Dear Members & Guests:

“If I had my life to live over again, I'd be a plumber.” – A. Einstein

Obviously, Albert Einstein knew what he was talking about, one of greatest minds in history.

We are a special breed of engineers and contractor. We are tight knit community with fraternity and sorority loyalty. Be proud of your contributions to our field. We are equally as important and sometimes more important than our Mechanical & Electrical counterparts.

September is just around the corner and I hope we all enjoyed our summer, and making it count, with family vacation, and the annual fishing trip and our newly named, the first Edmund Wallace Annual Golf Classic. With renew rejuvenation; let's start the fall with enhancing our knowledge. The place where it all happens in the Big Apple is the next ASSE/ASPE meeting Wednesday, September 1. We are kicking off the fall season with a presentation on an innovative technology in Fire Protection. Guy Vande Vaart will speak about “Hi-Fog” pressure mist system technology and its application in data centers, mechanical rooms and generator rooms just to name a few. This is an alternative when gaseous fire suppression and conventional sprinkler system are not the answer. This is also consideration when water damage exceeds the actual fire damage. Please come out and see for yourself, there will be literature available brought to you by our sponsors Empire Solutions and Marioff, Inc.

Look out for our new NY Chapter website coming to a computer near you. The details will follow.

I also would like to thank Harold Mermel for an outstanding presentation back in June on “What’s New” in Acid Neutralizing systems. Please check out the presentation in this issue.

We look forward to seeing some old faces and new. Please come out and support your societies and enjoy yourselves.

Dominick Agostino
ASSE New York Chapter President

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### ASSE/ASPE JOINT MONTHLY MEETING

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Speaker</th>
<th>Location</th>
<th>Time</th>
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<tbody>
<tr>
<td>Wednesday, September 1, 2010</td>
<td>“Hi-Fog” pressure mist system technology and its application</td>
<td>Guy Vande Vaart, Empire Solutions</td>
<td>Heartland Brewery 127 West 43rd Street New York, NY 10036</td>
<td>Pre-Meeting Social 5:15pm - 6:00pm  Technical Session 6:00pm - 7:00pm</td>
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**2010 ASSE/ASPE Societies Meeting Schedule**

<table>
<thead>
<tr>
<th>Date</th>
<th>Speaker</th>
<th>Topic</th>
<th>Sponsor</th>
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<tr>
<td>Sept. 1</td>
<td>Guy Vande Vaart of Empire Solutions</td>
<td>High Pressure Water Mist Fire Suppression Systems</td>
<td>Empire Solutions</td>
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<tr>
<td>Oct. 6</td>
<td>DEP</td>
<td>Grease Interceptor News</td>
<td>Open</td>
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<tr>
<td>Nov. 3</td>
<td>Jeff Ingerton of Gastite Systems</td>
<td>Intelligent Use of Corrugated SS Tubing</td>
<td>Gastite Systems</td>
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<tr>
<td>Dec 1</td>
<td>Holiday Social</td>
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### Calendar of Events

**August 30, 2010**
1st Edmund D. Wallace Memorial
ASSE/ASPE Joint Golf Classic
Hamlet Wind Watch Golf Club
Hauppauge, NY

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The ASSE Bulletin is a publication of the New York Chapter of the American Society of Sanitary Engineering. The Society or Chapter assumes no responsibility for any advertisements, statements by any officer or member which may be construed as an approval or disapproval, or official position of the Society, of the material contained herein. Local Chapters are not authorized to speak for the Society.
American Society of Sanitary Engineering
FOR SANITARY AND PLUMBING RESEARCH
901 Canterbury Road, Suite A, Westlake, OH 44145-1480 U.S.A
Tel: (440) 835-3040 FAX: (440) 835-3488
www.asse-plumbing.org E-MAIL: membership@asse-plumbing.org

“Prevention Rather Than Cure”

ASSE is a non-profit, standard developing association accredited by the American National Standards Institute (ANSI) and National Institute of Standard and Technology (NIST). Our society was founded in 1906 and is one of the oldest engineering societies in the United States. We are here for the purpose of promoting public health through better plumbing and sanitary research.

Members of ASSE belong to an organization represented by all segment of the plumbing and fire protection industry, forming a platform to receive, understand, and solve industry problems related to Code, Engineering, Contracting, Sales, and Business. It is through the support and involvement of our members that we as a society continue to grow. We encourage you to become involved in our chapter and national activates. Whether you volunteer on a committee, plan a chapter event, or are a guest speaker at our next meeting, your involvement is essential to ASSE’s future.

Here are some of the privileges you enjoy as an ASSE member:

- Discounts on all ASSE publications (members’ number is required).
- Free subscriptions to Plumbing Standards Magazine.
- Free technical assistance.
- National awards, including the Quarter Century Award, the Fellow Award, and the Henry B. Davis Award.
- Networking with all segments of the plumbing and pipe fitting industries.
- ASSE members and their relatives are eligible to receive the ASSE National Scholarship.
- ASSE members are eligible for nomination to the position of Director, which brings a long with it industry recognition.

Now is the time to plan ahead and get involved in ASSE. Working together, we can achieve our goals for greener and safer plumbing and fire protection. Remember our motto, “Prevention Rather Than Cure.” This is an opportunity for you to invest in your future and grow and become a leader within the Plumbing Engineering Community.

If you have any questions or concerns regarding the above information or about how to become an ASSE member please feel free to contact our membership committee chairman at gtdipietro@gmail.com and we will be happy to assist you.

Within this bulletin you will find an ASSE Membership application. Fill out the application form and include your check made payable to A.S.S.E and mail it to...
American Society of Sanitary Engineering
FOR PLUMBING AND SANITARY RESEARCH
An ANSI Accredited Standards Developer and Product Certification Agency
901 Canterbury Road, Suite A • Westlake, Ohio 44145-1480
Telephone: 440-835-3040 • Facsimile: 440-835-3488
E-Mail: general.info@asse-plumbing.org • Website: www.asse-plumbing.org

ASSE NEW YORK CHAPTER MEMBERSHIP APPLICATION
(PRINT OR TYPE)

□ Mr. □ Ms. First Name __________________________ Middle Initial _______________ Surname __________________________

Check Applicable Title: □ P.E., □ Engineer, □ Designer, □ CADD Drafter, □ Master Plumber, □ Plumber, □ MFR,
□ MFR’s Rep, □ Construction Eng., □ Govt. Agency, □ Contractor, □ Other (Explain) __________

Check if Desired: □ I would like to be considered for a one year Director’s position in the Society.

REGISTRATION (P.E.):
State: _______ Certificate No. _______ Branch: _______

Home Mailing Address __________________________ City ____________________ State _________ Zip__________

Home Phone (  )_______________________ Fax (  )________________________ E-mail _____________________________

Company Name ________________________________________ Business Address ______________________________________

City ________________________ State _______ Zip________ Phone (  )___________________ Fax (  )__________________

E-mail __________________________________________________________________________

EDUCATION:

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<tr>
<th>Name of School</th>
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<td>NYU Fire Protection Course</td>
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<td>Mechanics Institute</td>
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<td>NYU Plumbing Course</td>
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<td>Others</td>
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Applicant:
I certify that all statements made herein are correct. I agree that if admitted to the Society, I will be governed by its rules as long as my membership shall continue; and that I will promote the objectives of the Society and plumbing engineering profession.

Signature of Applicant _______ Date _______

Make check payable to:
American Society of Sanitary Engineering

Forward to:
American Society of Sanitary Engineering
901 Canterbury Road, Suite A
Westlake, OH 44145-1480

Sponsor: __________________________

Submit Membership Dues with Application

<table>
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<td>Application fee (except students)</td>
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<td>TOTAL AMOUNT DUE</td>
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Payment: (Check One)
□ Enclosed is my check payment payable to ASSE.
□ Please invoice me for membership ($5.00 service charge may be added).

*With proof of employment by a Federal/State/Municipal or County Agency.
+ First year active membership.
Minutes of June Meeting

6:15 pm The meeting was called to order

6:30 pm ASSE/ASPE Technical Presentation given on Wednesday, June 2, 2010

Speaker:

Harold Mermel, Sales Manager
Town and Country Plastics
PO Box 269
Morganville, NJ 07751
732-780-5300
www.tandcplastics.net

Note: the following is not a verbatim translation of the presentation, rather some general points of discussion.

Harold thanked Dom Agostino for inviting him and asking him to speak at our meeting. I have spoken at both chapters over the years and a number of chapters throughout the country. I have been a member of both chapters for 38 years. I am also a founding member of the NYC Chapter. This will be generic talk. Except I do want to mention that we have been approved by every agency in NYC, Long Island, Westchester, New Jersey and around the country, including the SCA, DEP, Suffolk County health Department, The City of White Plains, State Dormitory Authority, State University Construction Fund, building Department, Health Department, Health and Hospital. So we have been around and agencies have recommended us to engineers from outside the area. I will be covering current code requirements which have been changing over the years. I will bring you up to date on what is currently required in the NYC Metro Area. There have been a number of changes throughout the years and I will bring you up to date. I will be answering any questions that you may have. The requirements for Suffolk County Health Department are stricter than NYC. They have a lot of pollution in the ground out there. Besides neutralization in many cases, they require that you collect the waste in a holding tank underground that is chemically resistant and then it has to be hauled away even after you treat it. Suffolk County is the strictest in the area. White Plains requires special tanks, which are different than anywhere in the United States.

They require two elbows and dip tubes on their tanks. Out literature have pictures of all that I am talking about. If you have any questions about any tank for this area or outside this area, we will be happy to answer those requirements for you.

A side note, as of lately we have become involved with rain water. The New York City Plumbing Code and the New York State Plumbing Code now require blue die injection for use of that water.

NYC requires treatment of all waste to be neutralized and or diluted no matter what the wastes are, whether its battery acid or photographic waste. NYC DEP is the stricter agency that you have to deal with. You have to file with them and fill out special forms. They require silver recovery units prior to neutralization and dilution. If you have X-ray or photographic waste, you must do silver recovery treatment. It is the only product that pays for itself, because it extracts the silver salts. Once it gets filled up we have people that will pay you money for the silver salts and you exchange it for another unit in its place. It is not a requirement for all areas but it is good practice to use one or the silver salts will clog up your limestone neutralization systems. The silver salts will coat the stones and prevent them from reacting with the chemicals.

Acid venting cannot be less than 1 size of the waste line for centralized systems. For individual neutralizers you don’t vent the tank you vent the line right after. The code requires that within 18” of the outlet that you run a sanitary vent on the line to get good flow out of the acid neutralizer and to vent the line. On an acid waste system you should run the same size vent as the drain line. Then again if it a 6” then it should be a 6” or 4” vent line, not half size.

Q. Do you need a vent before it goes into the centralized acid neutralizer?

A. If you’re going right into the neutralizer you do not need a vent. But if you have any distance between the drain line and the tank you need to run an acid vent line prior to the tank to get good drainage into the system, as an air intake as well as a vent.

You need to vent your tank, which is a code requirement because you are going to get percolations and fumes developing in the tank. You need to make sure your covers are sealed, you do not want to over torque your covers because then you can develop
‘hills’ and ‘valleys’ and fumes would then seep into the room. You need to make sure that there is good ventilation in the rooms. On a
centralized system you need to vent the line after the neutralization system as well. You need to run a running trap after that vent
before you tie into the sanitary. It is not a code requirement or written anywhere; it is general good practice. The reason for this is the
odors that will develop back into the neutralization system are horrendous.

We recommend that you install a sanitary running trap and after that a sanitary vent which ties into the regular sanitary vent
system. If you are running an acid vent before the neutralization system, one on the neutralization tank and one after the
neutralization tank, you can tie them together (gang them) and run it into one stack.

Q. Can you combine those acid vents? And are there any rules (i.e., heights) about tying them in?
A. Yes. Combining them is allowed. And no there are no rules on how you tie them together.

NYC requires chemical treatment of neutralization waste. They require limestone pre-treatment and then they require chemical
treatment. That means that you need reagent tanks. Reagent tanks need to be vented as well.

The New York School Construction Authority, SCA, is the only exception the City of New York that you can put a limestone tank
centralized system in only. Any other type of school that is not under the SCA guidelines must put in a limestone treatment first as a
pre-treatment, then chemical backup, then the sampling tank and that requires five tanks because then you need acid and caustic
reagent tanks on the side. The venting of the reagent tanks basically it’s an acid and a caustic, they must also be vented and they
can be ganged. There is an OSHA requirement for this; you cannot tie the acid and caustic at the same point. They must be tied in at
least 10 feet apart of each other. Otherwise you can get reactions taking place at that one point.

There are some jobs that also require acid resistant sediment interceptors in front of the system. We recommend a polypropylene
valve in front to the system for maintenance purposes. If its 4 inches and smaller you can use a ball valve, for six inches and larger you
can use a polypropylene butterfly valve. On connections 4 inches and smaller are generally threaded connections on the tanks and
all the equipment. On the 6 inches and larger we have acid resistant no hub clamps that are approved and used, and the valves
would be flanged. The NYC SCA and NYC DEP originally for many years allowed you to put individual neutralizers for five or fewer
sinks. The Board of Ed and SCA negotiated with DEP and allow up to 20 sinks now. The new SCA recommended guide specs only
show you how to size it above 20 sinks for centralized system. The SCA sizes it based upon flow rate, number of sinks, with alkaline
stone. Therefore, the tanks will be a little smaller than all other jobs in NYC.

The SCA sizes it based on flow rate, basically, you multiply the number of sink fixtures by the flow rate of the fixtures. If you have
one sink it’s a 1-sink fixture. If you had 2 faucets on there then it is considered a 2-sink fixture because you are doubling your flow. A
cup sink is considered a half-sink fixture. If you had a triple bay compartment sink – it is considered a 3-sink fixture because all 3 can be
filled and dumped at the same time. Flow rates generally from a faucet is considered ¾ – 1 ½ GPM, most engineers use 1 GPM as a
rule of thumb. Floor drains can be added to your calculations based upon the amount of discharge it may receive; and a retention
time.

Mild acids and chemicals are worse to metal piping than concentrated acids and caustics. If concentrated hydrochloric acid or
sulfuric acid is put in a metal tank, the acids will attack it immediately cause a coating to develop and precipitate. Mild acid will eat
through metal piping faster than the concentrated. Every sewage treatment plant in the United States uses live bacteria to digest the
waste. So what they are trying to have to do is treat your waste on site before it gets to the sewer treatment plant where it eats up
their pumps and kills their bacteria. Systems should be designed for the worst hour of the worst day, of the worse year, not the normal
average use or typical day of use.

Individual acid neutralizer for non-SCA jobs are allowed for up to five sinks. The smallest size by code and performance is a 5
gallon. For most labs you can use 1 ½ or 2” fittings for your waste. The SCA mandates a 2” beehive removable overflow standpipe
strainer. Then you have to provide threaded 2” tailpiece and drum traps. If you use an individual acid neutralizer, it takes the place of
the drum trap. If the individual acid neutralizer is more than the code allows from the sink, then a drum trap is required. If this condition
exists then a vent is required between the drum trap and the individual acid neutralizer.

In a battery acid application you will need 4 tanks instead of 5 tanks. Along with the acids coming down you may have caustics
as well. You treat acids with caustic reagents and caustic with acid reagents. If sized properly the limestone does most of your work.
The waste leaves your acid neutralization tank to a sampling tank which records what goes into the sanitary waste 24 hours a day, 365 days a year. We recommend that they sign and date the English chart paper. It is changed once a month, it is a legal document.

There are some jobs where they have mostly solvents, so they need to do a lot of dilution. If a lab has ‘heavy metals’ which would be like lead, mercury and things like that are not allowed to go down the drain. They have to be collected separately and disposed of by a licensed professional.

Particularly the SCA now allows condensing boilers that the wastes are corrosive and acidic, they eat up piping. They are not allowed by the code or DEP to discharge directly into sanitary waste, it must be treated. The condensate discharge must also be cooled down after the neutralizer to what the code allows. The cold water line for the cool down needs a vacuum breaker installed. The condensate line needs a vent line before and after the acid neutralizer.

On the rainwater and the gray water systems we are recommending back flow preventers, if we are feeding from city or make-up water.

Meeting notes supplied by and with great thanks to ASPE Secretary Sal Rachiele for his copious and accurate transcription of this meeting’s presentation.

Salvatore S. Rachiele, CPD Plumbing/Fire Protection Engineer
Joseph R. Loring and Associates, Inc.
21 Penn Plaza, 14th Floor
360 West 31st Street
New York, NY 10001-2727
T: 646 674-6115 F: 212 563-7382
E: srachiele@loringengineers.com

Andrew D. Cartoun,
ASSE Recording Secretary
ASAP Sales 201 Montrose Rd,
Westbury, NY 11590
T: 917 873 3951
E: asapcartoun@aol.com
In Memoriam

It is with sadness we announce the passing of Rose Costa, wife of Peter Costa of Cosentini. Rose passed on August 4, 2010 at age 60.

Rose was a wonderful wife and mother and will be missed by her many friends and relatives.

Our sincere sympathy Pete and Family.
TO: BOROUGH SUPERINTENDENTS

FROM: George E. Berger, P.E.
Assistant Commissioner

SUBJECT: TEMPORARY CERTIFICATES OF OCCUPANCY
FOR HI-RISE CLASS "E" BUILDINGS

NOTE: Underscoring - indicates Modification and
Supplementation.

This memorandum modifies and supplements Item C of Directive
No. 33/70 for the minimum requirement for the issuance of
Certificates of Occupancy for Hi-Rise Class "E" Buildings.

C. Temporary Certificates of Occupancy for New Non-
Residence Buildings.

Temporary Certificates of Occupancy may be issued for
new non-residence buildings, provided there is compliance
with the following items:

1. All required exits leading from the floors to
   be occupied to the ground floor and to the
   street must be completed including exit and
directional signs, exit lights, lighting of
exit facilities, phosphorescent exit signs
and proper protection of all openings. Each
floor to be numbered within each stair
enclosure and each stair to be lettered. This
includes ramps for the use of persons in wheel
chairs where they are required by the Code.

2.a) Standpipes, sprinkler and other fire protection
    systems for those portions of the building to
    be in. "ed on the Temporary Certificate of
   Occupancy" where required, must be completed and
must be available for use at all floors and
spaces proposed to be occupied under the
Temporary Certificate of Occupancy. Such systems
or parts of systems shall be tested and accepted
prior to the issuance of a Temporary Certificate. The primary and auxiliary sources of water supply must be completed and must be ready for use. Floor numbering signs, Elevator Landing Signs, Stair Signs, and Re-entry Signs must be in place on occupied floors.

b) Floors below the highest occupied floor that are not covered by the Temporary Certificate of Occupancy - the Elevator Lobby must be protected by a sprinkler system looped around the core, or a 1-hour rated enclosure between the core area and the open floor with one sprinkler head on the unoccupied side of the enclosure. In addition, the stair doors at the floor must be protected by at least one sprinkler head each. The sprinkler must be connected to the water flow alarm and Class E Alarm System, and smoke detectors must be located at the top of each stair and elevator shaft. The above applies to all unoccupied floors below the highest occupied floor, including any unoccupied subgrade spaces.

c) Floors below the highest occupied floor that are not covered by the Temporary Certificate of Occupancy, when the plan is not of the central core type, shall have automatic sprinkler protection, at a minimum, installed in the vicinity of and connecting all required exits and elevator lobbies.

3. The core of the building including stair, elevator, ventilating and other shafts from stories to be occupied to the lowest level of the core must be completed. This includes all required enclosures. All openings on and below the highest floor to be occupied must be protected with the required protective assemblies as shown on the approved plans.

All shaft openings (electrical, utility, communication) shall be sealed with a 2-hour fire rated assembly between construction floors and occupied floors (seals to be removed only when actively working on shaft).

4. Ventilating, heating and where installed air conditioning systems shall be completed and the heating or air conditioning systems, depending on the season, must be operable for the floors to be included on a Temporary Certificate of Occupancy. All HVAC ducts shall comply with Code where they pierce rated construction (dampers, etc.).
Ventilation test reports and affidavits must have been filed and have been accepted for those portions of the building to be included on the Temporary Certificate of Occupancy.

5. All plumbing systems serving those portions of the building to be included on the Temporary Certificate of Occupancy must be completed and must have been tested and accepted prior to the issuance of the Temporary Certificate of Occupancy. The storm and sanitary drainage systems must be completed and connected to the public sewer system or to a private disposal system where this has been accepted on the approved plans. A gas card must have been issued prior to the issuance of a Temporary Certificate of Occupancy where gas service is provided. All temporary gas piping to be removed from Temporary Certificate of Occupancy floors and all floors below highest f.c.o. floor.

6. In addition to the three elevators required to be available for all occupied floors for which plans call for service by three or more elevators, other elevators may be designated construction elevators. Construction elevators shall be programmed to not stop at occupied floors. All elevator service to occupied floors to conform to Code and Local Law #16/84 (all elevators to have recall, 3 car firemen service). Tenant elevator service to occupied floors be programmed not to stop at construction floors. (Placing lobby keved switch in "firemen service" position will override any other programming for car stops, but will not affect elevator circuits - NY-18 Rule 211-3C). Minor items such as inspection card frame and indicator light cover need not be completed. (This does not require more elevator service to be provided than is shown on the approved plans).

7. Electrical work, including lighting in public halls, corridors, stairs, lobbies, other public parts, and fire alarm systems if required must be substantially completed and must be in safe operating condition from highest floor with a Temporary Certificate of Occupancy down.

8. Any lobby or part of a lobby which provides access for the public to elevators or stairs serving those floors or spaces which are to be included on the Temporary Certificate of Occupancy must be substantially completed including finishing of floors, ceilings, and walls. Decorative wall finishing need not be completed for a Temporary Certificate of Occupancy. All openings to the lobby must be
provided with doors and such other protective assemblies as are shown on the approved plans.

9. Tenant changes shall not be required to be completed provided that where work is in progress plans for such changes have been filed and approved and permits have been issued. No work shall be started nor shall be in progress anywhere in the building unless a permit has been issued for such work.

10. There shall be no violation orders, of any nature, on file for any part of the building except that the Borough Superintendent may waive this requirement where the violation is not of a hazardous nature.

11. Floors containing construction offices, storage shanties, and material storage areas shall be fully sprinklered throughout. If the walls extend from the floor slab to ceiling slab above, sprinklers may be omitted within the office, shanty, or storage area. If the walls do not extend from slab to slab, sprinklers shall be provided both within and over the shanty. A shanty, office, or storage area located on a floor higher than 75 feet above grade must be of 1-hour rated incombustible materials or of metal, with sprinkler protection inside.

12. No Temporary Certificate of Occupancy shall be issued unless the fire protection plan per C26-124.1 takes cognizance of the Temporary Certificate of Occupancy condition.

George E. Betting, P.E.
Assistant Commissioner

2120
Useful Engineering Information:
By: Gaetano T. DiPietro

Natural Fuel Gas

Caloric Value: For natural gas the nominal British thermal unit per cubic foot (BTU/CFH) varies from about 900 to 1100 BTU/CFH. Generally, Plumbing Engineers use 1,000 BTU/CFh in our calculations. One CFH (cubic foot per hour) equals one MBH thousand British thermal units per hour.

Therefore:  
- 1 cubic foot (CF) = approximately 1,000 BTU’s
- 1 CFH = 1 MBH
- 100 CFH = 1 therm

Pressure: 27.71 inches of W.C. = 1 psig
In NYC low pressure gas varies between 4 to 6 inches W.C.. The pressure usually required in a commercial building’s kitchen varies from 6 to 7 inches W.C., about ¼ psig unless there are gas boilers or gas fired air handling units that are being installed which would require more gas pressure based on the equipment selected. For existing gas services where a commercial kitchen is to be added a gas booster would be required to increase the pressure as required.

Gravity: The specific gravity of natural gas varies from 0.55 to 10. We use 0.6 for specific gravity in NYC.

-To Be Continued-
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55 Calvert Street · Harrison, NY 10528
Phone (914)-835-4000
Fax (914) 835-1331

www.gafleet.com
USEFUL FORMULAS – PART XIII

By: Gaetano T. DiPietro

Spitzglass Formula

[For low pressure gas, less than a half (1/2) pound]

\[ Q = 3550K \left( \frac{h}{SL} \right)^{1/2} \]

Q = Flow of natural gas, in cubic feet per hour (CFH)

h = Pressure drop, in inches of water column (W.C.)

S = Specified gravity of gas (air = 1.0)

L = Length of pipe, in feet (FT)

K = \left( \frac{d^5}{1 + 3.6d + 0.03d} \right)^{1/2}

where K = \left( \frac{d^5}{1 + 3.6 + 0.03d} \right)^{1/2}

Example:
Find the cubic foot per hour flow of gas that can be transmitted through a 4 inch black steel pipe 500 ft. long.

Start by determining the inside diameter (d) for 4 inch black steel pipe, (that dimension is 4.026 inches).

Next, determine that the pressure drop (h) to be used, the majority of reference material (graphs and charts) are based between 0.3 inches to 0.5 inches of W.C.

Then, determine the specific gravity (S) of natural gas compared to air. The specific gravity of natural gas we will use for NYC is 0.60.

Solve for (K) using 4.026 inches. For this example we will use 0.3 inches W.C.

K = 22.9

Now apply the results from above into the formulas and solve for the flow (Q)

\[ Q = \left( \frac{h}{5L} \right)^{1/2} \]

\[ Q = 3550 (22.9) \left( \frac{0.3}{0.6(500)} \right)^{0.5} \]

\[ Q = 8129550 \left( \frac{0.3}{300} \right)^{0.5} \]

Q = 8129550 (1.0)

Q = 8129550 (0.032)

Q = 2571 CFH
**A KNOCKOUT COMBINATION!**

**FOR CONTROLLING DOMESTIC HOT WATER TEMPERATURES.**

Do worries of unsafe hot water temperatures have you on the ropes? Fight back! Give your systems the old one-two punch with Heat-Timer’s Tempering Valve & Temperature Monitoring Control (TMC) combination. Used together, they significantly decrease the risk of scalding.

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The TMC monitors the temperature of water exiting the tempering valve. If the temperature exceeds set point, the TMC shuts off hot water supply to the valve. It can even prevent water that has accumulated between the valve and fixture from entering the system.

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Domestic hot water systems can overheat in a matter of seconds. That’s why Heat-Timer designed the TMC to activate an optional audio/visual alarm whenever outlet temperatures exceed an adjustable set point. So you hear a bell long before your opponent (high temp water) has you on the ropes.

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---

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- 1,500,000 - 1,800,000 - 2,000,000 Btu
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- Patented inward fired burner technology capable of NOx less than 10ppm and turndown of 20-to-1
- No minimum flow rate
- Complete integration in VFD loops
- No minimum return water temperature
- Complete integration into outdoor reset and low temperature heating loops
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Legislation Details (With Text)

File #: Int 0264-2010  Version: *  Name: Drinking fountains.
Type: Introduction  Status: Committee
  Committee: Committee on Housing and Buildings
On agenda: 6/9/2010  Final action:
Enactment date:  Law number:
Title: A Local Law to amend the New York city plumbing code, in relation to drinking fountains.
Sponsors: Mathieu Eugene, Helen D. Foster, Letitia James, Brad S. Lander, Annabel Palma
Indexes:
Attachments:

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<td>Committee on Housing and Buildings</td>
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</table>
By Council Members Eugene, Foster, James, Lander and Palma.

A Local Law to amend the New York city plumbing code, in relation to drinking fountains.

Be it enacted by the Council as follows:

Section 1. Section 410.1 of the New York city plumbing code, as added by local law number 33 for the year 2007, is amended to read as follows:

**SECTION PC 410**

**DRINKING FOUNTAINS**

410.1 Approval. Drinking fountains shall dispense potable water that may be drunk without using a cup, and which shall be dispensed at such an angle so as to prevent the mouths and noses of persons drinking from such fountains from coming into contact with the water outlet, and which shall also contain a separate faucet or other outlet suitable for filling a bottle that is at least 10 inches high with potable water. Drinking fountains shall conform to ASME A112.19.1M, ASME A112.19.2M or ASME A112.19.9M, and water coolers shall conform to ARI 1010. Drinking fountains and water coolers shall conform to NSF 61, Section 9. Where water is served in restaurants, drinking fountains shall not be required. In other occupancies, where drinking fountains are required, [bottled water dispensers] where potable water is readily available to all users of a space and may be dispensed for filling cups, or bottles which are at least 10 inches high, through water coolers or faucets, equipment or devices providing purified water, other than such faucets, equipment or devices located in restrooms and equipment or devices that dispense water in individual bottles, one bottle at a time, such water coolers, faucets, equipment or devices shall be permitted to be substituted for not more than 50 percent of the required drinking fountains.

§2. This local law shall take effect on January 1, 2011, except that the commissioner of buildings shall take such actions as are necessary for its implementation, including the promulgation of rules, prior to such effective date.
# Legislation Details (With Text)

**File #:** Int 0268-2010  **Version:** *  **Name:** Preventing water waste in buildings.

**Type:** Introduction  **Status:** Committee

**Committee:** Committee on Housing and Buildings

**On agenda:** 6/9/2010  **Final action:**

**Enactment date:**  **Law number:**

**Title:** A Local Law to amend the administrative code of the city of New York, in relation to preventing water waste in buildings.

**Sponsors:** Brad S. Lander, Charles Barron, Gale A. Brewer, Margaret S. Chin, Albert Vann, Jumaane D. Williams

**Indexes:**

**Attachments:**

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<td>Committee on Housing and Buildings</td>
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</tbody>
</table>
By Council Members Lander, Barron, Brewer, Chin, Vann and Williams.

A Local Law to amend the administrative code of the city of New York, in relation to preventing water waste in buildings.

Be it enacted by the Council as follows:

Section 1. Statement of findings and purpose. Leaks and equipment malfunctions have the potential to waste a tremendous amount of water in New York City buildings and they can persist undetected for years. The Council therefore finds that sub-meters attached to major water-using equipment will help building managers quickly detect such leaks and malfunctions, and save significant amounts of water from being wasted.

§2. Section 606.5.4.1 of the New York city plumbing code, as added by local law number 33 for the year 2007, is amended to read as follows:

606.5.4.1 Water piping control and location. Water inlets to gravity house tanks shall be controlled by a ball cock or other automatic supply valve or emergency electrical cut-off so installed as to prevent the overflow of the tank in the event that the pumps filling the tanks do not shut off at the predetermined level or the street pressure rises to a point where it can fill the tank. The water inlet to a suction tank shall be controlled by a ball cock or other automatic supply valve. The inlet shall be terminated so as to provide an accepted air gap but in no case shall it be less than 4 inches (102 mm) above the top of the overflow. The outlet from a gravity tank to the distribution system shall be equipped with a strainer located at least 2 inches (51 mm) above the tank bottom to prevent solids from entering the piping system. All down-feed supplies from a tank cross connected in any manner with distribution supply piping in a building supplied by direct street or pump pressure, shall be equipped with a check valve on the main cold water down supply to prevent backflow of water into the roof tank. All roof tanks shall be provided with a high water level alarm, at or slightly below the overflow, designed to activate when the ball cock, automatic supply valve, or emergency electrical cut-off fails.

§3. Section 606 of the New York city plumbing code, as added by local law number 33 for the year
2007, is amended by adding a new section 606.7 to read as follows:

606.7 **Equipment and area sub-meters.** Water sub-meters from a list promulgated by the department of environmental protection shall be installed on the makeup water lines for the following:

1. evaporative cooling towers
2. commercial cooking facilities
3. commercial laundry facilities
4. commercial gyms and spas
5. swimming pools

**Exception: Swimming pools accessory to Group R-3 occupancies**

§4. Section 608.16.2 of the New York city plumbing code, as added by local law number 33 for the year 2007, is amended to read as follows:

608.16.2 **Connections to boilers.** The potable supply to the boiler shall be equipped with a backflow preventer with an intermediate atmospheric vent complying with ASSE 1012 or CAN/CSA B64.3. Where conditioning chemicals are introduced into the system, the potable water connection shall be protected by an air gap or a reduced pressure principle backflow preventer, complying with ASSE 1013, CAN/CSA B64.4 or AWWA C511. **Makeup water supplies to boilers serving buildings greater than six stories shall be equipped with a water sub-meter from a list promulgated by the department of environmental protection along with inlet and outlet isolation valves.**

§5. This local law shall take effect on January 1, 2011, except that the commissioner of buildings shall take such actions as are necessary for its implementation, including the promulgation of rules, prior to such effective date.

LS # 995
6-4-10 12 pm
DB
WE 3
Title: A Local Law to amend the New York city plumbing code and the administrative code of the city of New York, in relation to enhancing water efficiency standards.

Sponsors: Jessica S. Lappin, Gale A. Brewer, Sara M. Gonzalez, Brad S. Lander, Domenic M. Recchia, Jr., James G. Van Bramer, Jumaane D. Williams

Indexes:

Attachments:

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</table>
Int. No. 271

By Council Members Lappin, Brewer, Gonzalez, Lander, Recchia, Van Bramer, Vann and Williams.

A Local Law to amend the New York city plumbing code and the administrative code of the city of New York, in relation to enhancing water efficiency standards.

Be it enacted by the Council as follows:

Section 1. Section PC 202 of the New York city plumbing code is amended by adding certain definitions to be placed in appropriate alphabetical order to read as follows:

**DUAL FLUSH TOILET.** A toilet that enables the user to select a high flush for solid waste or a reduced volume, low flush for liquid waste.

**NON-WATER URINAL.** A urinal that discharges into the sanitary drainage system but is not supplied by a water distribution system.

§2. Section 419.1 of the New York city plumbing code is amended to read as follows:

**419.1 Approval.** Urinals shall conform to ASME A112.19.2M, CSA B45.1 or CSA B45.5. Urinals shall conform to the water consumption requirements of Section 604.4. Urinals shall conform to the hydraulic performance requirements of ASME A112.19.6, CSA B45.1 or CSA B45.5. Non-water urinals shall conform to ANSI/ASME A112.19.19.

§3. Section 604.4 of the New York city plumbing code is amended to read as follows:

**604.4 Maximum flow and water consumption.** The maximum water consumption flow rates and quantities for all plumbing fixtures and fixture fittings shall be in accordance with Table 604.4.

Exceptions:

1. Blowout design toilets [3.5 gallons (13 L) per flushing cycle].
2. Vegetable sprays.
3. Clinical sinks [4.5 gallons (17 L) per flushing cycle].
4. Service sinks.
5. Emergency showers.
§4. Table 604.4 of the New York city plumbing code is amended to read as follows:

### TABLE 604.4

MAXIMUM FLOW RATES AND CONSUMPTION FOR PLUMBING FIXTURES AND FIXTURE FITTINGS

<table>
<thead>
<tr>
<th>PLUMBING FIXTURE OR FIXTURE FITTING</th>
<th>MAXIMUM FLOW RATE OR QUANTITY&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lavatory, private</td>
<td>1.5 gpm at 60 psi</td>
</tr>
<tr>
<td>Lavatory, public (metering)</td>
<td>0.25 gallon per metering cycle</td>
</tr>
<tr>
<td>Lavatory, public (other than metering)</td>
<td>0.5 gpm at 60 psi</td>
</tr>
<tr>
<td>Shower head&lt;sup&gt;a&lt;/sup&gt;</td>
<td>2.0 gpm at 80 psi</td>
</tr>
<tr>
<td>Sink faucet</td>
<td>1.5 gpm at 60 psi</td>
</tr>
<tr>
<td>Service sink</td>
<td>2.5 gpm at 60 psi</td>
</tr>
<tr>
<td>Urinal</td>
<td>0.5 gallon per flushing cycle</td>
</tr>
<tr>
<td>Toilet</td>
<td>1.28 gallons per flushing cycle or equivalent dual flush&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

For SI: 1 gallon = 3.785 L, 1 gallon per minute = 3.785 L/m,

1 pound per square inch = 6.895 kPa.

a. A hand-held shower spray is a shower head.

b. Consumption tolerances shall be determined from referenced standards.

c. A dual flush toilet where the average of the high flush and the low flush is less than or equal to 1.28 gallons per flush.

§5. Chapter 13 of the New York city plumbing code is amended by adding a reference to ASME standard A112.19.19 to immediately follow the reference to ASME standard A112.19.14 to read as follows:

A112.19.19-2006 Vitreous China Nonwater Urinals……………………419.1

§6. Section C102 (Waterless Urinals) of the New York city plumbing code is deleted.

§7. Subdivision 1 of section 20-689 of the administrative code of the city of New York is amended to read as follows:

(1) It shall be unlawful for any person to distribute, sell, offer for sale, buy, offer to buy, cause any person to buy or sell or import any plumbing fixture which does not [meet the standards of subdivision P.104.2 of section 104.0 of reference standard RS-16 of the appendix to chapter one of title twenty-seven of this code] comply.
P.104.0 of reference standard RS-16 of the appendix to chapter one of title twenty-seven of this code] comply with the water consumption requirements of section 604.4 of the New York city plumbing code.

§8. This local law shall take effect on January 1, 2011, except that the commissioner of buildings and the commissioner of consumer affairs shall each take such measures as are necessary for its implementation, including the promulgation of rules, prior to such effective date.
NEW YORK CITY WATER BOARD

WATER AND WASTEWATER RATE SCHEDULE

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Part II - Water Rates and Charges ..........................................................................................4
Part III - Wastewater Rates and Charges .............................................................................12
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Part VI - Billing Programs .....................................................................................................31
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Part I - Definitions

As used in these regulations:

1. “Access” means the ability to inspect a Customer’s water and/or sewer service and premises in order to ensure the accuracy of charges and includes, but is not limited to the ability to inspect, test, install, repair or upgrade water meters, remote reading devices and any appurtenant System equipment.

2. “Apartment” means that portion of a building consisting of one or more rooms and occupied by one or more persons as a Dwelling Unit, separate and set apart from other rooms or groups of rooms within a building. This classification includes and applies to maisonette apartments, apartment houses, studio apartments, duplex apartments, kitchenette apartments and dormitories. This classification does not include any occupancy previously required to be metered.

3. “Authorized Representative” means any individual or organization who has an original ‘Letter of Authorization’ (‘LOA’) on file with DEP, signed by the owner of the premises and notarized, designating that individual or organization as the Authorized Representative. If such LOA fails to state a specific end date, DEP will deem it to expire one year from the date of notarization. A valid Letter of Authorization must contain a statement that the owner hereby rescinds any previously issued LOA. In cases where an owner has authorized multiple representatives, DEP shall deem the latest dated LOA to be valid, superseding any earlier dated LOA.

4. “Bill Date” means the date a bill was issued on DEP’s billing system.

5. “Bill Period” means number of days listed as “Days” on a water and wastewater bill signifying the “to” and “from” dates that service was provided.

6. “Billing Programs” means all of the programs specified in Part VI - Billing Programs.

7. “Boarder, Roomer or Lodger” means a person residing within a household who pays a valuable consideration for residence and who does not occupy the space within the household as an incident of employment.

8. “Commissioner” means the Commissioner of the Department of Environmental Protection (DEP) of the City of New York, or designee.

9. “Complete Application” means a written submission in which all requested information is provided, that is signed by the Applicant, and is accompanied by all other information and documentation required by the Commissioner. If an application is incomplete, program eligibility will be evaluated based on criteria in effect as of the date the customer submits a complete application, and program benefits will commence as of the date the customer submits a complete application.
10. “Customer” means a current property owner or Authorized Representative of a property owner.

11. “Delinquent Charges” means charges for which payment has not been received by the Water Board by the “Payment Due By” date as indicated on the face of the bill.

12. “DEP” means the Department of Environmental Protection of the City of New York and its authorized agents.


15. “Dishonored Payment Charge” means a charge applied to a customer account due to a Dishonored Check.

16. “Due Date” means the date full payment must be received by the Water Board and is shown as “Payment Due By” on the face of the bill.

17. “Dwelling Unit” means the separate residences of a premises. The number of Dwelling Units is determined by the Certificate of Occupancy or Use or other acceptable records of the Department of Buildings as of the date a request for a Billing Program is approved. Where necessary, DEP may inspect the premises to determine the number of Dwelling Units to be used for billing purposes.

18. “Effective Date” means the date a resolution is adopted by the Water Board, or the date otherwise explicitly specified as the “Effective Date” in this Rate Schedule or in the authorizing resolution approved by the Water Board.

19. “Executive Director” means the Executive Director of the New York City Water Board.

20. “Fiscal Year” means the period from July 1 through June 30.

21. “Flat-Rate Account Reconciliation” means a review of frontage billing to validate the fixture count and to determine that an account is appropriately billed.

22. “Late Payment Charges” (LPC) means interest charges applied to Delinquent Charges.

23. “Metered Premises” is a property or premises that is metered at the point of entry of each water service pipe or at a location approved by the Commissioner.

24. “Regulated Rate” means the rate per million gallons of water supplied to users outside of the City, for water supplied which does not exceed the allowance quantity established in accordance with Section 24-360 of the Administrative Code of the City of New York.
25. “Residential Premises” means a property or premises that is classified as a private dwelling or as a Class A multiple dwelling under the New York State Multiple Dwelling Law.

26. “Room” means that portion of an Apartment or dwelling legally constructed so that it may be used for separate occupancy by one or more persons.

27. “Service Connection” means a service pipe connecting a property or premises to a water main. Property owners are responsible for maintaining Service Connections.

28. “Stormwater” means that portion of precipitation that, once having fallen to the ground, is in excess of the evaporative or infiltrative capacity of soils, or the retentive capacity of surface features, which flows or will flow off the site by surface runoff.

29. “Wastewater Allowance” is a percentage discount that applies to wastewater charges that otherwise would be assessed on a property or premises.

30. “Water Board” or “Board” means the New York City Water Board.

31. “Water Supply System” and “Wastewater System” means, respectively, the water system and wastewater system under the control and jurisdiction of the New York City Water Board.

Part II - Water Rates and Charges

Water and wastewater charges, if not paid when due, constitute a lien upon the premises served and a charge against the owners thereof. Charges apply unless the water tap has been destroyed in the street or shut off at the connection to the water main, by either DEP or a licensed plumber pursuant to valid permits, disconnecting water service to the premises. These charges do not include wastewater service charges set forth in Part III.

Section 1. Metered Water Rates

A. The charge for water measured by meter is $2.95 per one hundred cubic feet provided. One hundred cubic feet is approximately seven hundred forty-eight gallons.

B. Minimum Charge: The minimum charge imposed for water service is $0.40 per day per water meter within a Bill Period. The minimum charge will be imposed for any Bill Period in which charges based on actual consumption and computed in accordance with Paragraph A above are less than the minimum charge. There is no minimum charge for fire sprinkler system water meters.

Section 2. Unmetered Water Rates

Rates are per year unless otherwise indicated.
A. Frontage Rates

The annual frontage rates apply to premises both wholly or partly unmetered, and not billed on the basis of any other flat-rate billing program or on metered consumption. A minimum charge for frontage accounts shall consist of Item 1 - Front width of building, which includes the first story, one toilet, one bathtub or shower and one Dwelling Unit. A premises will be subject to the minimum frontage charge if the premises is vacant and sealed, from the date of discovery by DEP or the date certified by another agency of the City of New York, provided that no such adjustment shall exceed the four-year complaint filing period.

Property owners are responsible for notifying DEP of any removal or replacement of a water-consuming fixture. As a general rule, DEP will impose fixture charges through the date the Customer notifies DEP in writing of the removal or replacement of a water-consuming fixture, as confirmed by DEP inspection. An exception to the general rule is permitted where fixture charges are different than the substantiated fixture profile. A substantiated fixture profile can be demonstrated only by i) submission by the Customer to DEP of a valid Certificate of Occupancy which indicates a fixture profile different from DEP billing records, as confirmed by DEP inspection, or ii) submission by the Customer to DEP of a valid Work Permit issued by the Department of Buildings that indicates the nature and date of stated physical changes made to the property or its water consuming fixtures, as confirmed by DEP inspection. DEP will correct fixture charges based on a substantiated fixture profile from the date of issuance of the Certificate of Occupancy or completion of work indicated in i) or ii) above, provided that no such adjustment shall exceed the four-year complaint filing period.

The annual frontage rates are as follows:

1. Front width of building, which includes the first story, one toilet, one bathtub or shower and one Dwelling Unit.
   - 16 feet and under $123.59
   - Over 16 feet to 18 feet 154.50
   - Over 18 feet to 20 feet 185.43
   - Over 20 feet to 22 ½ feet 216.27
   - Over 22 ½ feet to 25 feet 247.10
   - Over 25 feet to 30 feet 309.02
   - Over 30 feet to 37 ½ feet 370.76
   - Over 37 ½ feet to 50 feet 432.61
   - Each additional ten (10) feet or part thereof 61.88

2. Each story in excess of one per building.
   - 30.90

3. Rear building on any lot or lots with front building thereon, each twenty-five (25) feet front or fraction thereof.
   - 154.50

Note: A corner-lot building must pay the rates for front width and stories of building.
B. **Extra Dwelling Unit Rate**

Each Dwelling Unit in excess of one Dwelling Unit per building. $141.45

C. **Boarder, Roomer or Lodger Rate**

Each Room in a building or Apartment available for occupancy by a Boarder, Roomer or Lodger, in excess of the two (2) Rooms permitted a family, in addition to the Dwelling Unit charge, per person, per Room. $20.66

D. **Fixture Charges and Miscellaneous Rates**

1. Bathtub or shower in excess of one (1) per building. $92.69

1a. Bathtub located in a kitchen of a Dwelling Unit that has no other Room containing a bath. 41.17

2. Shower not installed over bathtub, or “sitz” bath, in excess of one (1) per building. 92.69

3. Bathtub, in barber shop, public house and bathing establishment. 154.50

4. Outdoor shower or bathtub comprising a section of piping with or without spray attachment, located outside of a building. 154.50

5. Toilet or urinal in excess of one (1) per building.

   Ultra low flow toilet, as approved by the Commissioner. 28.28

   All other fixtures. 61.88

6. Ash lift. Thirty-can or less capacity per day. 92.69

   Each additional thirty-can lift or fraction thereof. 61.88

7. Backfilling. For each cubic yard, determined on the cubical contents of excavation to be filled with earth. 0.62

8. Bakery. Each oven. 247.10

9. Barbershop, beauty, hairdressing and manicuring parlor. Up to and including three (3) chairs or tables. 247.10

   Each additional chair or table. 30.90

10. Barge. Water for domestic use only. 154.50
11. Motorboat. Tank capacity *(rates given are per month)*:

<table>
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<tr>
<th>Capacity</th>
<th>Rate</th>
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<tbody>
<tr>
<td>3,000 gallons or less</td>
<td>231.83</td>
</tr>
<tr>
<td>3,001-6,000 gallons</td>
<td>463.48</td>
</tr>
<tr>
<td>6,001-12,000 gallons</td>
<td>772.42</td>
</tr>
<tr>
<td>over 12,000 gallons</td>
<td>Use Steamboat Rate (below)</td>
</tr>
</tbody>
</table>

12. Steamboat. Tank capacity *(rates given are per month)*:

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>12,000 gallons or less</td>
<td>772.42</td>
</tr>
<tr>
<td>12,001 to 20,000 gallons</td>
<td>1,158.73</td>
</tr>
<tr>
<td>20,001 to 30,000 gallons</td>
<td>1,544.80</td>
</tr>
<tr>
<td>30,001 to 40,000 gallons</td>
<td>1,931.10</td>
</tr>
<tr>
<td>40,001 to 60,000 gallons</td>
<td>2,317.15</td>
</tr>
<tr>
<td>60,001 to 100,000 gallons</td>
<td>3,089.53</td>
</tr>
</tbody>
</table>

13. Boiler of boat or portable. Water for hoisting, steam rolling, steam shoveling, dredging, erecting, hauling, pile driving, derricks, diggers, conveyers and all floating or portable steam plants and steamboats, except boats supplying shipping, according to the amount of horsepower used *(rates given are per month)*:

<table>
<thead>
<tr>
<th>Horsepower</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to and including:</td>
<td></td>
</tr>
<tr>
<td>10 horsepower</td>
<td>30.90</td>
</tr>
<tr>
<td>15 horsepower</td>
<td>46.98</td>
</tr>
<tr>
<td>20 horsepower</td>
<td>61.88</td>
</tr>
<tr>
<td>25 horsepower</td>
<td>77.44</td>
</tr>
<tr>
<td>30 horsepower</td>
<td>92.69</td>
</tr>
<tr>
<td>35 horsepower</td>
<td>108.24</td>
</tr>
<tr>
<td>40 horsepower</td>
<td>123.59</td>
</tr>
<tr>
<td>45 horsepower</td>
<td>139.16</td>
</tr>
<tr>
<td>50 horsepower</td>
<td>154.50</td>
</tr>
<tr>
<td>55 horsepower</td>
<td>170.08</td>
</tr>
<tr>
<td>60 horsepower</td>
<td>185.43</td>
</tr>
<tr>
<td>65 horsepower</td>
<td>200.96</td>
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<tr>
<td>70 horsepower</td>
<td>216.27</td>
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<tr>
<td>75 horsepower</td>
<td>231.83</td>
</tr>
<tr>
<td>80 horsepower</td>
<td>247.10</td>
</tr>
<tr>
<td>85 horsepower</td>
<td>262.74</td>
</tr>
<tr>
<td>90 horsepower</td>
<td>278.07</td>
</tr>
<tr>
<td>95 horsepower</td>
<td>292.78</td>
</tr>
<tr>
<td>100 horsepower</td>
<td>309.02</td>
</tr>
</tbody>
</table>

Per additional five (5) horsepower or fraction thereof. | 15.48|

An allowance of 33-1/3 percent in the above rates will be made where condensers are used.
14. Boiler, permanent, when used exclusively for a purpose not covered by any other fixture charge. Per horsepower.  
   66.77

15. Boiler testing. Any boat, when engaged or employed in furnishing water in the testing of boilers in other boats, in addition to paying the regular fixed charges.  
   3,089.53

   309.02

17. Café, restaurant, liquor and beer saloon or any store similarly used.  
   For each sink.  
   154.50  
   For each bar.  
   309.02  
   For each pump where the use of water is required.  
   1,544.80

18. Café, dining saloon, luncheonette, lunch counter, restaurant, or other place where food is served for consumption on the premises.  
   247.10

19. Caisson sinking and air compressors, per hundred (100) cubic feet.  
   2.95

20. Camp. When not furnished with water through an independent service pipe *(rates given are per season)*.  
   92.69

21. Compressor (portable). For water used by a compressor of any gasoline-operated apparatus with a return cooling circulating system *(rates given are per month).*  
   30.90

22. Condenser. Per hundred (100) cubic feet.  
   2.95

   30.90

24. Fire line or sprinkler system, in a building. Per tap or connection:  
   Each 1½-inch or smaller  
   30.90  
   Each 2-inch  
   61.88  
   Each 3-inch  
   92.69  
   Each 4-inch  
   123.59  
   Each 5-inch  
   154.50  
   Each 6-inch  
   185.43  
   Each 8-inch  
   247.10

25. Fish stand. Each.  
   309.02

26. Fish stand for live fish.  
   772.42

27. Florist or conservatory.  
   247.10
28. Fountain, ornamental or display.  

29. Garage, connected to the City water supply, located in a building, capacity not more than three cars.  

30. Horse trough or half-barrel or tub on sidewalk or street.  

31. Hose connection, faucet, or other plumbing fixture attached to the inside or outside of a building or located at any point on a lot, for garden or lawn watering or street, sidewalk or step washing. Each.  

32. Ice machine or air conditioning unit, per quarter ton. Air conditioning units requiring a minimum rate of flow of water greater than one-half (½) gallon per minute must be metered  

   a) If equipped with an approved water conserving device, per quarter ton.  

   b) Air conditioning equipment with rated capacity in tons will be charged pro rata from date of installation to date of metering, per year, per quarter ton.  

   c) Such units, when equipped with an approved water conserving device, will be charged pro rata from the date installed to the date when the supply is metered, per year, per quarter ton.  

   d) Air conditioning apparatus not equipped with a refrigerating unit or using water for other than refrigerating uses, for the cleaning or conditioning of the air, for the period between the time the unit is installed and the date when the supply is metered:  

      Less than one-half (½) gallon per minute  
      ½ gal. and up to but not including 1 gal./min.  
      1 gal. and up to but not including 2 gal./min.  
      2 gal. and up to but not including 3 gal./min.  
      3 gal. or more per minute, per gallon or fraction thereof.  

33. Laundry. Each washtub, washing machine or apparatus for washing clothes located in a common area or intended for use by more than one Dwelling Unit.  

33a. Laundry. Each washtub, washing machine or apparatus for washing clothes located within an individual apartment or intended for use by one Dwelling Unit.  

Note: The above Fixture Charge No. 33a shall be applied prospectively to:
i) Accounts that have been billed for laundry uses pursuant to Fixture Charge No. 33 and such fixtures have been removed from these common areas and replaced with fixtures located in individual dwelling units; and, ii) Newly constructed or substantially renovated properties where clothes washing laundry fixtures are installed in individual dwelling units.

34. Milk depot. For the purpose of washing cans or bottles, each washing machine, tub or washing apparatus.  
35. Photograph gallery. Each faucet or outlet.  
36. Railroad track repair. For each track gang or group engaged in repair work (per month).  
37. Rock drilling machine. Water for cooling of drill heads, flushing of jetting drill holes per each one hundred (100) cubic feet of water furnished.  
38. Sand and steam blasting machine. Water used to wash or clean walls of buildings, per hundred (100) cubic feet.  
39. Soda or mineral water fountain. One sink or glass washing spray. 
   Each additional sink or glass washing spray.  
40. Soda, mineral or carbonic water manufacture. Each machine or apparatus (retail).  
   Each machine or apparatus (wholesale).  
41. Stall. In stable, per year.  
42. Steam presser. For each boiler serving steam to a presser in a tailoring or other establishment where garments are pressed.  
43. For each store or other independent portion of a building used for business purposes:  
   Hot and cold water available.  
   Hot water only or cold water only available.  
44. Swimming pool, swimming tank, plunge bath or wading pool. Where located within building or heated so as to be usable on a year-round basis, per each ten (10) cubic feet or fraction thereof.  
44a. Where located outdoors and not heated so as to be usable on a year-round basis or where located within structures other than buildings but not so as to be usable on a year round basis:
<table>
<thead>
<tr>
<th>Service Description</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than two thousand five hundred (2,500) cubic feet.</td>
<td>154.50</td>
</tr>
<tr>
<td>Each additional ten (10) cubic feet or fraction thereof.</td>
<td>10.27</td>
</tr>
</tbody>
</table>

**Note:** Where a swimming pool, swimming tank, plunge bath or wading pool is conducted as a business enterprise and admission charged, the supply must be metered.

<table>
<thead>
<tr>
<th>Service Description</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test boring. Each machine used in testing boring (per month).</td>
<td>154.50</td>
</tr>
<tr>
<td>Testing of standpipe or other fire line within buildings, per test.</td>
<td>30.90</td>
</tr>
<tr>
<td>Wash drill. Per one hundred (100) cubic feet of water furnished.</td>
<td>2.95</td>
</tr>
<tr>
<td>Water motor. Where the capacity is not greater than one-hundredth (1/100th) horse</td>
<td>61.88</td>
</tr>
<tr>
<td>Unmetered water used in the operation of any machine, apparatus or other facility</td>
<td></td>
</tr>
<tr>
<td>not previously specified, including hospital fixtures as follows, is charged per</td>
<td></td>
</tr>
<tr>
<td>hundred (100) cubic feet of water.</td>
<td>2.95</td>
</tr>
<tr>
<td>a) X-Ray machine. Per 100 cubic feet.</td>
<td>2.95</td>
</tr>
<tr>
<td>b) X-Ray therapy. Per 2,000 cubic feet.</td>
<td>58.76</td>
</tr>
<tr>
<td>c) Electronic microscope. Per 10,000 cubic feet.</td>
<td>293.90</td>
</tr>
<tr>
<td>d) Laundry. Where done on premises, 1,750 cubic feet per bed.</td>
<td>51.45</td>
</tr>
<tr>
<td>e) Sterilizer or autoclave. Per 70,000 cubic feet.</td>
<td>2,057.28</td>
</tr>
<tr>
<td>f) Kidney dialysis machine, 100-liter size, per 1,850 cubic feet.</td>
<td>54.37</td>
</tr>
<tr>
<td>g) Kidney dialysis machine, 200-liter size, per 3,700 cubic feet.</td>
<td>108.72</td>
</tr>
</tbody>
</table>

**Other Hospital Charges:**

<table>
<thead>
<tr>
<th>Service Description</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>A business charge per each floor and per each area where there is a separate</td>
<td>247.10</td>
</tr>
<tr>
<td>business, including lunch counters, gift shops, newspaper and magazine stands,</td>
<td></td>
</tr>
<tr>
<td>employee cafeterias, etc.</td>
<td></td>
</tr>
<tr>
<td>Each bed or patient.</td>
<td>20.66</td>
</tr>
<tr>
<td>a) Each employee residence or dormitory room.</td>
<td>20.66</td>
</tr>
<tr>
<td>b) Each crib or bassinet.</td>
<td>20.66</td>
</tr>
<tr>
<td>Canteen machine. Per faucet.</td>
<td>123.59</td>
</tr>
<tr>
<td>One or more autopsy tables (one charge).</td>
<td>247.10</td>
</tr>
<tr>
<td>Developing tank located in reception room, per faucet.</td>
<td>247.10</td>
</tr>
<tr>
<td>Washing machine.</td>
<td>247.10</td>
</tr>
</tbody>
</table>
Section 3. Failure to Install a Meter or Remote

An annual surcharge will be imposed equal in amount to 100% of the last annual unmetered water charge when a Customer fails to install a meter or a remote reading device. The surcharge will be applied from July 1, 2000 until the date the installation takes place and, where a meter is installed by a private plumber, the permit for the work has been returned to DEP.

Section 4. Municipalities outside of the City of New York

The Regulated Rate for water supplied to users outside the City from either the Croton or Catskill/Delaware systems that is within the allowance quantities set forth in Section 24-360 of the Administrative Code of the City of New York will be adopted by the Board on or about June 25, 2010.

The rate and charge for water provided to users outside of the City that exceeds the allowance quantities will be equal to the rate and charge for water set forth in Section 1. Metered Water Rates.

Section 5. The City of New York

Water is supplied to the City of New York in accordance with the terms set forth in section 1045-(j) (5) of the New York City Municipal Water Finance Authority Act.

Part III - Wastewater Rates and Charges

Section 1. General Provisions

A. The owner of any parcel of real property connected or required to be connected to the wastewater system, including but not limited to real property connected with the Wastewater System by means of a private sewer or drain, and any person benefiting from the use of, or services furnished, rendered or made available by the Wastewater System, whether or not the owner of any parcel of real property connected or required to be connected to such system, shall pay a wastewater charge for the use of, or services furnished, rendered or made available by the Wastewater System. In instances where a property is required to be connected and has not connected, charges will be assessed retroactive to the date that the property was required to be connected. In instances where a new sewer is installed, charges will be assessed six months after notification that the new sewer has been installed and made available. In instances where a property has connected to the Wastewater System, charges are assessed from the date of connection.
**Ask DiPietro**

If you have a New York City Plumbing or Fire Protection question, submit your question to NYCPlumbingQuestion@gmail.com. If we choose your question, we’ll feature it in our next issue. Names of inquiries will be held anonymous.

********************

**Question:**

In designing a Fire sprinkler system, when renovating a portion of a floor in a light hazard occupancy of an existing office building, what other areas or floors if any need to be modified?

**Response:**

No other floors need to be modified in an existing building other than the floor being renovated.

The DOB/FDNY would expect a Temporary Sprinkler Loop on the floor in the core area or path of egress on that part of the floor that was not part of the renovation, which has not yet been occupied.

This would be in addition to sprinklering the renovated portion of the floor.
## Chapter Officers - 2009-2010

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Email/Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>Dominick Agostino</td>
<td><a href="mailto:dagostino@lilker.com">dagostino@lilker.com</a></td>
</tr>
<tr>
<td>3rd Vice President</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>Treasurer</td>
<td>Robert Zeuner</td>
<td><a href="mailto:rzeuner@gmail.com">rzeuner@gmail.com</a></td>
</tr>
<tr>
<td>1st Vice President</td>
<td>William Connors</td>
<td><a href="mailto:wconnors@lilker.com">wconnors@lilker.com</a></td>
</tr>
<tr>
<td>Secretary</td>
<td>Andrew Pankovcin</td>
<td><a href="mailto:apankovcin@gafleet.com">apankovcin@gafleet.com</a></td>
</tr>
<tr>
<td>Directors - One Year</td>
<td>Kurt Hazard</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anthony Forte</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gaetano DiPietro</td>
<td></td>
</tr>
<tr>
<td>2nd Vice President</td>
<td>Michael Haines</td>
<td><a href="mailto:cullenpumps@aol.com">cullenpumps@aol.com</a></td>
</tr>
<tr>
<td>Recording Secretary</td>
<td>Andrew D. Cartoun</td>
<td><a href="mailto:asapcartoun@aol.com">asapcartoun@aol.com</a></td>
</tr>
<tr>
<td>Directors - Two Years</td>
<td>William T. Briggs, CIPE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vincent Armenti</td>
<td></td>
</tr>
</tbody>
</table>

## COMMITTEE CHAIRPERSONS - 2009-2010

<table>
<thead>
<tr>
<th>Committee</th>
<th>Chairperson</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past Presidents Committee</td>
<td>Anthony Rini</td>
<td>T: (212) 627-7299</td>
</tr>
<tr>
<td>Plumbing Code</td>
<td>Gaetano T. DiPietro</td>
<td>T: (212) 556-3462</td>
</tr>
<tr>
<td>Bulletin/Advertising</td>
<td>Gaetano T. DiPietro</td>
<td>T: (212) 556-3462</td>
</tr>
<tr>
<td>Membership</td>
<td>Gaetano T. DiPietro</td>
<td>T: (212) 556-3462</td>
</tr>
<tr>
<td>Fire Protection Code</td>
<td>Victor Gomez</td>
<td>T: (212) 229-2669</td>
</tr>
<tr>
<td>Treasury</td>
<td>Robert Zeuner</td>
<td>T: (201) 978-3968</td>
</tr>
<tr>
<td>By-Law/Water &amp; Energy Cons/Historian</td>
<td>Joseph Petro</td>
<td>T: (201) 943-0245</td>
</tr>
<tr>
<td>ASPE Liaison</td>
<td>Robert Zeuner</td>
<td>T: (201) 978-3968</td>
</tr>
<tr>
<td>Education/Scholarship</td>
<td>Robert Schnarr, P.E.</td>
<td>T: (212) 354-5656</td>
</tr>
</tbody>
</table>

## ASSE EVENT COMMITTEES - 2009-2010

<table>
<thead>
<tr>
<th>Event</th>
<th>Chairperson</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSE/ASPE Fishing Trip/Field Trip</td>
<td>Steven Silver</td>
<td>T: (212) 736-6618</td>
</tr>
<tr>
<td>ASSE/ASPE Golf Outing</td>
<td>Charles Magnelli</td>
<td>T: (212) 239-7600</td>
</tr>
</tbody>
</table>

A.S.S.E. New York Chapter, INC.
Greeley Square Station
PO Box 20111
New York, NY 10001
ASSE wants you to have a great Labor Day