or persons appointed by the Township and/or Authority to enforce the terms of these regulations.
- I. **"Sanitary Sewage"** means the normal water carried household and toilet wastes from residences, business buildings, institutions, and commercial and industrial establishments. All sewage shall be of domestic strength.
- J. **"Sewer System"** means all facilities owned, leased and/or operated by the Township for the collection, transportation, treatment or disposal of Sanitary Sewage.
- K. **"Township"** means the Township of Concord, Delaware County, Pennsylvania.

SECTION 2. PROCEDURE FOR ARRANGING TO MAKE CONNECTION

No person shall make or cause to be made a connection of any Improved Property with a sewer until such person shall have fulfilled each of the following conditions:

- a. Any person performing work on facilities to be connected to the Sewer System shall be a registered plumber in the Township of Concord.
- b. Such person shall have notified the Township of the desire and intention to connect such Improved Property to a sewer.
- c. Such person shall have made application for and obtained a permit from the Township. The permit shall include a sketch of the house sewer.
- d. Such person shall have given the Township at least 48-hours' notice of the time when such connection will be made so that the Township may inspect the work of connection and witness necessary testing.
- e. Such person shall have paid to the Township any connection fee charged and imposed by the Township.
- f. Such person shall have paid any Tapping Fee imposed by the Township and any inspection fee charged by the Township.

- g. Such person shall have certified to the Township that either he, or the contractor engaged by him to construct the facilities to be connected to the sewer system, shall:
 - (1) Purchase insurance as required by Pennsylvania Worker's Compensation laws and supply certificate of such coverage to Township.

SECTION 3. GRINDER PUMP CONNECTIONS

A. General

- 1. The Owner of any Improved Property who wants to utilize a Grinder Pump to discharge Sanitary Sewage to the Sewer System must receive permission from the Township, prior to installing the Grinder Pump.
- 2. Installation shall be performed only by qualified personnel, who shall be named in the application for the connection permit.
- 3. All connections to existing septic tanks, cesspools, drainage pits and/or leach fields shall be broken off and plugged. The existing septic tank(s) and cesspool(s) shall be pumped out and filled.
- 4. The Owner of the Improved Property who wants to utilize a Grinder Pump shall provide the following information to the Sewer Department Engineer for review and approval:
 - a. The manufacturer's detail sheet for the proposed Grinder Pump.
 - b. A pump curve for the proposed Grinder Pump.
 - c. A copy of the manufacturer's installation instructions.
 - d. A plan of the proposed connection which depicts all information that would be required for the engineer to determine if the Grinder Pump would function as it is intended, including but not limited to: the location of the building or structure that is being connected, the elevation of the existing house sewer and the lateral, and the proposed routing of the discharge piping.

- e. Any property connecting to a low-pressure sewer system shall utilize the pump specified by the Sewer Department Engineer.
- 5. No property or lot intended to be developed or improved shall be permitted to use or install a Grinder Pump, except upon satisfactory engineering demonstration to the Township that Sanitary Sewage discharge by gravity is not available.

B. Grinder Pump

- 1. The Township has pre-approved the Hydromatic, Barnes, Goulds and Environment One Grinder Pumps. Environment One Pumps are pre-approved for connection to low pressure sewer systems.
- 2. Other prefabricated Grinder Pumps may be utilized if approved by the sewer engineer.
- 3. The Grinder Pump shall be housed in a prefabricated container as manufactured by Hydromatic, Barnes, Goules or Environment One.
- 4. The Grinder Pump unit shall be installed in conformance with the manufacturer's recommendations.
- 5. Where the Township has approved the use of a Grinder Pump on any property or lot intended to be developed or improved the Grinder Pump must be of a duplex type approved for use by the Township.
- 6. Where the Township has approved the use of a Grinder Pump on an Improved Property for sanitary sewage from a business, institution, commercial or industrial establishment, the Grinder Pump must be of a duplex type approved by the Township.
 - a. Each Grinder Pump in use for a business building, institution, commercial or industrial establishment may be required to install a flow measurement system. Determination shall be made by the Township at the time of application to connect to the sewer system. Flow measuring devices shall consist of an inline magnetic flow meter and remote transmitter with the following specifications:

- (1) The magnetic meter shall be provided with hat flanges for installation and ground rings when required;
- (2) The transmitter shall provide a 4-20 mA output, proportional flow;
- (3) The flow sensor shall be rated NEMA 6 defined as continuously submersible in minimum of 10 ft. of water; and
- (4) Approved Manufacturers are Sparling TigerMag flow meter.

C. Electrical

1. The property owner must install the necessary electrical connection to power the Grinder Pump unit and must thereafter, at such owner's expense, provide the power supply for such purpose.
2. Each Grinder Pump unit shall be provided with an approved, lockable 2 pole disconnect switch. The switch shall be located outside of the building or structure and in sight of the Grinder Pump unit.
3. All wiring shall conform to the National Electric Code.
4. A remote alarm light shall be mounted at a conspicuous location in the building or structure.

D. Piping

1. The piping between the building and Grinder Pump shall conform to the requirements for a gravity building sewer connection.
2. Discharge piping shall be 1-1/4" HDPE DR 11. The pipe shall conform to ASTM standards, latest revision. Other sizes and types of piping may be utilized if approved by the Department Engineer.
3. The discharge piping shall include a redundant check-valve if not incorporated in the grinder pump package system. This valve shall be attached to the Grinder Pump discharge fitting.
4. Connection to the grinder pump shall be made with a HDPE/stainless steel transition fitting.

5. A minimum cover of three (3) feet of earth shall be provided for discharge piping to protect pipe from frost action and/or surface loading. Concrete encasement shall be provided where cover is less.
6. Discharge piping shall be bedded in either sand or screenings which meet Pennsylvania Department of Transportation, Form 408, standards. The bedding shall be at least four (4) inches thick. After the discharge piping has been tested and inspected an additional four (4) inches of sand or screenings shall be placed over the pipe.
7. The remainder of the back-fill material shall be free from cinders, ashes, refuse, vegetable or organic material or other material which, in the opinion of the Plumbing Inspector is unsuitable. Back fill material containing stones up to eight (8) inches in greatest dimension may be used. All stones or rocks in excess of eight (8) inches in greatest dimension shall be removed. The trench shall be completely back filled without displacement of the grade or alignment of the discharge piping. Back fill material shall be free of ice and no partially open trench shall be permitted to be left open during the night when temperatures below twenty-eight (28) degrees are predicted.

E. Testing

1. Completed discharge piping shall be pressure tested to one hundred (100) psi for ten (10) minutes.
2. The piping between the building and the Grinder Pump shall be tested in the manner required for gravity Building Sewer.
3. The electrical wiring and controls shall be inspected by an approved inspecting agency.
4. A final inspection shall be conducted by the Plumbing Inspector prior to the unit being placed in service.

F. Maintenance of Grinder Pump

1. The property owner using or intending to use a Grinder Pump shall be responsible for the operation, maintenance and repair of the Grinder Pump System from the pump to the Township Sewage Conveyance System (the Sewage

Facilities) in accordance with the requirements of the Township and DEP, as well as the Grinder Pump manufacturer.

2. Nothing in this Subsection shall prohibit the property owner using or intending to use a Grinder Pump from entering into a contract, independently or collectively with other owners or users, for professional Grinder Pump operation, maintenance and repair services.
3. The Township shall in no way be responsible for the operation, maintenance or repair of any Grinder Pump or any damage or injury to persons or property resulting from the use or installation of a Grinder Pump, or the failure or neglect of the property owner or user of a Grinder Pump to comply with the requirements of this Subsection.