

**REGULATIONS OF CONNECTICUT STATE AGENCIES**

**Department of Energy and Environmental Protection**

Public Utilities Regulatory Authority

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Each group of buildings or structures used in the production, refining or distribution of gas shall be provided with such signs as will definitely designate the name of the gas company owning or having the custody or maintenance of the same.

**Sec. 16-11-47. Reports to commission**

The gas company shall furnish to the commission, at such times and in such form as the commission may require, the results of any required tests and summaries of any required records. The gas company shall also furnish the commission with any information concerning the gas company's facilities or operations which the commission may request and need for determining rates or judging the practices of the gas company.

**Sec. 16-11-48. Reconstruction not required**

These regulations shall not be construed to require general reconstruction or re-equipping on the part of the gas company to conform with regulations for equipment or construction contained herein, not in force when such equipment was installed or construction made. The commission reserves the right to deal with specific cases as the particular conditions require.

**Appendix****Report of accidents—Sec. 16-16, General Statutes.**

Repealed, July 7, 2010.

**Inspection of meters—Sec. 16-259, General Statutes.**

Upon petition of any person and the payment of a fee of one dollar for each meter, the commission shall cause to be inspected any meter used in measuring electricity, gas or water supplied to such petitioner. The commission may prescribe such limits of variation from accurate registration by such meters as it determines to be reasonable. The company supplying electricity, gas or water through any such meter shall reimburse the petitioner for such inspection fee if such meter is found out to register accurately within the limit of variation so prescribed, and shall not again use such meter until it is corrected and approved by the commission.

**Service Supplied by Water Companies****Sec. 16-11-50. Definitions**

As used in sections 16-11-50 to 16-11-97, inclusive: (1) "Commission" means the public utilities commission of the state of Connecticut;

(2) "Company" or "utility" includes every person, partnership, corporation, company, association, joint stock association, or lessee thereof, owning, maintaining, operating, managing or controlling any pond, lake, reservoir or distributing plant employed for the purpose of supplying water for general domestic use in any town, city or borough, or portion thereof, within this state;

(3) "Class 1 utilities" means water companies having annual revenues of twenty thousand dollars or more;

(4) "Class 2 utilities" means water companies having annual revenues of less than twenty thousand dollars;

(5) "Customer" means any person, firm, corporation, company, association, governmental unit, lessee who by the terms of a written lease is responsible for the water bill, or owner of property furnished water service by a water company.

(6) "Meter" means any device for measuring the quantity of water used as a basis for determining charges for water service to a customer;

(7) "Premises" shall include but is not restricted to the following:

(A) A building or combination of buildings owned or leased by one customer, in one common enclosure, occupied by one family as a residence or one corporation or firm as a place of business, or

(B) each unit of a multiple house or building separated by a solid vertical partition wall occupied by one family as a residence or one firm as a place of business, or

(C) a building owned or leased by one customer and having a number of apartments, offices or lofts which are rented to tenants using in common one hall and one or more means of entrance, or

(D) a building two or more stories high under one roof owned or leased by one customer and having an individual entrance for the ground floor occupants and one for the occupants of the upper floors, or

(E) a combination of buildings owned by one customer, in one common enclosure, none of the individual buildings of which is adapted to separate ownership, or

(F) a public building, or

(G) a single plot, used as a park or recreational area;

(8) "Property" means all facilities owned and operated by a water company;

(9) "Main" means a water pipe, owned, operated and maintained by a company, which is used for the purpose of transmission or distribution of water but is not a water service pipe;

(10) "Service pipe" means the pipe that runs between the main and the customer's place of consumption.

(Effective April 12, 1978)

#### **Sec. 16-11-51. Records**

All records required by these regulations or necessary for the administration thereof shall be kept within this state, unless otherwise authorized by the commission. Said records shall be available for examination by the commission or its authorized representatives during all reasonable business hours.

(Effective October 18, 1966)

#### **Sec. 16-11-52. Preservation of records**

Unless otherwise specified by the commission, all such records shall be preserved for the period of time specified in the latest edition of the national association of railroad and utilities commissioner's publication, "Regulations to govern the preservation of records of electric, gas and water utilities."

(Effective October 18, 1966)

**Sec. 16-11-53. Documents filed with commission**

The utility shall file with the commission the following documents and information, and shall maintain such documents and information in a current status:

- (1) A copy of the company's tariff, which shall include but not be limited to:
  - (A) A copy of each schedule of rates for service, together with the applicable riders;
  - (B) A copy of the company's rules, or terms and conditions, describing the company's policies and practices in rendering service. These rules shall include: (I) A list of items which the company normally furnishes, owns and maintains on the customer's premises; (II) The utility's extension plan or plans as required in section 16-11-61;
- (2) A copy of each special contract for service which differs from the filed rates;
- (3) A copy of each type of customer bill;
- (4) The name, title, address and telephone number of the person who should be contacted in connection with: (A) General management duties; (B) customer relations and complaints; (C) engineering operations; (D) meter tests and repairs; (E) emergencies during non-office hours.

(Effective August 19, 1992)

**Sec. 16-11-54. Protection against hazards. Assistance to commission**

(1) Every company shall use every effort to warn and protect the public from danger and shall exercise all possible care to reduce the hazard to which customers, employees and others may be subjected by reason of its equipment and facilities.

(2) Every company shall make available to the commission all records, data, reports and statements of employees and shall assist the commission in promptly examining into the causes of and the circumstances connected with each accident which is the subject of commission investigation.

(Effective October 18, 1966)

**Sec. 16-11-55. Sale on meter measurement basis**

(1) All water sold by a utility shall be on the basis of meter measurements or as otherwise provided for in its rate schedules.

(2) Wherever practicable, consumption of water within the utility itself, or by administrative units associated with it, shall be metered.

(3) Separate premises shall be separately metered and billed. Combined billing will not be permitted except on the same premises. Any other arrangement shall require prior approval of the commission.

(4) Submetering shall be permitted only with the approval of the commission.

(Effective October 18, 1966)

**Sec. 16-11-56. Meter reading sheets or cards**

The meter reading sheets or cards shall show:

- (1) The customer's name, address and service classification;
- (2) the identifying number or description of the meter;
- (3) meter readings and dates;
- (4) identification of an estimated bill.

(Effective October 18, 1966)

**Sec. 16-11-57. Reading of meters**

Meters shall be scheduled to be read at least quarterly except for seasonal customers. Utilities shall avoid, insofar as practicable, sending a customer two successive estimated bills. Estimated bills of residential customers shall be rendered in accordance with the provisions of section 16-3-102 of the regulations of Connecticut state agencies.

(Effective June 7, 1978)

**Sec. 16-11-58. Meter test records**

Each utility shall maintain records of each test made of a meter for not less than two years. Test records shall include the following: (1) The date and reason for the test; (2) the type and capacity of the meter; (3) the reading of the meter before making the test; (4) the accuracy “as found” at each rate of flow; (5) the accuracy “as left” at each rate of flow; (6) if the test of the meter is made by using a standard meter, the utility shall retain all data taken at the time of the test in sufficient form to permit the convenient checking of the test methods and the calculations.

(Effective October 18, 1966)

**Sec. 16-11-59. Records relating to meters**

Each utility shall maintain records of the following data, where applicable, for each meter and associated metering device until retirement: (1) The complete identification, including manufacturer, number, type, capacity and units; (2) the dates of installation and removal from service, together with the location.

(Effective October 18, 1966)

**Sec. 16-11-60. Cost for temporary or intermittent service**

When the utility renders temporary or intermittent service to a customer, it may require that the customer bear all the cost of installing and removing the service in excess of any salvage realized.

(Effective October 18, 1966)

**Sec. 16-11-61. Plans for financing main extensions**

Each utility shall file a plan acceptable to the commission providing for financing of extensions of mains. Such plan shall be based upon the following principles:

(1) Mains having a diameter of less than six inches shall not be installed without prior approval of the commission;

(2) when it is determined, in accordance with a predetermined formula on file with the commission, that the anticipated revenues are insufficient to cover all operating expenses and to support the investment, advance payments, contributions or guarantee rates in excess of the regular established rates shall be required.

(3) Costs to be borne by patrons or developers under extension contracts shall be calculated on mains of the size required to serve the customer but shall not be calculated on mains larger than eight inches in diameter unless unusual customer requirements warrant a larger size main. Extension contracts shall include the cost of all service connections, as defined in section 16-11-62 (3), constructed in connection with the installation of new mains by either class 1 or class 2 utilities.

(4) Estimated costs shall be adjusted to actual costs upon completion of the work, except that the use of average costs, excluding paving, may be used under the advance or contributory forms of agreement.

(5) All main extension applications shall be made in writing and a contract executed before start of construction.

(6) When the utility determines, in accordance with a predetermined formula on file with the commission, that the anticipated revenues are insufficient to cover all operating expenses and to support the investment, the following conditions shall apply:

(A) Individual patrons shall be offered a choice of the three following plans: “Guarantee,” “Contributory” or “Refundable advance payment”;

(B) developers having lots for building construction or the sale of homes shall be offered either the contributory or refundable advance payments plans;

(C) all contributions or advances required shall be paid before material is ordered. Material shall be ordered within a reasonable time after receipt of deposit;

(D) no interest shall be paid on advance deposits;

(E) the "Guarantee" plan shall state the amount of the annual guarantee and shall be apportioned equitably among patrons on the extension, and the time of payment shall be specifically set forth;

(F) the "Refundable advance payment" plan shall provide for and state the amount to be refunded for each additional patron taking service from the extension and shall have a termination date. The time of payment shall be specifically set forth;

(G) the "Contributory plan" shall provide for the payment by the developer of the entire cost of the extension less the then present value of the anticipated payments, as determined by the utility, which, under a refundable advance payment plan, would become refundable to the developer;

(H) if a party other than the original patron seeks service from an extension which was constructed under a refundable advance payment contract, such party shall be required to advance an amount to the company representing his equitable share of the cost of the extension, and appropriate refund shall be made to the original patrons;

(I) if an additional party obtains service along an extension serving patrons under guarantee rates, appropriate adjustment shall be made in such guarantee rates.

(7) If an extension contract requires additional facilities, such as standpipes and booster pumps, and such facilities are not necessary to benefit the system as a whole, the cost of such facilities may, with the approval of the commission, be included in the water main extension contract. If facilities larger than required are installed to serve an extension, the company shall pay the excess cost.

(8) If a utility determines, with the Department's approval, that constructing and operating a water system not connected to the utility's existing system is more feasible than extending the utility's existing mains, the utility shall build such a non-connected water system in accordance with (7) above, and account for such construction in accordance with the Uniform System of Accounts. Any such non-connected water system shall be designed to accommodate adjacent growth of at least 10% over the non-connected supply's normal design demand. Any such non-connected water supply shall be constructed in conformance with section 16-11-79 of these regulations. Installing a non-connected water system in lieu of extending a utility's existing mains shall be considered feasible if conditions including, but not limited to, the following prevail: in a development with at least fifteen dwelling units or twenty-five persons, the investment for an extension exceeds \$5000 per dwelling unit or person; viable groundwater sources are present; and adequate fire protection may be provided.

(Effective May 27, 1986)

#### **Sec. 16-11-62. Service connection costs: Class 1 utilities**

In the case of class 1 utilities (1) the utility shall furnish, install, own and maintain at its expense all new service connections, provided the costs of excavation, backfill, and removal and replacement of paving, walks, curbs, etc., necessarily incurred in respect to new services, shall be borne by the customer or other applicant for service;

(2) the utility shall furnish, install, own and maintain at its expense all replacements of service connections, including the cost of excavation, backfill and removal

and replacement of paving, walks, curbs, etc., necessarily incurred in respect to each replacement;

(3) as used herein, service connection means the service pipe from the main to the curb stop, at or adjacent to the street line or the customer's property line and such other valves, fittings, etc., as the utility may require at or between the main and the curb stop, but does not include the curb box. All service connections shall include a curb stop;

(4) the customer at his own expense shall furnish, install, own and maintain the necessary curb box and the service pipe from the curb stop to the place of consumption and shall keep them in good repair and in accordance with reasonable requirements of the utility. A curb box shall be installed at each curb stop;

(5) the utility shall, with the cooperation of the customer, make an adequate inspection of the customer's service pipe in order to determine that it complies with company requirements, and

(6) all replacements and repairs of service connections owned by the utility shall be at its own expense.

(Effective October 18, 1966)

#### **Sec. 16-11-63. Service connection costs: Class 2 utilities**

In the case of class 2 utilities: (1) The customer at his own expense shall furnish, install and maintain all new service pipes from the connection at the main to the curb or property line and shall furnish, install, own and maintain all new service pipes from the curb or property line to the place of consumption, including excavation, backfill, removal, replacement of paving, walks, curbs, etc., and shall keep them in good repair in accordance with reasonable requirements of the utility. A curb stop and box shall be required on each service;

(2) the utility shall, with the cooperation of the customer, make an adequate inspection of the customer's service pipe in order to determine that it complies with company requirements;

(3) the customer at his own expense shall replace and maintain the service pipe from the main in the street to the premises served, including excavation, backfilling and replacement of paving.

(4) the utility shall be responsible for tapping of the main and furnishing the corporation cock for which a reasonable charge may be made.

(Effective July 9, 1968)

#### **Sec. 16-11-64. Location of service pipe**

(a) The service pipe shall extend through that point on the customer's property line or the street line easiest of access to the utility from its existing distribution system and, where practicable, from a point at right angles to the existing distribution line in front of the premises to be served. Service pipes shall not cross intervening properties or operate in place of a proper water main extension running in the street and fronting the property except as noted in subsection (b). The approval of the utility shall be secured as to the proper location for the service pipe.

(b) The utility or property owner, upon written request to the Department of Public Utility Control, and with proper easements in place, may be granted an exception to allow a service pipe to cross intervening properties. The utility or property owner may request such exception only under very exceptional hardship circumstances and then only on a case by case basis. Documentation shall be furnished to demonstrate that the proposed service line will ultimately serve no more than one premises, otherwise the water utility shall install a company-owned

main extension in accordance with Section 16-11-61. The following shall generally not constitute sufficient cause for granting an exception:

(1) When the intent is to avoid the time and expense of a proper main extension, and proper service pipe installation, or other reasonable engineering solution in conformance with good engineering standards of practice, or

(2) When the intent is to perpetuate an existing non-conforming condition through an extension or replacement of an existing non-conforming service pipe, or

(3) When an easement is proposed without sufficient evidence to show that alternative ownership of a suitable strip of land to establish frontage on a road is not feasible.

(Effective October 25, 1988)

#### **Sec. 16-11-65. Meter installation**

(1) Meter installed out of doors shall be so located as to be accessible to the utility's distribution line for proper service connection and so far as practicable the location should be mutually acceptable to the customer and the utility. The meter shall be installed so as to be unaffected by climatic conditions and reasonably secure from injury. Meter pits shall be owned and maintained by the property owner.

(2) Meters installed inside the customer's building shall be located as near as possible to the point where the service pipe enters the building and so as to be reasonably secure from injury and readily accessible for reading and testing. In case of multiple dwellings, such as two-family flats or apartment buildings, the meter shall be located within the premises served or in a location accessible to the customer and the utility.

(Effective October 18, 1966)

#### **Sec. 16-11-66. Maintenance charges**

All maintenance charges, including thawing of frozen services, shall be paid for by the party owning the service. Where the service from the main to inside the cellar wall is in part owned by the company and in part owned by the customer, the water company shall thaw out the frozen service, and one-half the cost thereof shall be paid by the customer.

(Effective October 18, 1966)

#### **Sec. 16-11-67. Information to customers**

Each utility shall:

(1) Furnish rate schedules and such additional information as the customer may reasonably request;

(2) upon request, inform its customers as to how meters are read and the method of computing the charges billed;

(3) notify customers affected by a change in rates or rate classification;

(4) maintain up-to-date maps, plans or records of its entire transmission and distribution systems, with such other information as may be necessary to enable the utility to advise prospective customers, and others entitled to the information, as to the facilities available for service in any locality.

(Effective October 18, 1966)

#### **Sec. 16-11-68. Customer deposits**

(a) Each utility may require from any customer or prospective customer a deposit to guarantee payment of bills. Such deposits shall not exceed an amount equivalent to the estimated maximum bill for ninety days.

(b) A company may not refuse to provide utility service where a residential customer lacks the financial ability to pay a security deposit, which is defined as:

(1) A person receiving local, state, or federal public assistance including but not limited to:

- (A) aid to the blind;
- (B) aid to families with dependent children;
- (C) old age assistance;
- (D) aid to the disabled;
- (E) medicaid;
- (F) supplemental security income; or
- (G) general assistance;

(2) A person whose sole source of financial support is derived from social security, veterans' administration or unemployment compensation benefits;

(3) A person whose income falls below one hundred twenty five per cent of the poverty level as determined by the federal government in accordance with the income poverty guidelines from the regional office of family assistance, department of health, education, and welfare or its successor agency; or

(4) A person whose circumstances threaten a deprivation of the necessities of life for himself/herself or dependent children of his/her household if payment of a security deposit is required.

(c) If a company has determined that a security deposit should be required from a residential customer, it shall inform that customer that service will not be denied if the customer lacks the financial ability to pay, and shall provide him or her with a copy of these regulations.

(d) Each utility having on hand deposits from customers, or hereafter receiving deposits from customers, shall keep records to show:

(1) The name of the customer making the deposit; (B) the account number or other identification of the premises occupied by the customer when the deposit was made;

- (2) the amount and date of making the deposit; and
- (3) a record of each transaction concerning the deposit.

(e) Each utility shall issue a receipt to every customer from whom a deposit is received and shall provide means whereby the depositor may receive his deposit or balance if such receipt is lost.

(f)(1) Interest on any security deposit received from a customer for each calendar year shall be paid at the rate prescribed in section 16-262j of the general statutes. Interest shall accrue daily and shall be paid or credited to the customer's account annually. Accrued interest shall be paid upon return of the deposit if such return is made at other than the annual payment date for interest.

(2) The deposit shall cease to draw interest on the date it is returned, on the date service is terminated, or on the date notice is sent to the customer's last-known address that the deposit is no longer required.

(g) A record of each unclaimed deposit and the interest thereon shall be maintained until the funds are paid over to the state treasurer under the escheat provisions of the general statutes. During this time the utility shall make a reasonable effort to return the deposit and accrued interest.

(h) Deposits may be retained by the utility as long as required to insure payment of bills.

(i) Upon final discontinuance of service the utility may apply such deposit, including accrued interest, to any amount due from the customer for service. Any balance due to the customer shall be promptly refunded.

(i) Deposits shall be returned, together with accrued interest, where satisfactory credit has been established.

(Effective August 19, 1992; amended August 5, 1997)

**Sec. 16-11-69. Bill form**

The bill form used shall show:

- (1) The name of the utility furnishing the service;
- (2) the reading of the meter at the end of the period for which the bill is rendered;
- (3) the present and previous meter reading dates;
- (4) the number and kind of units metered;
- (5) the applicable rate schedule, or identification of the applicable rate schedule;
- (6) the gross or net amount of the bill;
- (7) the date by which the customer must pay the bill in order to benefit from any discount and to avoid any penalty;
- (8) a distinct marking to identify an estimated bill;
- (9) any conversions from meter reading units to billing units or, in lieu of such information, a statement advising that such information can be obtained by contacting the utility's principal office;
- (10) the address or post office box where payment may be made;
- (11) telephone number of officers where information may be obtained.

(Effective October 18, 1966)

**Sec. 16-11-70. Customer billing records**

The utility shall retain customer billing records for the length of time necessary to permit the utility to comply with section 16-11-52 of these regulations.

(Effective October 18, 1966)

**Sec. 16-11-71. Adjustment of bills**

Bills which are incorrect due to meter or billing errors shall be adjusted as follows:

(1) Whenever a meter in service is tested and found to have over-registered more than two per cent, the utility shall adjust the customer's bill for the excess amount paid as determined below.

(A) If the time at which the error first developed or occurred can be definitely determined, the amount of overcharge shall be based thereon.

(B) If the time at which the error first developed or occurred cannot be definitely determined, it shall be assumed that the over-registration existed for a period equal to one-half of the time since the meter was last tested. If more than one customer received service through the fast meter during the period for which the refund is due, a refund shall be paid to the present customer only for the time during which he received service through the meter. (2) Whenever a meter in service is found not to register, the utility may render an estimated bill. The utility shall estimate the charge for the water used by averaging the amount registered over a similar period preceding or subsequent to the period of nonregistration or for a corresponding period in previous years, adjusting for any changes in the customer's usage. When it is found that the error in a meter is due to some cause, the date of which can be fixed, the overcharge or the undercharge shall be computed back to but not beyond such date. (3) Billing adjustments due to fast meters shall be calculated on the basis that the meter should be one hundred per cent accurate. For the purpose of billing adjustment, the meter error shall be one-half of the algebraic sum of the error at maximum test flow plus the error at intermediate test flow. (4) When a customer has been overcharged as a result of incorrect reading of the meter, incorrect calculation of

the bill, incorrect connection of the meter or other similar reasons, the amount of the overcharge shall be adjusted, refunded or credited to the customer. (5) When a customer has been undercharged as a result of incorrect reading of the meter, incorrect calculation of the bill, incorrect connection of the meter or other similar reasons, the amount of the undercharge may be billed to the customer.

(Effective October 18, 1966)

**Secs. 16-11-72—16-11-73.**

Repealed, August 19, 1992.

**Sec. 16-11-74. Restoration of discontinued service**

In all cases of discontinuance of service as herein defined, where the cause for discontinuance has been corrected and all rules of the utility on file with the commission have been complied with, the utility shall promptly restore service to the customer.

(Effective October 18, 1966)

**Sec. 16-11-75. Reconnection charge**

Where service has been discontinued in accordance with subsection (b) of Section 16-3-100 of the Regulations of Connecticut State Agencies, the utility may make a reasonable charge for reconnection of service. Such charge shall be applied uniformly and shall be incorporated in the rules of the utility.

(Effective August 19, 1992)

**Sec. 16-11-76.**

Repealed, August 19, 1992.

**Sec. 16-11-77. Complaints**

For the purpose of this section, “complaint” means objection to the charge, facilities or quality of service of a utility. When a complaint, oral or written, is made to the utility by a customer, the utility shall make a prompt and complete investigation and advise the complainant thereof. It shall keep a record of each such complaint which shall show the name and address of the complainant, the date and nature of the complaint and the adjustment or disposition thereof. A record of the original complaint shall be kept for a period of three years subsequent to the final settlement of the complaint.

(Effective October 18, 1966)

**Sec. 16-11-78. Identification of employees**

Any employee of a utility whose duties require him to enter the customer’s premises shall wear a distinguishing uniform identifying him as an employee of the utility, or carry on his person a badge or other identification prominently displayed which will identify him as an employee of the utility.

(Effective October 18, 1966)

**Sec. 16-11-79. Design and construction of plant**

The design and construction of the utility’s water plant shall conform to good standard engineering practice, including the minimum standards of the American Water Works Association. It shall be designed to make reasonable provision for the company’s water supply requirements for a period of at least fifteen years and operated so as to provide reasonably adequate and safe service to its customers and

shall conform to the requirements of the state department of health with reference to sanitation and potability of water.

(Effective October 18, 1966)

**Sec. 16-11-80. Mains. Service pipes**

(1) Mains. (A) Water mains shall be placed at such a depth below ground level, or otherwise protected, as will prevent freezing during the coldest weather experienced in the community in which laid, and will prevent damage to traffic. (B) Insofar as practicable, the utility shall design its distribution system so as to avoid dead ends in its mains. Where dead ends are necessary, the utility shall provide hydrants or valves for the purpose of flushing the mains. Mains with dead ends shall be flushed as often as necessary to maintain the quality of the water. (C) Valves or stop cocks shall be provided at reasonable intervals in the mains so that repairs may be effected by the utility with interruptions of service to a minimum number of customers. (D) All new mains shall be disinfected before being connected to the system. The method of disinfecting shall be in compliance with state department of health practices. (E) Wherever feasible, the distribution system shall be laid out in a grid so that, in case of breaks or repairs, the interruptions of service to the customers shall be at a minimum.

(2) Service pipes. (A) The size, design, material and installation of the service pipe shall conform to such reasonable requirements of the utility as may be incorporated in its rules, provided the minimum size of the pipe shall not be less than three-quarters inch nominal size except under unusual circumstances which shall be clearly defined. (B) All service pipes shall be laid at such a depth in accordance with the rules of the utility as will prevent freezing, except where services are not intended for use during freezing weather and are actually drained during such periods. (C) The utility shall inspect the service pipe to assure that it has been installed at proper depth and is free from any tee, branch connection, irregularity or defect.

(3) Whenever normal excavation discloses an unsatisfactory soil condition, one or more of the following corrective measures shall be employed: (A) Excavate to good bearing soil and backfill to pipe grade with suitable material well tamped to provide adequate support; (B) support with a concrete slab; (C) support with piling.

(4) Pipe on a highway bridge shall be located so as to reduce hazard to a minimum and shall be protected from freezing.

(5) In the case of pipes laid in trench as with other facilities: (A) Water mains shall be laid clear of all other underground facilities; (B) water mains may be laid in the same trench with other underground utility facilities except gas, oil or sewer pipes, provided at least eighteen inches separation, in a horizontal plane, shall be maintained and provided such arrangements shall be mutually acceptable to the parties concerned; and (C) water services may be laid in the same trench with other underground utility facilities except oil or sewer pipes, provided twelve inches separation, in a horizontal plane, shall be maintained and provided such arrangements shall be mutually acceptable to the parties concerned; (D) at crossings of mains and services with other underground facilities, clearances wherever possible shall be not less than twelve inches; (E) to secure compliance with the requirements of these regulations by others doing underground construction work, the utility shall arrange with the other agencies having highway subsurface rights for adequate notification and inspection procedure.

(6) Pipe laid shall be tested and made tight before being placed in service.

(7) The ditch underneath, around and over the pipe shall be backfilled with good material thoroughly tamped to secure a firm support. To disclose any settlement of

the backfill which may need correcting, newly filled ditches shall be reinspected at intervals.

(8) The service connection at the main or the run of service pipe shall allow for a reasonable amount of flexibility to prevent fracture or leaks at the connection with the main.

(Effective October 18, 1966.)

**Sec. 16-11-81. Meter testing equipment**

(1) Each utility furnishing metered water service shall provide the necessary standard facilities instruments and other equipment for testing its meters in compliance with these regulations. Any utility may be exempted from this requirement by the commission if satisfactory arrangements are made for tests of its meters by another utility or approved agency equipped to test meters in compliance with these regulations. (2) The utility's meter test shop shall, insofar as practicable, simulate the actual service conditions of temperature, inlet pressure and outlet pressure. It shall be provided with the necessary fittings, including a quick acting valve for controlling the starting and stopping of the test and a device for regulating the flow of water through the meter under test within the requirements of these regulations. (3) The over-all accuracy of the test equipment and test procedures shall be sufficient to enable tests of service meters within the requirements of these regulations. (4) Where a standard test meter is used for field testing of service meters, such device shall be checked in an approved meter shop for accuracy at least once a year, adjustments made when necessary and a record kept of such tests and adjustments.

(Effective October 18, 1966.)

**Sec. 16-11-82. Pre-installation testing. Storage**

Every water meter shall be tested as required by these regulations prior to its installation either by the manufacturer, the utility or any commission approved laboratory equipped for meter testing. Meters with oil-enclosed gear trains should be stored in an inverted position and, if not so stored, shall be tested immediately before installation.

(Effective October 18, 1966.)

**Sec. 16-11-83. Test flows**

(1) All meters used for measuring the quantity of water delivered to a customer shall be in good mechanical condition and shall be adequate in size and design for the type of service which they measure and shall be accurate to the following standards. (2) For determination of minimum test flow over normal test flow limits, the commission will use as a guide the appropriate standard specifications of the American Water Works Association for the various types of meters. These test flows for positive displacement type cold water meters are as follows:

<u>FLOW IN G.P.M.</u>			
<u>Nominal Meter Size</u>	<u>Minimum</u>	<u>Intermediate</u>	<u>Maximum</u>
5/8"	0.25	2	15
3/4"	0.50	3	25
1"	0.75	4	40
1 1/2"	1.50	8	80
2"	2.00	15	120
3"	4.00	20	250
4"	7.00	40	350
6"	12.00	60	700

(3) Displacement meters shall be tested at each of the rates of flow stated above for the various size meters. A meter shall not be placed in service if it registers less than ninety-five per cent of the water passed through it at the minimum test flow or over registers or under registers more than one and one-half per cent at the intermediate or maximum limit. A repaired meter shall not over register or under register more than one and one-half per cent of the intermediate and maximum flows. (Effective October 18, 1966.)

**Sec. 16-11-84. Periodic and complaint tests**

All meters tested in accordance with these regulations for periodic or complaint tests shall be tested in the condition in which found in the customer's service prior to any alteration or adjustment in order to determine the average meter error. Tests shall be made at the intermediate and maximum rates of flow and the average meter error shall be one-half the algebraic sum of the errors of the two tests.

(Effective October 18, 1966)

**Sec. 16-11-85. Seal**

Upon completion of adjustment and test of any water meter under the provisions of these regulations, the utility shall affix thereto a suitable seal in such a manner that adjustment or registration of the meter cannot be changed without breaking the seal.

(Effective October 18, 1966)

**Sec. 16-11-86. Reports of tests**

Each utility shall furnish to the commission, at intervals not exceeding one year, a report of the summary of all meter tests made. This report shall be in such detail as may be prescribed by the commission from time to time.

(Effective October 18, 1966)

**Sec. 16-11-87. Restoration of meters removed from service**

All water meters removed from service for repair or testing in accordance with these regulations shall be restored to the prescribed limits of accuracy as required by these regulations before again being placed in service.

(Effective October 18, 1966)

**Sec. 16-11-88. Periodic and routine tests**

Each utility shall adopt the following periodic and routine test and repair schedule of its meters:

<i>Size of Meter Inches</i>	<i>Interval between Test Years</i>
5/8	8
3/4	8
1	8
1 1/2	4
2	4
3	3
4	2
6 & larger	1

(1) If a utility's meters are maintained in compliance with the provisions for meter testing herein and in accordance with the above schedule, (or as the test interval

has been extended in part as described below), and if the utility has consistently demonstrated satisfactory compliance in its annual meter test report submissions to the Authority over the most current consecutive three-year period including the condition that the utility has not exceeded an amount of overdue meters equal to ten percent (10%) of the total due tests in any year over that three-year period, and if at least ninety percent (90%) of the meters so tested register an accuracy of not less than ninety-six percent (96%) nor more than one hundred two percent (102%) during the given three-year period, such utility, upon request, may be granted an extension in the time interval between test years. Such extension shall be in an increment of two years and shall apply only to those meters in sizes of five-eighths inch, three-quarters inch and one inch. Requests for subsequent two-year increment extensions shall require the same satisfactory annual test reporting and minimum three-year accuracy history and maximum allowed ten percent overdue meters, as described above, for the then current test interval meters. The maximum allowed meter test interval period shall be sixteen years.

(2) If a utility's water meter testing program does not comply in whole or in part with the standards and requirements prescribed in subsection (1) above during a consecutive three-year period, the time interval between test years for those meters in sizes of five-eighths through one inch may be reduced by the Authority to a period not less than six years.

(Effective December 7, 1978)

#### **Sec. 16-11-89. Tests on request of customers**

Each utility shall, upon written request of a customer and, if he so desires, in his presence, or that of his authorized representative, make without charge a test of the accuracy of the meter in use at his premises, if the meter has not been tested by the company within the period of one year previous to such request and provided the customer shall agree to abide by the results of such test as the basis for any adjustment of disputed charges. Upon such request by a customer, or upon an order for a meter test made by the department, the company shall notify the customer, in writing and within one week of the request for the meter test, that he, or his authorized representative, has the right to be present at the meter test. If said customer, or his authorized representative, desires to be present at the meter test, the customer or his authorized representative shall contact the company within 10 (ten) days of the written notification to arrange to be present at the test. Upon such notification, the company shall schedule a meter test, at a time during the normal operating hours of the company's meter testing facility, which is convenient to both the customer, or his authorized representative, and the company, as soon as possible. A written report of the results of the test shall be furnished the customer.

(Effective May 22, 1992)

#### **Sec. 16-11-90. Test by commission**

(1) In accordance with section 16-259 of the general statutes, the commission, upon request, shall cause to be tested for accuracy the water meter at a customer's premises.

(2) A water company, after notification by the commission that a test is to be made pursuant to the provisions of said section 16-259, shall not adjust, disturb or remove the meter in question, except as directed by an authorized representative of the commission.

(Effective October 18, 1966)

**Sec. 16-11-91. Standard installation method**

Each water utility shall adopt a standard method of meter installation. Such method shall be set out with a written description or drawings to the extent necessary for a clear understanding of the requirements. Copies of approved standard methods shall be made available upon request to prospective customers, contractors or others engaged in the business of placing pipe for water utilization. All meters shall be set in place by the utility or its agent.

(Effective October 18, 1966.)

**Sec. 16-11-92. Registration devices**

All meters used for metered sales shall have registration devices indicating the volume of water in either cubic feet or United States gallons. Where a constant or multiplier is necessary to convert the meter reading to cubic feet or gallons, the constant shall be indicated upon the face of the meter and on the meter reading sheet or card.

(Effective October 18, 1966.)

**Sec. 16-11-93. Charges to customers for devices**

No utility shall charge for the installation of any devices for metering service to a customer, except for temporary service where the utility may charge the actual cost of installation and removal of metering devices. The customer shall pay for any special device requested.

(Effective October 18, 1966.)

**Sec. 16-11-94. Sanitation standards**

(1) Any utility furnishing water service for human consumption or domestic use shall conform to all requirements of the state department of health for construction and operation of its water system as pertains to sanitation and potability of the water.

(2) Each utility shall have representative samples of the water supplied by it tested and analyzed by the state or local departments of health or by a competent chemist and bacteriologist, at intervals sufficient to insure a safe water supply.

(3) If the above-prescribed tests show that the water furnished by the utility is contaminated or otherwise unsafe for human consumption, the utility shall forward a report of such test to the commission or other state agency having correctional jurisdiction without delay, and shall take immediate steps to correct the condition. Reports of corrective action shall then be forwarded to the commission.

(Effective October 18, 1966.)

**Sec. 16-11-95. Standard pressure**

(1) Each utility shall, subject to the approval of the commission, adopt and maintain a standard pressure in its distribution system at locations to be designated as the point or points of "standard pressure." At one such point a recording pressure gauge shall be maintained in continuous service.

(2) Under normal conditions of use of water the pressure at a customer's service connection shall be not less than 25 p.s.i.g. and not more than 125 p.s.i.g.

(3) Pressure outside the limits specified will not be considered a violation when the variations arise from:

- (A) The action of the elements;
- (B) infrequent fluctuations not exceeding five minutes duration;
- (C) service interruptions;
- (D) causes beyond the control of the utility;

(E) service elevations.

(4) At regular intervals, each utility shall make a survey of sufficient magnitude of pressures in its distribution system to indicate the quality of service being rendered at representative points on its system. Such surveys shall be made during periods of high usage at or near the maximum usage during the year. The pressure charts for these surveys shall show the date and time of beginning and end of the test and the location at which the test was made. Records of these pressure surveys shall be maintained for a period of six years at the utility's principal office in the state and shall be made available to the commission upon request.

(Effective October 18, 1966.)

**Sec. 16-11-96. Interruptions in service**

(1) Each utility shall give prompt notice to the commission by telephone during regular business hours of all interruptions, except those occurring in the course of routine operations, to, or major impairment of, service for periods of duration of four hours or more occurring on production works, storage works, transmission mains or distribution mains or of accident or damage to portions of the plant which might lead to such interruptions of service. Such notice shall be confirmed in writing within five days.

(2) Each utility shall make all reasonable efforts to prevent interruptions of service and, when such interruptions occur shall endeavor to reestablish service with the shortest possible delay consistent with the safety of its customers and the general public. Where an emergency interruption affects fire protection service, the utility shall immediately notify the fire chief or other responsible local official.

(3) Whenever any utility finds it necessary to schedule an interruption to its service, it shall make all reasonable effort to notify all customers to be affected by the interruption, stating the time and anticipated duration of the interruption. Whenever possible, scheduled interruptions shall be at such hours as will provide least inconvenience to the customer.

(4) Every utility shall maintain records of interruptions for a period of at least two years.

(Effective October 18, 1966.)

**Sec. 16-11-97. Restrictions on water use**

(1) The utility shall exercise reasonable diligence to furnish a continuous and adequate supply of water to its customers and to avoid any shortage or interruptions of delivery thereof.

(2) If a utility finds that it is necessary to restrict the use of water, it shall notify its customers, and give the commission written notice, before such restriction becomes effective. Such notifications shall specify:

(A) The reason for the restriction;

(B) the nature and extent of the restriction, i.e., on outdoor use of water, use by certain classes of customers, etc.;

(C) the date such restriction is to go into effect;

(D) the probable date of termination of such restriction.

(3) During times of threatened or actual water shortage, the utility shall equitably apportion its available water supply among its customers with due regard to public health and safety.

(Effective October 18, 1966)

**Sec. 16-11-98. Reconstruction not required**

Sections 16-11-50 to 16-11-97, inclusive, shall not be constituted to require general reconstruction or re-equipping to conform with the provisions contained therein.  
(Effective October 18, 1966)

**Standby Power Regulations for Water Companies****Sec. 16-11-99. Definitions**

For purposes of Sections 16-11-99 through 16-11-99d of the regulations:

- (a) "Department" shall mean the Department of Public Utility Control.
- (b) "Company" shall mean a water company as defined in Section 16-1 of the General Statutes of Connecticut, relying on groundwater as its source of supply.
- (c) "Average Daily Demand" shall mean the normal water usage of the system as determined for the most representative twenty-four (24) hour period of record not affected by unusual demand conditions such as drought or a significant temporary increase in demand.
- (d) "Standby Power" shall mean an alternative source of providing power in the event of an electrical outage.
- (e) "Standby Power Equipment" shall include permanent and portable generators, engine-driven pumps, or other mechanical drive equipment.
- (f) "Sufficient Standby Power Capacity" shall mean the ability of a company to supply 100% of the average daily demand of its system, or of each division if the company's system is comprised of multiple divisions, and satisfy the requirements of the Connecticut Department of Health Services concerning purity and adequacy of water.
- (g) "Facility Location" shall include pumping stations, treatment plants, storage tanks, and such other plant where electric power is required to satisfy the design criteria for sufficient standby power capacity, provided in Section 16-11-99 (f) of these regulations.

(Effective June 22, 1990)

**Sec. 16-11-99a. Permanent and portable generators**

(a) Each company shall provide permanently installed gasoline, propane-fueled, natural gas or oil-fired standby power equipment at such facility locations as are necessary to provide sufficient standby power capacity. The prior approval of the Connecticut Department of Health Services shall be required for the installation of standby power equipment at a facility location.

(1) Portable generators with sufficient standby power capacity may be considered acceptable as an alternative to an on-site generator. Such portable generators may be used only if there are suitable controls, connections and manual or automatic switches in the pumphouse that are operational as of the effective date of Sections 16-11-99 through 16-11-99d.

(2) Portable generators shall be owned or leased at all times by the company, by a subsidiary of the company, by the parent of the company, or by a corporation with the same parent as the company.

(3) Portable generators must be ready to provide power within four hours of an electrical outage, unless the company has sufficient atmospheric storage to provide safe and adequate service, in conformance with the requirements of the Connecticut Department of Health Services concerning purity and adequacy of water, for up to

twenty-four hours without electric power, but in no event shall standby power not be provided more than twenty-four hours after the occurrence of an electrical outage.

(4) Each company providing standby power through the use of a portable generator or portable generators shall report to the Department the type and capacity of the generator or generators, the location where the generator or generators are regularly stored, and the site or sites where the generator or generators will be employed, no later than the implementation date provided in Section 16-11-99c.

(b) Fuel storage may be above ground or below grade, and shall comply with all pertinent statutes, regulations, and codes, except that a direct buried tank shall not be permitted. A containment area capable of holding the full volume of the fuel tank shall be provided, except for propane and natural gas. The fuel tank shall be properly located to protect the water source from accidental spills. Review by, and the approval of the Connecticut Department of Health Services, shall be required prior to the installation of a fuel storage tank.

(c) Sufficient fuel storage capacity shall be provided for the generation of standby power by permanently installed standby power equipment for at least twenty-four (24) hours, and by portable generators for at least eight (8) hours.

(d) Each company shall test standby power equipment, at the site where the standby power equipment will be employed, at least once in every consecutive thirty (30) day period, under load, for a minimum duration of thirty (30) minutes, and shall maintain a record of the results of such test. Each company shall perform maintenance of its standby power equipment in accordance with the manufacturer's specifications, at least once in every consecutive twelve (12) month period, and shall maintain a record of equipment maintenance. Each company shall submit a report on its standby power equipment testing results and on its equipment maintenance program to the Department, and to the Connecticut Department of Health Services, annually on or before the last day of January following the close of each calendar year.

(e) Each company shall notify the local electric utility of the provisions for standby power made by the company, including but not limited to the operating capacity and characteristics of the generating units. Installation of any standby power equipment shall not be made with the electric utility system without the express written approval of the electric utility.

(Effective June 22, 1990)

#### **Sec. 16-11-99b. Exemptions**

(a) The provisions of sections 16-11-99 through 16-11-99d shall not apply to a company, as defined in section 16-11-99 (b) of these regulations, to the extent that the company is able to supply 100% of the average daily demand of its system, or of a division of its system if the company's system is comprised of multiple divisions, and satisfy the requirements of the Connecticut Department of Health Services concerning purity and adequacy of water, by (1) gravity alone, for a consecutive period of twenty-four (24) hours without electric power, or (2) by an interconnection with a system that is able to supply 100% of the average daily demand of both the interconnected and interconnecting systems by gravity alone.

(b) Each company seeking an exemption from these regulations pursuant to subsection (a) of this section shall make a written application for the approval of the Department of such an exemption. Such application shall contain a statement of the facts and supporting documentation sufficient to indicate that the condition or conditions for exemption provided by subsection (a) of this section are met by the company.

(c) The department shall make a determination to approve or to deny the application for an exemption within sixty (60) days of receipt of the application, except that the sixty (60) day requirement may be waived in writing by the company.

(Effective June 22, 1990)

**Sec. 16-11-99c. Implementation**

(a) Each company shall comply with the requirements of Sections 16-11-99 through 16-11-99d as soon as practical, but no later than three years from the effective date of these regulations. Each company shall provide written notice of compliance to the Department, and to the Connecticut Department of Health Services, including evidence of an interconnection if an exemption from these regulations is requested pursuant to Section 16-11-99b of these regulations.

(b) In the event that a company, which was determined by the Department to be exempt from these regulations pursuant to Section 16-11-99b, ceases to meet the conditions for exemption provided by Section 16-11-99b, such company shall provide written notice of its non-compliance to the Department, and to the Connecticut Department of Health Services, within thirty (30) days of the commencement of non-compliance, and shall provide written notice of compliance with these regulations to the Department, and to the Connecticut Department of Health Services, within one year from the date non-compliance commenced.

(Effective June 22, 1990)

**Sec. 16-11-99d. Penalties**

Each company that fails to comply with the requirements of Sections 16-11-99 through 16-11-99d shall be subject to the civil penalty provided for in Section 16-41 of the General Statutes.

(Effective June 22, 1990)

**Code of Electrical Standards and Specifications**

(Effective July 30, 1968)

**Part I**

**General Practices and Operation of Electrical Systems**

**Sec. 16-11-100. Definitions**

As used in sections 16-11-100 to 16-11-152, inclusive, and sections 16-11-236 to 16-11-238, inclusive:

(a) "Utility" means a railroad, electric, telephone or telegraph company, owning, leasing, maintaining, operating, managing or controlling plants or parts of plants or equipment within this state, but shall not include towns, cities, boroughs or any municipal corporation or department thereof, whether separately incorporated or not;

(b) "Municipality" means a town, city, borough or any municipality or department thereof, owning, leasing, maintaining, operating, managing or controlling electric plants or parts of electric plants within this state;

(c) "Electric company" shall not include a municipality, but means every corporation, company, association, joint stock association, partnership, or person, or lessee thereof, owning, leasing, maintaining, operating, managing or controlling poles, wires, conduits or other fixtures along public highways or streets, for the transmission or distribution of electric current for light, heat or power within this state, or engaged in generating electricity to be so transmitted or distributed for such purpose;