

**LOCAL LAWS  
OF  
THE CITY OF NEW YORK  
FOR THE YEAR 2006**

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**No. 49**

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By Council Members Dilan, Comrie, Nelson, Seabrook, Sears, Stewart, Baez, Gonzalez, Weprin and White Jr. (by request of the Mayor)

**A LOCAL LAW**

**To amend the administrative code of the city of New York, in relation to the electrical code.**

*Be it enacted by the Council as follows:*

Section 1. The definition of RESPONSIBLE REPRESENTATIVE in section 27-3004 of the administrative code of the city of New York, as added by local law number 64 for the year 2001, is amended to read as follows:

RESPONSIBLE REPRESENTATIVE: A master electrician who has the authority to make final determinations and who has full responsibility on behalf of a master electrician business for the manner in which electrical work is done and for the selection, supervision and control of all employees of such business who perform such work. A partnership or corporation shall designate one master electrician who is a partner of such partnership or an officer of such corporation to be the responsible representative of such partnership or corporation. The proprietor of a sole proprietorship shall be the responsible representative of such sole proprietorship. A master electrician shall not be the responsible representative of more than one partnership or corporation and shall file for, supervise, direct and be responsible for only the work of such partnership or corporation. If the master electrician business is in the form of a sole proprietorship, only the master electrician who owns such business shall be the responsible representative of such business and shall file for, supervise, direct and be responsible for only his or her own work and

the work of his or her employees. Notwithstanding the foregoing provisions, where the department has issued a violation notice for work performed by an unlicensed person or work performed without the required permit [and/or application for certificate of electrical inspection] and where such work is otherwise in compliance with the electrical code and the electrical code technical standards, a responsible representative may file an application for a permit [and/or certificate of electrical inspection] or take any other actions with respect to such work directed by the department to address the violation.

§2. Subdivision a of section 27-3009 of the administrative code of the city of New York, as amended by local law number 64 for the year 2001, is amended to read as follows:

a. For each calendar year, the commissioner shall appoint a board to review the character and fitness of applicants for a master electrician's or special electrician's licenses and the approval of master electrician businesses, *to advise the commissioner regarding allegations of illegal practices on the part of master and special electricians or master electrician businesses*, [and] to investigate and report on all proposed suspensions or revocations of licenses and approvals of master electrician businesses and all proposed penalties, *and to perform any other responsibilities as may be requested by the commissioner and as set forth in rules promulgated by the department.* *The commissioner* [and] may, for good cause shown, remove any member thereof and shall fill any vacancy therein, which board shall consist of:

1. Two officers or employees of the department.
2. Two licensed master electricians actively engaged in the trade.
3. A journeyman electrician.
4. An electrical inspector in the employ of an inspection agency certified by the commissioner.
5. An electrician in the employ of a public service corporation of the city.
6. A registered architect or licensed professional engineer of at least five years experience.
7. A real estate owner or manager.

§3. Subdivision d of section 27-3010 of the administrative code of the city of New York, as amended by local law number 64 for the year 2001, is amended to read as follows:

d. Every applicant shall submit to such investigation by the license board as may be proper to determine the applicant's character and fitness. *Every applicant shall commence the application process with the department within one year of passing the examination for licensure and shall furnish to the department a completed application within one year of submission of the first filing. Failure to provide all requested documents in a timely manner will constitute an incomplete application and may result in denial of the license.*

§4. Section 27-3013 of the administrative code of the city of New York, as amended by local law number 64 for the year 2001, is amended to read as follows:

§ 27-3013 Business establishments, master electricians and special electricians. a. Master electrician. Every master electrician business shall at all times have a place of business at a specified address in the city *at which the licensee may be contacted by the public and the department by mail, telephone or other modes of communication*, located in a business zone in conformity with the zoning regulations and kept open during the usual business hours unless other means acceptable to the commissioner is provided. At such place of business, [the master electrician's license of the responsible representative of such business and if the business is a partnership or corporation, the master electrician's license of any other master electrician associated with who does business on behalf of such partnership or corporation] *there* shall at all times be prominently displayed [together with] a permanent sign of a minimum size of one hundred fifty square inches, stating the name of such license holder, *the license number of such licensee*, and the words "licensed electrician" or "licensed electrical contractor" on a plate glass window and the name of the master electrician business if different than the name of the license holder; or an outside sign of permanent construction fastened and readily visible to pedestrians; or if such place of business be an office, commercial or industrial building, the names shall be indicated on the entrance door of the particular portion of the premises or on a bulletin board on the main floor.

1. The applicant for approval of a master electrician business under a license issued to a

master electrician shall have filed with the commissioner, in such form as the commissioner may direct, proof that such applicant[,] carries all insurance required by law including, but not limited to, workers' compensation, disability and [adequate]- *one million dollars of general liability insurance listing the department as certificate holder*, and that the applicant business is financially responsible. *Each policy of insurance shall contain a provision for continuing liability notwithstanding any recovery under such policy.* The applicant shall indicate the name and license number of the master electrician who shall serve as the responsible representative of such business, and, if the business is a partnership or corporation, the names of all other master electricians associated with such business. Upon approval of such application the commissioner shall issue an authorization number to the business. The authorization number shall be included on all applications for permits [and certificates of electrical inspection] and any other documents required to be filed with the department.

2. The office or other place where the master electrician business is to be conducted may be shared by one or more master electrician businesses. However, each business whether in the form of a sole proprietorship, partnership or corporation, shall distinguish its identity from any other business sharing the same office space. Such distinctions shall be maintained in a manner satisfactory to the department.

3. A master electrician business shall be principally engaged in the business of performing electrical work in or on buildings, premises or lots in the city.

4. In the case of a partnership or corporation, a master electrician's license may be separately held by more than one partner or officer as a representative of such partnership or corporation; however, only one master electrician shall be the responsible representative of such corporation or partnership. Under no circumstances shall any one licensee represent more than one business at any one time.

5. A master electrician representing a master electrician business shall, during the hours the business is engaged in the performance of electrical work, devote his or her full time to the operation of such business.

6. The holder of a master electrician's license shall be issued a seal, of a design *or form*

authorized by the commissioner, bearing the holder's full name, license number, and the legend "licensed master electrician." Applications for permits [and certificates of electrical inspection,] and any other document [which] *that* the commissioner may require to be filed with the department, shall bear the stamp of the seal as well as the signature of the responsible representative of the master electrician business or, if the business is a partnership or corporation, such document may bear the stamp of the seal and the signature of a master electrician [associated with] *who files on behalf of* such business acting pursuant to a written delegation, filed with the department, from the responsible representative of such business. *For applications and other documents submitted electronically, the digital signature and imprint of the seal may be submitted in a manner authorized by the commissioner.* The responsible representative of a business may not delegate such authority to a master electrician who is not an officer of such corporation or a partner of such partnership. Such person shall personally sign applications for permits, [and certificates of electrical inspection.] The responsible representative of a business shall have the authority to make final determinations and shall have full responsibility for the manner in which the work is done, except that where work is done under a permit issued pursuant to an application bearing the signature and seal of a master electrician acting pursuant to a written delegation from the responsible representative of such business, both the responsible representative of such business and the master electrician who signed and affixed his or her seal to the application for such permit shall be jointly and severally responsible for the manner in which the work is done.

7. The holder of a master electrician's license shall report [promptly] in writing to the license board any change in the place of business *within thirty days of such change. If such change occurs prior to issuance of the license, an applicant shall report the change to the license board within fourteen days of the change.*

8. The approval of a master electrician business is valid only as long as the responsible representative identified on the application for approval of the master electrician business actively participates in the actual operation of the business. In the event a responsible representative leaves a master electrician business, both the representative and the business must notify the license board within [such time as shall be provided by rule] *thirty days of the change.* A corporation or

partnership must notify the license board of the death of a responsible representative within thirty days after such death. Failure to do so shall be deemed sufficient cause for suspending or revoking the approval to do business of the master electrician business or the license of the master electrician. *The decedent licensee's legal representative may, with the commissioner's consent, retain the licensee's license and seal for the purpose of completing all unfinished work of such licensee for which plans have been approved and permits issued, provided that such work is performed by or under the direct supervision of a licensed electrician.* Except as otherwise provided by rule, a master electrician business whether in the form of a corporation, a partnership or a sole proprietorship, may continue to engage in the business of performing electrical work only so long as the responsible representative of such business identified on the application for approval of the master electrician business remains an officer of such corporation, a partner of such partnership or the proprietor of such sole proprietorship unless the department approves a change in the responsible representative as provided in this section. The commissioner may promulgate rules providing for the continuation of a master electrician business pending the approval of a new responsible representative. Except as otherwise provided in such rules, the revocation, suspension, voluntary surrender or non-renewal of the master electrician's license of the responsible representative of a master electrician business automatically revokes its approval to do business and cancels any delegation of authority given by such responsible representative to another master electrician associated with such business pending the approval by the department of a new responsible representative.

9. Except as otherwise provided by rule, a master electrician business shall not change its name, form or designate a new responsible representative without the prior approval of the license board. Approval of an application for a change is conditional upon the following: Filing the necessary forms, payment of the prescribed fee and full payment of all fees incurred with respect to such business prior to the date of the change. Except as otherwise provided by rule, a master electrician may not be approved as the responsible representative of a master electrician business if there are any outstanding fees due and owing to the department or outstanding violation notices attributable to him or her as responsible representative of another master electrician business.

10. A master electrician's license and a special electrician's license and seal shall not be held by any person at the same time.

11. The holder of a master electrician's license, upon entering employment as a special electrician, shall surrender his or her master electrician's license and seal and change over to a special electrician's license and seal to cover the building, buildings, or parts thereof, for which he or she will be employed.

12. All business vehicles, advertising, websites and stationery used in connection with electrical work required to be performed under a license issued to a master electrician shall display prominently in a manner provided by rule the words "N.Y.C. Licensed Electrician", the license number of the responsible representative of such business and of all other master electricians associated with such business, the authorization number of the master electrician business and the business address. If the business is conducted under a trade name, or is a partnership or corporation, the trade name, partnership, or corporate name shall be displayed prominently in a manner provided by rule.

13. Nothing in this chapter shall be construed to prevent two or more master electrician businesses from entering into a joint venture of limited duration for a particular project in accordance with the rules of the department. An application for a permit [or certificate for electrical work] involving a joint venture shall so indicate on the application and shall identify all of the master electrician businesses that are parties to such joint venture by name and authorization number and the names and license numbers of the responsible representatives of such businesses. The application shall be signed by the responsible representative of one of the parties to the joint venture on behalf of all such parties and all of such parties shall be jointly and severally liable for any fees due with respect to electrical work performed by such joint venture and for violations of this chapter and the rules of the department arising out of such work.

b. Special electrician's license.

1. A special electrician shall at all times have a place of business at a specified address in the city *at which the licensee may be contacted by the department by mail, telephone or other modes of communication*. His or her license shall [at all times be prominently displayed at such a

place of business, and shall] plainly indicate the address or addresses of the building, buildings or parts thereof for which such license is issued.

2. The commissioner may issue more than one special license for a building or buildings if, in the commissioner's judgment, he or she deems it necessary for the proper operation and maintenance of the electric wiring and equipment of the building or buildings involved.

3. The holder of a special electrician's license shall report *in writing* any change in employment to the license board *within thirty days of the change. If such change occurs prior to issuance of the license, an applicant shall report the change to the license board within fourteen days of the change.*

4. The holder of a special electrician's license shall be issued a seal, of a design *and form* authorized by the commissioner, bearing the holder's full name, license number, and the legend "licensed special electrician." Applications for permits [and certificates of electrical inspection,] and any other document [which] *that* the commissioner may require to be filed with the department, shall bear the stamp of the seal as well as the signature of a person holding such license. Such person shall personally sign applications for permits [and certificates of electrical inspection] and shall have the authority to make final determinations and full responsibility for the manner in which the work is done. *For applications and other documents submitted electronically, the digital signature and imprint of the seal may be submitted in a manner authorized by the commissioner.*

§5. Subdivisions b and e of section 27-3014 of the administrative code of the city of New York, as amended by local law number 64 for the year 2001, are amended to read as follows and section 27-3014 is amended by adding a new section f to read as follows:

b. No license [or seal] shall be transferable. *The seal is the property of the department and is not transferable by the licensee.*

e. Each license and seal shall be issued for [the calendar] *one* year [during which they are issued] and the full fee shall be payable irrespective of the date of issue.

*f. Not more than one license and/or seal shall be issued to an individual and no individual shall make or cause to be made a duplicate of such license or seal.*



§6. Subdivision a of section 27-3015 of the administrative code of the city of New York, as amended by local law number 81 for the year 2003, is amended to read as follows:

a. Any license and seal issued hereunder *shall expire one year from the year of issuance on the licensee's date of birth for that year irrespective of the date of issue. Such license* may be renewed *every year thereafter* without examination, provided application for such renewal, accompanied by the renewal fees prescribed above and such information as may be required by the commissioner to ensure compliance with section 27-3016 of this chapter[,] *and evidence of insurance coverage in compliance with section 27-3013 of this chapter,* shall have been filed prior to the expiration of the existing license. Where an applicant can show good and sufficient cause for his or her inability to renew his or her license and seal before its expiration, the commissioner may, within [thirty] *ninety* days after the expiration of such license, permit the issuance, without examination, of a new license and seal upon payment of the prescribed fees for such new license and seal within said [thirty] *ninety* days. No license shall be renewed and no new license and seal shall be issued unless all outstanding fees required by section 27-3018 of this code have been paid. *Renewal shall also be subject to the licensee's good moral character. As provided in department rule, the licensee's failure to clear open violations in a timely manner may result in the refusal to renew a license until the violations are resolved.* The commissioner may promulgate rules requiring applicants for the renewal of master or special electrician's licenses to submit proof, in such form as he or she shall determine, that, in each year of the license term, such applicant completed at least ten hours of continuing education courses approved by the department. Such proof shall be submitted not less than two months prior to the expiration of the license term.

§7. Paragraph (1) of subdivision a and subdivision b of section 27-3016 of the administrative code of the city of New York, as amended by local law number 64 for the year 2001, are amended to read as follows:

a. 1. After notice and the opportunity for a hearing in accordance with the rules of the department, master electrician's or special electrician's licenses and/or approvals of master electrician businesses may be suspended or revoked by the commissioner or the commissioner may impose penalties, which shall not exceed [one] *five* thousand dollars for each violation, for

violation of *this chapter or of* any of the rules of the department and, among other things, for any of the following causes:

(i) [Failure to display license certificate at the established place of business.

(ii)] Failure to file an application for a permit or inspection.

[(iii)] (ii) Failure, upon receipt of a notice of violation, to take the action called for in such notice.

[(iv)] (iii) Performance of electrical work in a manner contrary to the requirements of the electrical code or the electrical code technical standards.

[(v)] (iv) Contract work by holders of special electrician's licenses.

[(vi)] (v) Fraudulent dealing or misrepresentation.

[(vii)] (vi) Subject to applicable provisions of the correction law, conviction of a crime by a court of competent jurisdiction.

[(viii)] (vii) False statement in an application for a license or the renewal of a license or in an application for approval of a master electrician business or other application or certification required by this code or the rules of the commissioner, or in any proof or instrument in writing in connection therewith.

[(ix)] (viii) Failure to pay outstanding fees owed pursuant to section 27-3018 of this chapter.

b. In the event the holder of a master electrician's license is no longer engaged in a master electrician business or a special electrician is engaged during normal working hours in a business activity [which] *that* does not involve the installation, alteration, or repair of electrical wiring for light, heat or power, then he or she shall so notify the department and submit his or her license and seal for voluntary surrender with the provision that[,] (i) such license and seal will be restored without fee or examination if such application is made prior to the date on which it would have otherwise expired, or (ii) if application is made after such date a new license and seal will be issued, without written re-examination, after the submission of satisfactory evidence that the applicant has been engaged in the electrical field during the period of surrender; provided that at the time of the submission of the license for voluntary surrender:

1. All outstanding fees required by section 27-3018 of this chapter are paid, and
2. There are no outstanding violation notices for electrical work performed under such license, and
3. Open applications [for certificates of electrical inspection] filed under such license have been scheduled for inspection in accordance with department procedures, re-filed by another licensee or have been withdrawn.

§8. Subdivision b of section 27-3017 of the administrative code of the city of New York, as amended by local law number 64 for the year 2001, is amended to read as follows:

b. False statement. No person shall, with intent to defraud or deceive, knowingly make a false statement, or cause or procure to be made or aid and assist in the making of a false statement in an application for a master electrician's or special electrician's license or for certification as a low voltage installer or in an application for approval of a master electrician business or the renewal of a license or certificate or in an application for a permit [or certificate of electrical inspection] and approval or in any application provided for in this chapter, or in any proof or instrument in writing in connection therewith, or in any examination hereunder, deceive or substitute or cause another to deceive or substitute.

§9. The administrative code of the city of New York shall be amended by adding a new section 27-3017.1 to read as follows:

*§ 27-3017.1 Cooperation required. a. Any person, including any corporation, partnership, business or other entity, issued a license by the department shall, pursuant to a request or order of the commissioner or any city agency or office, cooperate fully and completely with respect to any department or city agency or office investigation. Evidence of cooperation shall include, but is not limited to, appearing before the department or other city agency or office, answering questions completely and accurately, and providing any and all requested documents. Failure to comply with such request or order may subject such person to disciplinary measures authorized by law, including but not limited to suspension or revocation of the license.*

*b. Service of request or order. Such request or order by the commissioner or other city agency or office shall be mailed by regular mail to the person named therein to his or her last*

*known business address or home address at least ten days before such appearance and shall contain the name of the person, the date, time and place of such appearance and, if known or applicable, a description of any requested documents. If the appearance or information is required immediately, the request or order may be transmitted via facsimile or delivered to the person's last known business or home address prior to the date and time specified therein.*

§10. Section 27-3018 of the administrative code of the city of New York, as amended by local law number 81 for the year 2003, is amended to read as follows:

§ 27-3018 Inspection; application for permit [and inspection certificate,] *and* application fees [,and certificate of inspection]. - a. The commissioner or any officer or employee of the department authorized thereto by the commissioner, or any other person designated by the commissioner pursuant to section 27-3005 of this code, may enter or go upon any premises in or upon which there are any wiring or appliances for electric light, heat or power to make an inspection of the same. Any person who willfully refuses to permit such entry or inspection, shall be guilty of a violation of this subdivision, and upon conviction thereof, shall be punished by a fine of not more than fifty dollars, imprisonment for a period not exceeding thirty days, or both.

b. Before commencing any electrical work, other than low voltage electrical work, a master electrician business or special electrician shall file with the commissioner an application for a *work permit to be issued by the department* [and, if applicable, certificate of electrical inspection for such work on a form prescribed by the commissioner]. No such work shall be performed until the commissioner has reviewed and approved such application and issued an appropriate permit for such work. The permit shall be conspicuously posted at the work site at all times while the work is in progress. Each permit shall be issued with an expiration date *of three years*. [to be determined in accordance with the rules of the department, but not less than one year after the date of issuance. An expired permit may be renewed in accordance with the rules of the department upon payment of a renewal fee as set forth in such rules.]

c. The fee for a permit for minor electrical work as described in subdivision h of this section shall be fifteen dollars, payable upon filing of the application.

d. 1. The fee for electrical work requiring a *permit* [certificate of electrical inspection or

other authorization shall be computed in accordance with paragraph two of this subdivision and] shall be payable as follows: forty dollars upon filing of the application for such work and the balance of the total fee[, prior to the issuance of a certificate of electrical inspection or other authorization or as otherwise provided by rule ] *upon an electrical sign-off from the department.*

2. The fee for electrical work requiring a [certificate of electrical inspection or other authorization] *work permit by the department* shall be computed as follows but shall not exceed five thousand dollars:

(i) Each outlet, each fixture, each horsepower or fraction thereof of a motor or generator, each kilowatt or fraction thereof of a heater, each horsepower or fraction thereof of an air conditioner, each kilovolt-ampere or fraction thereof of a transformer installed, altered or repaired shall be assigned the value of one unit. In computing the aforementioned fee, the sum of the units will determine the charges as set forth herein below:

Sum of units Fee

1-10 .....	\$ 0.00
Over 10.....	0.25 per unit

(ii) For each service switch installed, altered or repaired:

0-100 Amperes.....	\$ 8.00
101-200 Amperes.....	\$ 30.00
201-600 Amperes.....	\$ 105.00
601-1200 Amperes.....	\$ 225.00
Over 1200 Amperes.....	\$ 375.00

(iii) For each set of service entrance cables and for each set of feeder conductors installed, altered or repaired:

Up to #2 Conductors.....	\$ 15.00
Over #2 to #1/0 Conductors.....	\$ 30.00
Over #1/0 to 250 MCM.....	\$ 45.00
Over 250 MCM.....	\$ 75.00

(iv) For each panel installed, altered or repaired:

1 Phase up to 20-1 or 10-2 pole cutouts or breakers.....	\$ 15.00
1 Phase over 20-1 or 10-2 pole cutouts or breakers.....	\$ 37.50
3 Phase up to 225 amperes.....	\$ 50.00
3 Phase over 225 amperes.....	\$ 75.00
(v) (a) For each sign manufactured (in-shop inspections) .	\$ 40.00
(b) For each sign manufactured (on-site inspections):	
0 to 30 square feet.....	\$ 65.00
31 to 60 square feet.....	\$ 90.00
Over 60 square feet.....	\$ 115.00
(vi) For each elevator:	
10 floors or less.....	\$ 125.00
Each additional ten or fewer floors.....	\$ 83.00
(vii) For wiring or rewiring boiler controls in buildings:..	\$ 12.00

3. If, after inspection, such wiring or appliances shall be found to have been installed, altered or repaired in conformity with the requirements of this chapter, the electrical code, the electrical code technical standards and the rules of the department, and the required fees paid, the commissioner shall issue to the applicant a [certificate of electrical inspection] *sign-off of the approved work completed*. The provisions of this subdivision shall not apply to work performed pursuant to a permit for minor electrical work as defined in subdivision h of this section.

e. Whenever a master electrician business or special electrician files an application for a permit [or certificate of electrical inspection] covering electrical work installed by an unlicensed or unauthorized person, it shall be his or her duty to specify such fact upon the application.

f. The commissioner shall be entitled to charge the following special fees:

1. For an application with respect to electrical work made after a violation was issued for failure to file an application for a permit [or a certificate of electrical inspection] for such work — up to ten times the total fee [which] *that* would otherwise be payable as set forth in subdivisions c and d of this section.

2. Duplicate copy of notice of violation — \$5.

[3. Duplicate copy of certificate of electrical inspection -- \$7.50

4. Letter in lieu of certificate of electrical inspection -- \$20.00]

g. No application or fees shall be required for electrical work relating to the construction and maintenance of city street lights and city traffic lights owned, operated or controlled by the city government or any agency thereof.

h. 1. For purposes of this section a permit for minor electrical work may be issued for any of the following:

(i) replacement of defective circuit breakers or switches rated thirty amperes or less, excluding main service disconnects;

(ii) replacement of parts in electrical panels where voltage does not exceed one hundred fifty volts to ground;

(iii) replacement of minor elevator parts as defined by rule;

(iv) replacement of defective controls rated at thirty amperes or less;

(v) repair of defective fixtures;

(vi) replacement of fixtures in existing outlets, provided the number of such fixtures does not exceed five and does not increase existing wattage;

(vii) replacement, repair, disconnection or reconnection of motors not to exceed one horsepower, and associated devices;

(viii) repairs to low pressure heating plants with a capacity of less than fifteen pounds per square inch, except as may otherwise be required by rule of the commissioner.

(i) installation of any ten or fewer units not requiring the installation of an additional branch circuit;

(j) installation of motors of fractional horsepower;

(k) installation of transformers rated at one thousand volt amperes or less.

2. Notwithstanding any other provision of this chapter, [a certificate of electrical inspection or other authorization ] *an electrical sign-off by the department* shall not be required for electrical work performed pursuant to a permit for minor electrical work.

3. Notwithstanding any other provision of this chapter, the commissioner may

promulgate a rule providing that minor electrical work may be performed without a permit or the payment of a fee under the conditions to be prescribed in such rule.

i. The department shall not issue a permit or, if applicable, [a certificate of electrical inspection or other authorization] *an electrical sign-off* pursuant to an application [which] *that* involves the energizing of a meter in a one-, two-, three-, or four-family residence, if the department finds that such action will cause the total number of meters for the building to exceed the number of dwelling units specified for such building in the certificate of occupancy, or if there is no certificate of occupancy, as determined by the department, except as permitted herein. A building specified as a one-family residence in the certificate of occupancy or, if there is no certificate of occupancy, as determined by the department, may have only one electric meter. A building in which two or more dwelling units have been constructed in accordance with the certificate of occupancy, or if there is no certificate of occupancy, as determined by the department, may have one meter for each dwelling unit and one additional meter for the common areas of the building, provided that smoke detecting devices are installed in all common areas in accordance with departmental requirements. Such common areas may include boiler rooms, shared hallway lighting, shared stairway lighting, and outdoor perimeter lighting but shall not include any habitable space. In the event that a meter has been found to have been installed or to exist in violation of this section, the [department's bureau of electrical control] *department* may take action leading to the disconnecting of such meter in accordance with the notice requirements set forth in section 27-3020 of this code.

j. Any application for a permit [and, if applicable, certificate of electrical inspection] filed with the department in relation to a request for the authorization to power or energize electrical wiring or appliances or in relation to work [which] *that* will result in the issuance of a new or amended certificate of occupancy must include [from the building owner or his/her authorized representative, a signed authorization as prescribed by the department, permitting such work to be performed] *a statement, signed and sealed by the electrician, that the building owner or his or her authorized representative has authorized in writing the work to be performed. This signed authorization must be available upon request by the department.* In addition, any electrical



application filed with the department involving the energizing of a meter, must include, as well, a statement, *signed and sealed by the electrician, that the building owner or his or her authorized representative has indicated in writing* [from the owner or his/her authorized representative indicating] the intended use or purpose of such meter and *has affirmed* [affirming] that such meter will be maintained in compliance with the provisions of this section. *This statement must be available upon request by the department.* Any individual who knowingly misrepresents the use of a meter or allows a meter to be used in violation of the provisions of this section shall be guilty of a misdemeanor punishable by a fine of not less than one thousand dollars nor more than five thousand dollars, or imprisonment of not more than six months or both such fine and imprisonment. Such person shall also be liable for a civil penalty of not more than five thousand dollars which may be recovered by the corporation counsel in an action or proceeding in any court of competent jurisdiction.

k. Any authorization to power or energize electrical wiring or appliances issued by the department shall expire ninety days after the date of issuance unless a [certificate of electrical inspection] *sign-off* has been issued by the department or an extension of such authorization has been granted by the department. In the event no such [certificate of electrical inspection] *sign-off* has been issued or extension authorization granted, the department may take action leading to the disconnecting of such meter(s) in accordance with the notice requirements set forth in section 27-3020 of this code.

*l. An application for a work permit may be amended by filing with the department a post-approval amendment in a form prescribed by rule of the department.*

§11. Section 27-3019 of the administrative code of the city of New York, as amended by local law number 64 for the year 2001, is amended to read as follows:

§ 27-3019 Modification, suspension or revocation [of certificate of inspection], *electrical sign-off*, permit or other authorization. - The commissioner may at any time by an order in writing for good cause shown, modify, suspend or revoke any [certificate of electrical inspection,] *sign-off*, permit or other authorization issued pursuant to this chapter, but no such order shall be effective unless the same shall state specifically the reason therefor. A copy of any such order

shall be served in the manner provided in this subchapter, within five days after its date, upon any person, partnership or corporation affected thereby, who has not applied to the commissioner for such modification, suspension or revocation. No person other than the commissioner or an officer or employee of the department, duly authorized thereto by the commissioner, shall alter or amend any [certificate of electrical inspection,] *sign-off*, permit or other authorization issued pursuant to this chapter or the rules of the department.

§12. Subdivision a of section 27-3020 of the administrative code of the city of New York, as amended by local law number 64 for the year 2001, is amended to read as follows:

a. Except as otherwise provided in this code, no person, partnership or corporation shall supply, or cause to be supplied or used, electrical energy for light, heat or power, signaling, alarm or data transmission to any wiring or appliance in any building unless a [certificate of electrical inspection] *sign-off* or other authorization as set forth in the rules of the department authorizing the use of said wiring or appliance shall have been issued by the commissioner.

§13. Section 27-3021.1 of the administrative code of the city of New York, as renumbered and amended by local law 64 for the year 2001, is amended to read as follows:

§ 27-3021.1 Electric meter installation; restriction. No public utility shall supply electricity to a one, two, three or four family residence building, nor shall such utility energize more electrical meters in a building than the number of distinct and separate residences in such building as authorized in the certificate of occupancy applicable thereto, or if there is no certificate of occupancy, as determined by the department, without first receiving a *sign-off* [certificate of electrical inspection or other authorization] from the *department*. [department's bureau of electrical control.] In the event that an owner of a one, two, three or four family building wants to install an additional electrical meter other than provided for herein, approval shall be obtained in writing from the [bureau of electrical control in the] department [of buildings]. A public utility shall not install such additional electrical meter without such approval. A building in which two or more dwelling units have been constructed in accordance with the certificate of occupancy, or if there is no certificate of occupancy, as determined by the department, may have one meter for each dwelling unit and one additional meter for the common areas of the building, provided that

smoke detecting devices are installed in all common areas in accordance with departmental requirements. Such common areas may include boiler rooms, shared hallway lighting, shared stairway lighting, and outdoor perimeter lighting but shall not include any habitable space. In the event that a meter has been found to have been installed or to exist in violation of this section, the utility must report such findings to the *department*, [bureau of electrical control,] which may take action leading to the disconnecting of such meter in accordance with the notice requirements set forth in section 27-3020 of this code.

§ 14. Section 27-3024 of the administrative code of the city of New York, as amended by local law number 81 for the year 2003, is amended to read as follows:

§ 27-3024. Adoption of the electrical code technical standards. a. The city of New York hereby adopts the [2002] 2005 edition of the National Fire Protection Association NFPA 70 National Electrical Code as the minimum requirements for the design, installation, alteration or repair of electric wires and wiring apparatus and other appliances used or to be used for the transmission of electricity for electric light, heat, power, signaling, communication, alarm and data transmission in the city subject to the amendments adopted by local law and set forth in section 27-3025 of this subchapter, which shall be known and cited as “ the New York city amendments to the [2002] 2005 National Electrical Code”. Such [2002] 2005 edition of the National Fire Protection Association NFPA 70 National Electrical Code with such New York city amendments shall together be known and cited as the “electrical code technical standards”. The commissioner shall make a copy of the electrical code technical standards available for public inspection at the department of buildings.

b. No later than [September thirtieth, two thousand three and on or before] August thirty-first, *two thousand nine and on or before such date* in every third year thereafter, the commissioner shall submit to the city council proposed amendments that he or she determines should be made to the electrical code technical standards to bring them up to date with the latest edition of the National Fire Protection Association NFPA 70 National Electrical Code or otherwise modify the provisions thereof. [The city council shall act upon such proposal within ninety days.] In addition, prior to the submission of such proposal to the city council, such

proposal shall be submitted to an advisory committee established by the commissioner pursuant to this chapter for review and comment.

§15. Section 27-3025 of the administrative code of the city of New York is REPEALED and a new section 27-3025 is added to read as follows:

*§ 27-3025 The New York city amendments to the 2005 National Electrical Code. The following New York City amendments to the 2005 National Electrical Code are hereby adopted as set forth in this section. In the event of conflicts between technical provisions, the more restrictive shall apply:*

*2005 NEC New York City Amendment*

## **ARTICLE 100**

### **Definitions**

*Add a new definition for “Electric Closet”, in front of “Electric Sign”, to read as follows:*

***Electric Closet.*** *A room containing substantial electrical distribution equipment such as vertical risers, bus ducts, transformers or panelboards.*

## **ARTICLE 110**

### **Requirements for Electrical Installations**

#### **SECTION 110.2**

*Section 110.2 - Revise to read as follows:*

#### **110.2 Approval of Electrical Materials, Equipment and Installations.**

***(A) Listed and Approved Materials and Equipment.*** *All electrical equipment, apparatus, materials, devices, appliances or wiring thereto installed or used in any*

*electrical construction or installation regulated by the terms of this Code, shall be designed and constructed so as to be safe and suitable for the purpose intended.*

*(1) All electrical equipment, apparatus, materials, devices, appliances and wiring used in New York City shall be acceptable to the Commissioner of Buildings, with submittals required in accordance with rules of the Department of Buildings.*

*(2) The maker's name, trademark or other identification, symbol and number shall be placed on fittings, equipment and materials. Other markings shall be provided, giving voltage, current, wattage or other appropriate ratings as are prescribed elsewhere in this Code.*

***(B) Installations.*** *All electrical installations regulated by the terms of this Code shall be designed and constructed so as to be safe and suitable for the purpose intended.*

*No electrical installations as described in (1) through (5) below shall be constructed unless a submittal for approval has been made to the Commissioner of Buildings and approval has been granted. For the purpose of this section an electrical "installation" shall refer to the installation of service equipment, transformers, UPS systems, generators, generator paralleling equipment or other sources.*

*(1) A new installation of new equipment totaling 1000 kVA or larger.*

*(2) Any change in an installation with a rating of 1000 kVA or larger, up to and including 2<sup>nd</sup> level overcurrent protection unless it was fully described and approved as "future" on the original approved plan.*

*(3) Any addition to an existing installation, which would bring the total to 1000 kVA or larger.*

*(4) The addition of any equipment in a room, which would affect clearances around the equipment of a 1000 kVA installation.*

*(5) A new installation or revised installation above 600V irrespective of kVA rating.*

*Exception No. 1: No submittal is required solely for Fire Alarm service taps.*

*Exception No. 2: No submittal is required for the addition of one 2<sup>nd</sup> level overcurrent protection device 200 amperes or less.*

***(C) Capacity.***

*(1) The capacity of a utility service, in kVA, shall be determined by summing the maximum ampere ratings of each service disconnecting means and calculating total kVA at the operating voltage. Service disconnecting means supplying fire pumps shall be included at 125% of the fire pump full load amps. The calculation shall include all new and existing service disconnecting means supplied from the common service entrance.*

*(2) The capacity of a transformer, UPS system, generator or other source shall be its maximum KVA output rating.*

*FPN: See 90.7, Examination of Equipment for Safety, and 110.3, Examination, Identification, Installation, and Use of Equipment. See definitions of Approved, Identified, Labeled, and Listed.*

**SECTION 110.4**

*Section 110.4 - Add a FPN at the end of the section to read as follows:*

*FPN: See Section 27-3004 of the Administrative Code for the definitions of Low Voltage Electrical Work and Low Voltage Installer, and Section 27-3016.1 for the certification requirements of a Low Voltage Installer.*

**SECTION 110.8**

*Section 110.8 - Add a new sentence at the end of the section to read as follows:*

*Refer to the New York City Amendments to the 2005 National Electrical Code.*

**SECTION 110.25**

*Section 110.25 - Add a new section 110.25 to read as follows:*

*110.25 Electric Closets. Electric closets shall be dedicated to electrical distribution equipment. Electric closets shall be identified as such, shall be sized to provide the applicable working space requirements, and shall not be used for any other purpose including storage.*

**SECTION 110.26**

*Subsection 110.26(G) - Add a new subsection 110.26(G) to read as follows:*

*(G) Network Compartments. All network compartments shall have at least two means of access. Each door shall access an area that leads to a legal exit.*

**SECTION 110.31**

*Section 110.31 - Revise the second sentence of the second paragraph to read as follows:*

*A fence shall not be less than 2.44m (8 ft) in height.*

*Subsection 110.31(A) - Revise the second sentence of the subsection by replacing “102 mm (4 in.)” with “150 mm (6 in.).”*

### **SECTION 110.33**

*Subsection 110.33(A) - Revise the first sentence of the subsection to read as follows:*

*At least one entrance not less than 762 mm (30 in.) wide and 2 m (6½ ft) high shall be provided to give access to the working space around the electrical equipment.*

### **SECTION 110.34**

*Subsection 110.34(A) - Revise the last sentence of the Exception to read as follows:*

*Where rear access is required to work on de-energized parts on the back of enclosed equipment, a minimum working space of 900 mm (36 in.) horizontally shall be provided.*

## **ARTICLE 210**

### **Branch Circuits**

#### **SECTION 210.11**

*Subsection 210.11(C)(4) - Add a new subsection 210.11(C)(4) to read as follows:*

*(4) **Air-Conditioning Branch Circuit.** In addition to the number of branch circuits required by other parts of this section, an individual branch circuit shall be provided for each air-conditioning receptacle required by 210.52(I).*



**SECTION 210.12**

*Subsection 210.12(B) - Delete “until January 1, 2008” in the second paragraph.*

**SECTION 210.18**

*Section 210.18 – Revise to read as follows:*

***210.18 Guest Rooms, Guest Suites, Studio Apartments, Single Room Occupancies and Dormitories.***

***(A) Guest Rooms and Guest Suites.*** *Guest rooms and guest suites that are provided with permanent provisions for cooking shall have branch circuits and outlets installed to meet the rules for dwelling units.*

***(B) Studio Apartments, Single Room Occupancies and Dormitories.*** *Sleeping areas of studio apartments, single room occupancies and dormitories shall have branch circuits and outlets installed to meet the rules for dwelling units.*

**SECTION 210.19**

*Subsection 210.19(A)(1) - Add a new sentence at end of the paragraph before the exception to read as follows, and delete FPN No. 4:*

*Conductors of branch circuits shall be sized to allow for a maximum voltage drop of 3% at the last outlet supplying light, heat or power and the maximum voltage drop allowable for feeders and branch circuit combined shall not exceed 5%.*

*Subsection 210.19(A)(4) - Revise by changing the number at the end of the first sentence from “14 AWG ” to “ 12 AWG ”.*

**SECTION 210.24**

*Table 210.24 - Revise table by changing the numbers within the Circuit Rating section from  
“14” to “12.”*

**SECTION 210.52**

*Subsection 210.52(E)(1) - Add a new subsection 210.52(E)(1) to read as follows:*

*(1) **Balconies, Decks and Porches.** Balconies, decks and porches that are directly accessible from inside the dwelling shall have at least one receptacle outlet installed at the balcony, deck or porch.*

*Subsection 210.52(I) - Add a new subsection 210.52(I) to read as follows:*

*(I) **Outlet Requirements For Residential-Type Occupancies.** In addition to the requirements set forth in subsections (A) through (H) of this section, living rooms, bedrooms, and dining rooms shall have at least one receptacle outlet installed for air conditioners. Such outlets shall be supplied by an individual branch circuit.*

*Exception: Buildings with central air conditioning systems that serve any of the above areas shall not require separate outlets in those areas.*

**ARTICLE 215**

**Feeders**

**SECTION 215.2**

*Subsection 215.2(A)(1) - Add two new sentences at the end of the first paragraph, before the*

*Exception, to read as follows:*

*Feeder conductors shall be sized so that the maximum voltage drop at the last overcurrent device does not exceed 3% and the total maximum voltage drop of feeder and branch circuit conductors to the last outlet does not exceed 5%. The minimum feeder size to any dwelling unit shall not be smaller than three 8 AWG copper or 6 AWG aluminum or copper-clad aluminum conductors.*

*- Number the existing Exception as Exception No. 1, and add two new Exceptions No. 2 & No.3 and a FPN, to read as follows:*

*Exception No.2: For residential occupancies and portions of the electrical system of mixed use buildings serving exclusively residential occupancies, the maximum voltage drop from the service point to the last overcurrent device shall not exceed 4% and the total maximum voltage drop to the last outlet shall not exceed 5%.*

*Exception No.3: Where the distance between the utility service point and the service disconnecting means exceeds 15.2 m (50 ft), the voltage drop between the service point and the service disconnecting means may be calculated utilizing the service capacity limits defined by the utility company in lieu of the computed load. The distance between the service point and the service disconnecting means, the computed load and a letter on utility company letterhead indicating service limits shall be submitted for approval.*

*-*

*FPN: When using Exception No.3, potential future increases in the utility service capacity limits should be considered to avoid exceeding voltage drop limits at a later date.*

*Subsection 215.2(A)(3) - Delete the fine print note (FPN) No. 2.*

- Renumber FPN No.3 as FPN No.2, and revise to read as follows:

*FPN No. 2: See amended 210.19(A) for voltage drop on branch circuits.*

**SECTION 215.5**

*Section 215.5 - Revise the first sentence to read as follows:*

*A diagram showing feeder details shall be provided prior to the installation of the feeders.*

**ARTICLE 220**

***Branch-Circuit, Feeder, and Service Calculations***

**SECTION 220.14**

*Subsection 220.14(M) - Add a new subsection 220.14(M) to read as follows:*

***(M) Air Conditioning Circuits – Dwelling Unit.*** *A load not less than 1500 Volt-Amperes shall be included for each air conditioning outlet required by 210.52(I), if nameplate data is not available.*

**SECTION 220.87**

*Section 220.87 - Revise title to read as follows:*

***220.87 Optional Calculations for Determining Existing Loads.***

*- Delete “or service” from the first sentence.*

*Subsection 220.87(1) - Delete “or service” from the Exception.*

*Subsection 220.87(2) - Revise to read as follows:*

*(2) The maximum demand at 125 percent plus the new load does not exceed the ampacity of the feeder.*

*Subsection 220.87(3) - Revise to read as follows:*

*(3) The feeder has overcurrent protection in accordance with 240.4.*

*Subsection 220.87(4) – Add a new subsection 220.87(4) to read as follows:*

*(4) This section may not be used to determine service loads except by special permission.*

## **ARTICLE 225**

### **Outside Branch Circuits and Feeders**

#### **SECTION 225.10**

*Section 225.10 - Revise to read as follows:*

**225.10 Wiring on Buildings.** *The installation of outside wiring on surfaces of buildings shall be permitted for circuits not over 600 volts, nominal, as type MI cable, as messenger supported wiring, in rigid metal conduit, intermediate metal conduit and liquidtight flexible metal conduit where flexibility is needed. Circuits over 600 volts, nominal, shall be installed as provided in 300.37.*

#### **SECTION 225.11**

*Section 225.11 – Revise the first sentence to read as follows:*

*Where outside branch and feeder circuits leave or enter a building, the requirements of 230.54 shall apply.*

**SECTION 225.21**

*Section 225.21 - Delete in its entirety.*

**ARTICLE 230**

**Services**

**SECTION 230.7**

*Section 230.7 - Delete Exception No. 2.*

**SECTION 230.23**

*Subsection 230.23(B) - Revise the exception to read as follows:*

*Exception: By Special Permission.*

**SECTION 230.30**

*Section 230.30 - Delete the Exception.*

**SECTION 230.31**

*Subsection 230.31(B) - Revise to read as follows:*

**(B) Minimum Size.** *The conductors shall not be smaller than 4 AWG copper or 2 AWG aluminum or copper-clad aluminum.*

*Exception: Conductors supplying only limited loads of a single branch circuit — such as small polyphase power, controlled water heaters, and similar loads — shall not be smaller than 10 AWG copper or 8 AWG aluminum or copper-clad aluminum.*

**SECTION 230.40**

*Section 230.40 - Delete Exception No. 3.*

**SECTION 230.41**

*Section 230.41 - Delete the Exception.*

**SECTION 230.42**

*Subsection 230.42(A) - Revise to read as follows:*

**General.** *The ampacity of the service-entrance conductors before the application of any adjustment or correction factors shall not be less than (A)(1) or (A)(2) below. Loads shall be determined in accordance with Article 220. Ampacity shall be determined from 310.15 for respective conductor types at 75°C. When service-entrance conductors consist of bus\_bars contained in either service busway or other service equipment, bus sizing shall conform to the following table:*

**Table 230.42 Service Equipment Bus Bar Ampere Density**

Current Rating of Bus	Maximum Current Per Square Inch in Amperes			
	Ventilated Housing		Unventilated Housing	
	Copper Bar	Aluminum Bar	Copper	Aluminum Bar
Up to 1200 Amp	1000	750	800	600
1201 to 2000 Amp	800	600	700	525

001 Amp and greater            700                    525                    500                    375

(1)     *Ampacity of the service-entrance conductors for service below 1000 kVA shall not be less than either a or b:*

*(a) The sum of the noncontinuous loads plus 125 percent of the continuous loads.*

*(b) The sum of the noncontinuous loads plus the continuous loads if the service-entrance conductors terminate in an overcurrent device where both the overcurrent device and its assembly are listed for operation at 100 percent of their rating.*

(2)     *Ampacity of the service-entrance conductors for services 1000 kVA and larger shall not be less than the sum of the maximum ampere ratings of the service disconnecting means.*

*When including fire pump disconnects in the calculation, 125 percent of the fire pump full load amperes shall be added.*

*Exception: The ampacity of service-entrance conductors need not exceed the maximum demand capacity of the service. A maximum demand of 4000 amperes is assumed unless documentation stating otherwise is provided by the service utility.*

*FPN: See New York City Electrical Code Amendment 110.2(C)(1) for determining service capacity.*

**SECTION 230.43**

*Section 230.43 - Revise to read as follows:*

*230.43 Wiring Methods for 600 Volts, Nominal, or Less. Service-entrance conductors shall be installed in accordance with the applicable requirements of this Code covering the type of wiring method used and shall be limited to the following methods:*

*(1) Type IGS cable.*



- (2) Rigid metal conduit.*
- (3) Intermediate metal conduit.*
- (4) Electrical metallic tubing.*
- (5) Metallic wireways.*
- (6) Busways.*
- (7) Metallic auxiliary gutters.*
- (8) Mineral-insulated, metal-sheathed cable.*
- (9) Flexible metal conduit not over 1.83 m (6 ft) long or liquidtight flexible metal conduit not over 1.83 m (6 ft) long between raceways, or between raceway and service equipment, with equipment bonding jumper routed with the flexible metal conduit or the liquidtight flexible metal conduit according to the provisions of Section 250.102(A), (B), (C), and (E).*

*Service entrance conductors shall not be run within the hollow spaces of frame buildings.*

***SECTION 230.44***

*Section 230.44 - Delete section in its entirety.*

***SECTION 230.46***

*Section 230.46 - Revise to read as follows:*

***230.46 Unspliced Conductors.*** *Service-entrance conductors shall not be spliced before terminating at the service disconnecting means, except for the following terminations that are permitted:*

- (1) in a service end line box.*
- (2) taps supplying two to six service disconnecting means when grouped.*
- (3) approved terminals in meter enclosures.*

*(4) service-entrance conductors in the form of busway, shall be connected as required in order to assemble the various fittings and sections.*

**SECTION 230.49**

Section 230.49 - Revise to read as follows:

**230.49 Protection Against Physical Damage.** *Service-entrance conductors shall be protected against physical damage.*

**(A) Underground Service Entrance Conductors.** *Underground service entrance conductors shall enter the building in a listed and approved raceway. The raceway shall have an inside diameter of not less than 38 mm (1½ in.) or its equivalent area. Burial depths shall be in accordance with Section 300.5.*

**(B) Overhead Service Entrance Conductors.** *Overhead service entrance conductors shall enter buildings in threaded rigid conduit and threaded fittings.*

**(C) Interior Service Entrance Conductors.** *The mechanical protection shall enter a terminal box or service disconnecting means enclosure, or be made up directly to an equivalent approved device, enclosing all metal parts.*

*Exception No. 1: Metallic auxiliary gutters may contain up to 40 service entrance conductors without applying derating factors.*

*Exception No. 2: In existing installations, if a service disconnecting means is installed on a switchboard, which has exposed bus-bars on the back, the raceway may terminate at the rear panel of the switchboard. Insulated bushings shall be used unless lead-covered conductors are used.*

**SECTION 230.50**

*Subsection 230.50(A)(3) - Delete the subsection in its entirety.*

*Subsection 230.50(A)(4) - Delete the subsection in its entirety.*

**SECTION 230.52**

*Section 230.52 - Delete the section in its entirety.*

**SECTION 230.54**

*Section 230.54 - Revise to read as follows:*

**230.54 Overhead Service Locations.**

**(A) Raintight Service Head.** *Service raceways shall be equipped with a raintight service head at the point of connection to service-drop conductors.*

**(B) Service Heads Above Service-Drop Attachment.** *Service heads shall be located above the point of attachment of the service-drop conductors to the building or other structure.*

*Exception: Where it is impracticable to locate the service head above the point of attachment, the service head location shall be permitted not farther than 600 mm (24 in.) from the point of attachment.*

**(C) Separately Bushed Openings.** *Service heads shall have conductors of different potential brought out through separately bushed openings.*

**(D) Drip Loops.** *Drip loops shall be formed on individual conductors. To prevent the entrance of moisture, service-entrance conductors shall be connected to the service-drop conductors below the level of the service head.*

**(E) Arranged that Water Will Not Enter Service Raceway or Equipment.** *Service-drop conductors and service-entrance conductors shall be arranged so that water will not enter service raceway or equipment.*

#### **SECTION 230.64**

*Section 230.64 - Add a new section 230.64 to read as follows:*

##### **230.64 Service Rooms or Areas.**

**(A) General.** *The minimum sufficient working space shall be as provided in Section 110.26 or 110.34 as applicable, in order to assure the safety of operation, inspection, and repairs within the vicinity of the service equipment.*

**(B) Service Equipment Totaling 1000 kVA, or Larger.** *Where service equipment totaling 1000 kVA or larger is installed separately, or as part of a switchboard, the room in which such switchboard is located shall be constructed of noncombustible materials, and shall be of dimensions adequate to house the switchboard and to provide the following minimum clearances:*

*(1) At least 1.5 m (5 ft) in front of the switchboard if it is in one line, and at least 2.1 m (7 ft) in front of the board if boards are installed facing each other.*

*(2) At least 300 mm (12 in.) from the floor to any energized part of the switchboard, except by special permission.*

*(3) Where side and/or rear access is required, the following shall also apply:*

- At least 900 mm (3 ft) at each end of the board*
- At least 900 mm (3 ft) at the rear of the board clear of all obstructions or as specified in Table 110.26(A)(1) or Table 110.34(A) as applicable, whichever is greater.*

*(4) Front-only accessible switchboards may be installed 300 mm (12 in.) or less from a wall. However, if the front-only accessible switchboard is installed more than 300 mm (12 in.) from the wall, access must be sealed at each end or comply with the restrictions herein.*

*(5) Service equipment shall be arranged so that it is reachable from the entrance door without having to pass in front of, or behind any other electrical equipment in the room. This requirement shall be waived if a second entrance door is provided and located as remotely as practical from the first. Each door shall access an area, which leads to a legal exit.*

## **SECTION 230.70**

*Subsection 230.70(A)(1) - Revise to read as follows:*

***(1) Readily Accessible Location.*** *The service disconnecting means shall be installed at a readily accessible location inside of a building or structure nearest the point of entrance of the service conductors.*

*Exception: Service disconnecting means may be installed on the outside of residential buildings of one through four dwelling units.*

***Subsection 230.70(B) - Revise to read as follows:***

**(B) Marking.** Each service disconnecting means shall be permanently marked to identify it as a service disconnect. Each disconnecting means shall be marked to indicate the load served.

**SECTION 230.76**

Subsection 230.76 (A) - Add a new subsection 230.76 (A) to read as follows:

**(A) Service Equipment Totalling 1000 kVA or Larger.** Where remote control devices are used on service equipment or manually operated circuit breaker devices, it shall be the responsibility of the owner of the building or such owner's authorized agent to cause the opening and closing mechanism of each service switch or service breaker to be tested at least once every year. The testing need not be performed under load. A record showing the date and signature of the qualified person making the test shall be kept posted at the switch or circuit breaker.

**SECTION 230.82**

Subsection 230.82(1) - Revise to read as follows:

**(1) Cable limiters.**

**SECTION 230.94**

Section 230.94 - Revise Exception No. 3 to read as follows:

*Exception No. 3: Circuits for load management devices and emergency supply shall be permitted to be connected on the supply side of the service overcurrent device where separately provided with overcurrent protection.*

**SECTION 230.209**

*Section 230.209 - Add a Fine Print Note to read as follows:*

*FPN: Lightning protection systems installations. See NFPA 780-2004 Edition for lightning protection systems installation requirements.*

**ARTICLE 240**

**Overcurrent Protection**

**SECTIONS 240.12**

*Section 240.12 - Revise to read as follows:*

***240.12 Electrical System Coordination.** Rating and arrangement of service overcurrent devices, which have a rating above 601 amperes, shall be selectively coordinated. Such coordination shall provide a system of selective short circuit and overload protection between the service overcurrent protection and the second level overcurrent protection point. Where an orderly shutdown is required to minimize the hazard(s) to personnel and equipment, an additional overcurrent protection level is permitted. A system of coordination based on the following two conditions shall be permitted:*

- (1) Coordinated short-circuit protection.*
- (2) Overload indication based on monitoring systems or devices.*

*Exception No. 1: Service overcurrent devices which supply single loads (i.e., motors) shall not require coordination.*

*Exception No. 2: Coordination between the service overcurrent device and distribution main shall not be required where the service disconnecting means supplies a single main overcurrent device for a single distribution panel or switchboard. However, selective coordination shall be required between distribution branch devices, and between the service equipment and the main panel.*

*Exception No. 3: The provisions of this Section shall not apply to the operation of ground fault protection equipment.*

*FPN: The monitoring system may cause the condition to go to alarm, allowing corrective action or an orderly shutdown, thereby minimizing personnel hazard and equipment damage.*

#### **SECTION 240.20**

*Subsection 240.20(C) - Delete the subsection in its entirety.*

#### **SECTION 240.86**

*Section 240.86 - Add a FPN after first Paragraph to read as follows:*

*FPN: See 240.12 and 700. 27.*

### **ARTICLE 250**

#### **Grounding and Bonding**

#### **SECTION 250.52**

*Subsection 250.52(A)(1) - Delete the Exception.*



**ARTICLE 300**

**Wiring Methods**

**SECTION 300.3**

*Subsection 300.3(C)(1) - Add a new Exception No. 2 to read as follows:*

*Exception No. 2: Barriers shall be provided to isolate conductors energized from different sources when system voltage exceeds 250 volts nominal and conductors are protected by first or second level overcurrent protective devices. Sources include service entrance points, secondaries of different transformers, generators and UPS systems.*

**SECTION 300.5**

*Subsection 300.5(A) - Revise to read as follows:*

*(A) Requirements. Direct-buried cable or conduit or other raceways shall be installed to meet the minimum cover requirements of Table 300.5. Direct buried cable shall not be installed except by special permission from the Commissioner of Buildings.*

**SECTION 300.6**

*Subsection 300.6(B) - At the end of the subsection add a new sentence to read as follows:*

*Aluminum raceways and fittings shall not be permitted to be embedded in concrete.*

**SECTION 300.22**

*Subsection 300.22(C) - Revise the first sentence to read as follows:*

*This section applies to non-fire rated spaces used for environmental air-handling purposes other than ducts and plenums as specified in 300.22(A) and (B).*

**ARTICLE 326**

***Integrated Gas Spacer Cable: Type IGS***

**SECTION 326.80**

*Table 326.80 - Correct the ampacity error for the 1750 kcmil cable, from "344" to "315".*

**ARTICLE 328**

***Medium Voltage Cable: Type MV***

**SECTION 328.10**

*Section 328.10 - Revise to read as follows:*

**328.10 Uses Permitted.** *Type MV cables shall be permitted for use on power systems rated up to 35,000 volts nominal as follows:*

- (1) In wet or dry locations,*
- (2) In raceways.*

**SECTION 328.12**

*Section 328.12 - Revise to read as follows:*

**328.12 Uses Not Permitted.** *Type MV cable shall not be used:*

- (1) Where exposed to direct sunlight,*

*(2) In cable trays,*

*(3) Direct buried.*

**SECTION 328.80**

*Section 328.80 - Delete the last sentence.*

**ARTICLE 330**

***Metal-Clad Cable: Type MC***

**SECTION 330.10**

*Subsection 330.10(A)(1) - Delete the word "services".*

*Subsection 330.10(B)(3) - Delete the subsection in its entirety.*

*Subsection 330.10(B)(4) - Renumber as 330.10(B)(3).*

**SECTION 330.12**

*Subsection 330.12(5) - Add a new subsection 330.12(5) to read as follows:*

*(5) As service conductors.*

**ARTICLE 334**

***Nonmetallic-Sheathed Cable: Types NM, NMC, and NMS***

**SECTION 334.10**

*Section 334.10 - Revise to read as follows:*

**334.10 Uses Permitted.** *Type NM, Type NMC, and Type NMS cables shall be permitted to be used in the following:*

- (1) One- and two-family dwellings.*
- (2) Multifamily dwellings, except as prohibited in Section 334.12.*

*FPN: See Section 310.10 for temperature limitation of conductors.*

### **SECTION 334.12**

*Subsection 334.12(A)(1) - Revise to read as follows:*

- (1) In any multifamily dwelling exceeding three floors above grade.*

*Subsection 334.12(A)(11) - Add a new subsection 334.12 (A)(11) to read as follows:*

- (11) In non-residential buildings.*

### **SECTION 334.30**

*Sub-Section 334.30(C) – Delete in its entirety.*

## **ARTICLE 336**

### **Power and Control Tray Cable: Type TC**

### **SECTION 336.10**

*Subsection 336.10(6) – Delete the subsection in its entirety.*

**SECTION 336.12**

*Subsection 336.12(5) – Add a new subsection 336.12 (5) to read as follows:*

*(5) As fire alarm circuit wiring.*

**SECTION 336.104**

*Subsection 336.104(A) – Delete in its entirety.*

**ARTICLE 338**

***Service-Entrance Cable: Types SE and USE***

**SECTION 338.10**

*Subsection 338.10(A) – Revise second paragraph to read as follows:*

*Where installed as service entrance conductors, Type SE cable shall be enclosed in a threaded metallic raceway.*

*Subsection 338.10(B)(2) – Delete the Exception.*

*Subsection 338.10(B)(4)(b) – Revise to read as follows:*

*(b) Exterior Installations. In addition to the provisions of this article, service-entrance cable used for feeders or branch circuits, where installed as exterior wiring, shall be installed in a threaded raceway.*

**ARTICLE 340**

***Underground Feeder and Branch-Circuit Cable: Type UF***

**SECTION 340.10**

*Subsection 340.10(1) – Revise to read as follows:*

*(1) For use underground. For underground requirements, see 300.5.*

*Subsection 340.10(5) – Delete the subsection in its entirety.*

*Subsection 340.10(6) – Delete the subsection in its entirety.*

**SECTION 340.12**

*Subsection 340.12(12) – Add a new subsection 340.12(12) to read as follows:*

*(12) Direct burial.*

**ARTICLE 350**

***Liquidtight Flexible Metal Conduit: Type LFMC***

**SECTION 350.12**

*Subsection 350.12(3) – Add a new subsection 350.12(3) to read as follows:*

*(3) In lengths exceeding 1.83m (6 ft).*

**ARTICLE 352**

***Rigid Nonmetallic Conduit: Type RNC***

**SECTION 352.10**

*Subsection 352.10(I) – Add a new subsection 352.10(I) to read as follows:*

**(I)** *In any residential building or dwelling unit not exceeding three floors above grade.*

*Subsection 352.10(J) – Add a new subsection 352.10(J) and a FPN to read as follows:*

**(J)** *In any nonresidential building or residential building over 3 stories high, rigid nonmetallic conduit shall be concealed within non-plenum walls, floors and ceilings where the walls, floors and ceilings provide a thermal barrier of material that has at least a one hour rated assembly as identified in listings of fire-rated assemblies.*

#### **ARTICLE 354**

##### ***Nonmetallic Underground Conduit with Conductors: Type NUCC***

#### **SECTION 354.10**

*Section 354.10 – Revise the heading and the first sentence to read as follows:*

**354.10 Uses Permitted by Special Permission Only.** *The use of NUCC and fittings shall be permitted by special permission only, as follows:*

#### **ARTICLE 356**

##### ***Liquidtight Flexible Nonmetallic Conduit: Type LFNC***

#### **SECTION 356.10**

*Section 356.10 – Revise the heading and the first sentence to read as follows:*

**356.10 Uses Permitted by Special Permission Only.** *The use of LFNC shall be permitted by special permission only, as follows:*

#### **ARTICLE 358**

***Electrical Metallic Tubing: Type EMT***

***SECTION 358.10***

*Subsection 358.10(C) – Delete the subsection in its entirety.*

***SECTION 358.12***

*Subsection 358.12(7) – Add a new subsection 358.12(7) to read as follows:*

*(7) For underground or exterior installations or in wet locations.*

***ARTICLE 362***

***Electrical Nonmetallic Tubing: Type ENT***

***SECTION 362.10***

*Section 362.10 - Revise to read as follows:*

***362.10 Uses Permitted.*** *The use of electrical nonmetallic tubing and fittings shall be permitted:*

*(1) Concealed within walls, floors, and ceilings where the walls, floors, and ceilings provide a thermal barrier of material which has at least a 1 hour finish rating as identified in listings of fire-rated assemblies.*

*(2) In locations subject to severe corrosive influences as covered in Section 300.6 and where subject to chemicals for which the materials are specifically approved.*

*(3) In concealed, dry, and damp locations not prohibited by Section 362.12.*



*(4) Above suspended ceilings where the suspended ceilings provide a thermal barrier of material, which has at least a 1 hour finish rating as identified in listings of fire-rated assemblies.*

*(5) Embedded in poured concrete, provided fittings approved for this purpose are used for connections.*

*(6) For wet locations indoors or in a concrete slab on or below grade, with fittings listed and approved for the purpose.*

*FPN No.1: Extreme cold may cause some types of nonmetallic conduits to become brittle and, therefore, more susceptible to damage from physical contact.*

*FPN No. 2: Extreme cold may cause some types of nonmetallic tubing to become brittle and therefore more susceptible to damage from physical contact.*

**SECTION 362.12**

*Subsection 362.12(11) - Add a new subsection 362.12(11) to read as follows:*

*(11) In ducts, plenums and other air handling spaces.*

**SECTION 362.20**

*Subsection 362.20(B) - Change "53 (trade size 2)" to read "27 (trade size 1)".*

**SECTION 362.130**

*Section 362.130 - Add a new subheading IV and a new section 362.130 to read as follows:*

#### ***IV. Approval and Inspections***

***362.130 Approval Requirements.*** For each project, a letter testifying to the suitability and quantity to be installed shall be submitted for approval. Such approval is required prior to installation.

#### ***SECTION 362.140***

*Section 362.140 - Add a new section 362.140 to read as follows:*

***362.140 Inspection.*** Wiring to be concealed or imbedded in concrete shall be left exposed for inspection and may be enclosed only after a satisfactory inspection has been performed.

#### ***ARTICLE 366***

##### ***Auxiliary Gutters***

#### ***SECTION 366.10***

*Subsection 366.10(B) - Revise the first sentence to read as follows:*

*Nonmetallic auxiliary gutters may only be installed by special permission and shall be listed for the maximum ambient temperature of the installation and marked for the installed conductor insulation temperature rating.*

#### ***ARTICLE 368***

##### ***Busways***

#### ***SECTION 368.2***

*Section 368.2 - Change title from "Definition" to "Definitions" and add a new definition to read as follows:*

**Service Busway.** For the purpose of this article, service busway is busway used to connect from the service point to the line terminals of the service equipment.

**SECTION 368.119**

Section 368.119 - Add a new section 368.119, before 368.120, to read as follows:

**368.119 Service Busway.** Service busway shall conform to the specifications listed in (A) through (I) below.

**(A) Ampacity and Ratings of Bus Bars.** Ampacity and ratings of bus bars shall be in accordance with 230.42(A).

**(B) Length.** Service busway shall be limited to a maximum of 3.0 m (10 ft) in length.

*Exception: By special permission.*

**(C) Insulation.** Bus bars shall be insulated with a material listed for the purpose and rated for use at a minimum of 600 Volts.

**Exception: Bolted bus bar joints requiring maintenance shall be permitted to be uninsulated.**

**(D) Enclosure.** Enclosure shall be fabricated from aluminum, minimum 3.2 mm (1/8 in.) thick or other non-magnetic material acceptable to the Commissioner.

**(E) Enclosure Vents.** Ventilating openings shall be permitted in the sides and bottom of the enclosure. Top of enclosure must be solid.

*(F) Mounting. Bus bars shall be mounted on insulating supports, properly spaced and braced to withstand the maximum available short circuit current.*

*(G) Clearance. A minimum clearance of 102 mm (4 in.) shall be provided from the phase bars to the enclosure.*

*(H) Plating. All bus bar joints and connections shall be plated with silver, tin or nickel.*

*(I) Accessibility. All bus bar joints and connections shall be accessible.*

## **ARTICLE 370**

### **Cablebus**

#### **SECTION 370.3**

*Section 370.3 - Delete "and services" from the last sentence of the first paragraph, so that it reads as follows:*

*Cablebus shall be permitted to be used for branch circuits and feeders.*

## **ARTICLE 378**

### **Nonmetallic Wireways**

#### **SECTION 378.10**

*Section 378.10 - Revise the heading and first sentence of the section to read as follows:*

***378.10 Uses Permitted by Special Permission Only.** The use of nonmetallic wireways shall be permitted by special permission only as follows:*

**ARTICLE 380**

***Multioutlet Assembly***

**SECTION 380.2**

*Subsection 380.2(B)(7) - Add a new subsection 380.2(B)(7) to read as follows:*

*(7) Where cord and plug connected.*

**ARTICLE 382**

***Nonmetallic Extensions***

**SECTION 382 II**

*Section 382 II - After subheading "II. Installation" of the Article, add a sentence to read as follows and delete remainder of the Article:*

***II. Installation***

*Installation of non-metallic extensions shall not be permitted.*

**ARTICLE 388**

***Surface Nonmetallic Raceways***

**SECTION 388.12**

*Subsection 388.12(8) - Add a new subsection 388.12(8) to read as follows:*

*(8) In residential buildings exceeding three floors above grade.*

*Subsection 388.12(9) - Add a new subsection 388.12(9) to read as follows:*

*(9) In non-residential buildings.*

**ARTICLE 394**

***Concealed Knob-and-Tube Wiring***

**SECTION 394 II**

*Section 394 II - After subheading "II. Installation" of this Article, add a sentence to read as follows and delete the rest of the Article:*

***II. Installation***

*Installation of Concealed Knob-and-Tube Wiring shall not be permitted.*

**ARTICLE 404**

***Switches***

**SECTION 404.10**

*Subsection 404.10(A) – Delete the subsection in its entirety.*

**ARTICLE 406**

***Receptacles, Cord Connectors, and Attachment Plugs (Caps)***

**SECTION 406.4**

*Subsection 406.4(D) – Delete Exception No. 2.*

**ARTICLE 408**

***Switchboards and Panelboards***

### **SECTION 408.3**

*Subsection 408.3(C) – Add a new paragraph and exception to read as follows:*

*A bus link shall be provided for disconnecting the neutral service conductor(s) from the outgoing load neutral conductor(s). Such disconnect link shall be readily accessible and located downstream of the main bonding jumper and grounding electrode conductor terminal. In a multisection switchboard a single neutral disconnect link may be provided for all service disconnects.*

*Exception: A single cable lug accommodating a maximum of two cables may be used in lieu of a neutral disconnect link for service disconnects 800 amperes or less.*

*Subsection 408.3(G) - Add a new subsection 408.3(G) to read as follows:*

**(G) Dielectric Test.** *All service and distribution equipment, switchboards, control panels, and panelboards shall be given a 60 Hz AC dielectric test, phase to phase and phase to ground, at twice rated voltage plus 1,000 volts for one minute (minimum 1500 volts) prior to shipment from factory. A dielectric test voltage which is 20% higher than that in the one minute test may be applied for one second as an alternative to the one minute test. The date of the test and the name and title of the individual certifying the test shall be clearly shown on a label affixed to the equipment.*

*Subsection 408.3(H) - Add a new subsection 408.3(H) to read as follows:*

**(H) Warning Label.** *All 480/277 volt switchboards, panelboards and panelboard back boxes shall have a visible label, clearly marked “WARNING 480/277 VOLTS” and in compliance with ANSI standard Z535.4.*

**SECTION 408.4**

*Section 408.4 – At the end of the section add the following sentence:*

*The required identification shall be in English.*

**SECTION 408.23**

*Section 408.23 - Add a new section 408.23 to read as follows:*

**408.23 Grounding Switchboard Frames.** *Switchboard frames and structures supporting switching equipment shall be grounded. A multisection switchboard shall be provided with an internal ground bus, which will electrically connect all of the sections of the switchboard. This ground bus shall have a minimum cross section of 1/2 square inch of copper or 3/4 square inch of aluminum. The contact surfaces of the equipment ground connections shall provide an effective electrical ground path for fault currents.*

*Exception: Frames of direct current, single-polarity switchboards shall not be required to be grounded if effectively insulated.*

**SECTION 408.51**

*Section 408.51 - Revise to read as follows:*

**408.51 Busbars.**

**(A) General.**

*(1) Insulated or bare busbars shall be rigidly mounted.*

*(2) Busbars shall be sized based on 1000 amperes per square inch for copper and 750 amperes per square inch for aluminum.*



*Exception: In service switchboards, generator paralleling switchboards and when connecting to devices rated over 2500 amperes. See 408.51(B) and (C) below.*

**(B) In Service Switchboards and Generator Paralleling Switchboards.** *Line-side busbars in service switchboards and all busbars in generator paralleling switchboards shall be considered service conductors and shall comply with the requirements of Section 230.42(A).*

**(C) Connection to Devices Rated over 2500 Amperes.** *Busbars shall be sized in accordance with (1) and (2) below when connected to a device (switch or circuit breaker) over 2500 amperes:*

*(1) Over 2500 amperes but less than 5000 amperes, busbars shall be sized based on 800 amperes per square inch for copper and 600 amperes per square inch for aluminum.*

*(2) 5000 amperes and over, busbars shall be sized based on 700 amperes per square inch for copper and 525 amperes per square inch for aluminum.*

*Exception: Beyond a minimum distance of 1.2m (4 ft) along the current path from the device, the busbar may be reduced in size, in accordance with 408.51(A)(2) above.*

**(D) Ampacity of Through (Main) Bus.** *The through (main) bus that feeds four or more overcurrent protective devices of a switchboard shall have a minimum ampacity of 70% of the sum of the frame ratings of all devices fed by that through bus. If provisions are made for the addition of overcurrent protective devices in the future, the expected overcurrent protective device ratings shall be included in the above calculations. The through bus ampacity shall not be required to be greater than the frame rating of the upstream overcurrent protective device.*

*Exception: In service switchboards and for devices rated over 2500 amperes refer to section 408.51(B) and (C) above.*

**(E) Ampacity of Section Bus.** *The section bus is that portion of the bus that serves one or more overcurrent protective devices in the switchboard section and comprises that part of the bus between the through bus and the branch distribution bus. The minimum ampacity of the section bus of a switchboard shall be determined by the table below. The section bus ampacity shall not be required to be greater than that of the through bus.*

*Total Number of Branch Minimum Ampacity of Section Bus as a % of the  
Overcurrent Devices Sum Total of Branch Overcurrent Devices \**

<i>1-2</i>	<i>100</i>
<i>3-4</i>	<i>80</i>
<i>Over 4</i>	<i>70</i>

*\* For fusible switches, the maximum fuse size shall be used. For interchangeable trip circuit breakers, the maximum trip rating shall be used. If provisions are made for the future installation of branch overcurrent protective devices, the ampacity of these units shall be included in the calculation.*

*Exception: In service switchboards and for devices rated over 2500 amperes refer to section 408.51(B) and (C) above.*

**(F) Busbar Joints.** *All busbar joints and connections shall be plated with silver, tin or nickel. The current density at contact surfaces in busbar joints shall not exceed 200 amperes per square inch for copper and 150 amperes per square inch for aluminum. A*

*permanent label providing torque values or tightening instructions for all busbar joints shall be affixed to each section of a switchboard.*

**SECTION 408.54** - *Add a new section 408.54 to read as follows:*

**408.54 Hinged Doors.** *Freestanding switchboards, which have rear access, shall have hinged rear doors fastened by captive screws or suitable latches.*

**SECTION 408.57** - *Add a new section 408.57 to read as follows:*

**408.57 Service and Distribution Equipment Rated Over 150 Volts to Ground.**

**(A) Common Supply.** *Conductors supplying two or more service disconnecting means shall be separated from the load terminals of the service disconnecting means by listed and approved non-hygroscopic, arc resistant barriers having a snug fit around the conductors. Service switchboards shall be supplied from one point of service entrance only.*

**(B) Barriers.** *Listed and approved barriers shall be placed between adjacent sections of the switchboard. Listed and approved barriers shall be placed between the switchboard and its pullbox, whether located at the top or bottom of the equipment. All openings in the barriers for bus bars shall be closed with snug fitting, listed and approved non-hygroscopic, arc resistant material.*

## **ARTICLE 409**

### **Industrial Control Panels**

#### **SECTION 409.3**

*Table 409.3 - Add the following items to the Table:*

*"Services 230" and "Switchboards and Panelboards 408"*

**SECTION 409. 102**

*Section 409.102 - At the end of the paragraph, add the following:*

*When the equipment is utilized as service equipment, the busbars shall comply with Section 408.51.*

**SECTION 409. 108**

*Section 409.108 - At the end of the first paragraph, add the following:*

*When the equipment is utilized as service equipment, a means for disconnecting the neutral service conductor(s) complying with Section 408.3(C) is required.*

**ARTICLE 410**

***Luminaires (Lighting Fixtures), Lampholders, and Lamps***

**SECTION 410.4**

*Subsection 410.4(D) - Add a second paragraph to read as follows:*

*Wall mounted luminaires shall not be installed below 2.5m (8 ft) within or directly over a bathtub or shower stall unless otherwise approved by special permission. This measurement is from the top of the bathtub rim or shower stall threshold.*

*Subsection 410.4(E) - At the end of the first sentence, add the following:*

*"or be equipped with a safety lamp."*

**SECTION 410.16**

*Subsection 410.16(C) - Add two new sub-subsections 410.16(C)(1) and 410.16(C)(2) to read as follows:*

*(1) A recessed fluorescent luminaire (fixture) weighing more than fifty pounds shall not be installed directly on a concealed or exposed ceiling spline of a lightweight, mechanical acoustical ceiling system. Such fixtures shall be supported from the channel iron or the building structure.*

*(2) A surface or pendant type luminaire (fixture), regardless of its weight, shall not be mounted directly on the concealed or exposed ceiling spline of a lightweight mechanical acoustical ceiling system. Such luminaires (fixtures) shall be supported from the channel iron or the building structure.*

*Subsection 410.16(I) - Add a new subsection 410.16(I) to read as follows:*

***(I) Large Luminaires (Fixtures).*** *Large luminaires (fixtures), which are designed to be raised and lowered by means of a mechanical winch shall be designed so that they can be securely held in their permanent positions by means of a cable or other holding device that is entirely separate from the lowering cable. Where not in permanent positions, such systems shall be made mechanically failsafe to prevent them from falling.*

**SECTION 410.29**

*Section 410.29 - Revise to read as follows:*

***410.29 Showcases.*** *Show and wall cases shall be installed, wired and connected in a*

*permanent manner. The use of exposed flexible cord or fixture wire shall not be permitted. Auxiliaries and other control equipment, where not a part of the luminaire (fixture) assembly, shall be enclosed in a separate metal cabinet, which is suitably ventilated to ensure proper dissipation of heat, and installed in a permanent and accessible manner. For temporary display units, refer to Article 590.*

#### **SECTION 410.30**

*Subsection 410.30(C) - Add a new paragraph (4) to read as follows:*

*(4) Where screw shell type lampholders are used for electric discharge lamps, the luminaires (fixtures) shall be installed not less than 2.5 meters (8 ft) from the floor to the underside of the lamp or lampholder.*

#### **SECTION 410.36**

*Section 410.36 - Revise to read as follows:*

**410.36 Design and Material.** *Luminaires (fixtures) shall be constructed of metal or of other such material as may be approved for the purpose and shall be so designed and assembled as to secure requisite mechanical strength and rigidity. Wiring compartments, including their entrances, shall be such that conductors may be drawn in and withdrawn without physical damage. Seams and joints of metal enclosures shall be welded, brazed, riveted, bolted or fastened with machine screws to provide ample strength and rigidity.*

#### **SECTION 410.40**

*Section 410.40 - Add a new section 410.40 to read as follows:*

##### **410.40 Metallic Luminaires (Fixtures).**

**(A) Enclosures.** *Luminaire (fixture) enclosures shall be fabricated of sheet steel not less*

*than 20 U.S.S.G. Enclosures may be constructed of metals other than sheet steel, provided they are equivalent in mechanical strength and approved for the purpose.*

**(B) Lampholder.** *Lampholder saddle assemblies shall be constructed of not less than No. 20 gauge sheet steel or metals of equivalent strength.*

**(C) Ballast Covers.** *Ballast covers without attachment shall be constructed of not less than 22 U.S.S.G. sheet steel or metals of equivalent strength. Where ballasts are attached directly to reflectors or covers, those reflectors or covers shall be constructed of 20 gauge sheet steel or metals of equivalent strength.*

*Reflectors or enclosures that are relied upon for component support, raceway covers, or for protection of wiring, shall be made of metal.*

## **ARTICLE 422**

### **Appliances**

#### **SECTION 422.12**

*Section 422.12 - Revise to read as follows:*

**422.12 Central Heating Equipment.** *Central heating equipment other than fixed electric space-heating equipment shall be supplied by an individual branch circuit.*

*Exception No. 1: Auxiliary equipment, such as a pump, valve, humidifier, or electrostatic air cleaner directly associated with the heating equipment, shall be permitted to be connected to the same branch circuit.*

*Exception No. 2: Permanently connected air-conditioning equipment shall be permitted to be connected to the same branch circuit.*

**(A) Definition.**

**Low Pressure Boiler.** Any steam boiler operating at fifteen (15 lbs.) pound gauge pressure or less, or any boiler rated at 10 horsepower or less, regardless of pressure.

**(B) Controls on Low Pressure Boilers.** An electrical pressure switch with normally closed contacts shall be connected to the steam drum of every boiler ahead of all valves. The pressure switch shall be set to open at safe working pressure of the boiler. This boiler electrical high-pressure cut-off switch shall be designed to reclose only by a reset device, which shall be manually controlled. One and two family residences are exempt from these provisions.

**(C) Circuit Voltage and Safety Devices Connections.** Conductors of the control circuits shall only be connected to circuits not exceeding 150 volts to ground, or not more than 150 volts between conductors.

All safety devices, such as pressure controls, fire controls, relays, etc. shall have their electric switching mechanism connected to the ungrounded conductor.

**SECTION 422.16**

Subsection 422.16(B)(4) - Revise to read as follows:

**(4) Combination Range Hood / Microwave Ovens.** Combination range hood/microwave ovens shall be permitted to be cord-and-plug connected with a flexible cord identified as suitable for use on combination range hood/microwave ovens in the installation instructions of the appliance manufacturer, where all of the following conditions are met:



(1) *The flexible cord is terminated with a grounding-type attachment plug.*

***Exception: A listed combination range hood/microwave ovens distinctly marked to identify it as protected by a system of double insulation, or its equivalent, shall not be required to be terminated with a grounding-type attachment plug.***

(2) *The length of the cord is not less than 450 mm (18 in.) and not over 900 mm (36 in.).*

(3) *Receptacles are located to avoid physical damage to the flexible cord.*

(4) *The receptacle is accessible.*

(5) *The receptacle is supplied by an individual branch circuit.*

## ***ARTICLE 430***

### ***Motors, Motor Circuits, and Controllers***

#### ***SECTION 430.5***

*Table 430.5 - Add the following items to the Table:*

*"Services 230" and "Switchboards and Panelboards 408"*

#### ***SECTION 430.95***

*Section 430.95 – At the end of the first paragraph add the following:*

*When the equipment is utilized as service equipment, a means for disconnecting the neutral service conductor(s) complying with Section 408.3(C) is required.*

#### ***SECTION 430.97***

*Section 430.97 - After the title, add a new sentence to read as follows:*

*When the equipment is utilized as service equipment, the bus bars shall comply with Article 408, Section 408.51.*

**ARTICLE 440**

***Air-Conditioning and Refrigerating Equipment***

**SECTION 440.62**

*Subsection 440.62(C) - Delete the subsection in its entirety.*

**ARTICLE 450**

***Transformers and Transformer Vaults (Including Secondary Ties)***

**SECTION 450.1**

*Section 450.1 - Delete Exception No. 7.*

**SECTION 450.9**

*Section 450.9 - Revise the first paragraph to read as follows:*

*Mechanical ventilation and/or air conditioning shall be provided and shall be adequate to dispose of the transformer full-load losses without exceeding 40°C (104°F) ambient temperature in the room.*

**SECTION 450.25**

*Section 450.25 - Delete the section in its entirety.*

**SECTION 450.42**

*Section 450.42 - Revise to read as follows:*

**450.42 Walls, Roofs and Floors.** *The vault shall be of such dimension as to permit the installation of all electrical equipment in accordance with Section 110.26 or 110.34 as applicable. The vault shall be of fireproof construction with a minimum fire resistance rating of three hours with floors, walls and ceilings 152 mm (6 in.) thick if made of concrete, or 203 mm (8 in.) thick if made of brick, or 203 mm (8 in.) thick if made of filled cement block. All building steel forming part of the vault construction shall have a comparable fire resistance rating. Each compartment within a vault shall be built to the same specifications in respect to the thickness of walls and fireproof door, as the vault. The floors shall be of ample strength to carry the weight of the equipment to be installed in the vault. The floors and wall, to the height of the sill, shall be given a hard impervious finish and painted to prevent the absorption of oil.*

*Exception: Where transformers are protected with automatic sprinkler, carbon dioxide, or gas suppression system, construction of 1-hour rating shall be permitted.*

### **SECTION 450.43**

*Subsection 450.43(A) - Delete the fine print note, and revise the subsection and the exception to read as follows:*

**(A) Type of Door.** *Each doorway leading into a vault from the building interior shall be provided with a tight-fitting door that has a minimum fire rating of 3 hours. Where practicable, basement vaults or vaults opening up on a roof shall be provided with an outside entrance so that no entrance directly into the vault from the interior of the building will be necessary. Where entrance into the vault is from the interior of the building, the vault shall open upon a vestibule, passage hall or switchboard room not commonly in public use.*

*Exception: Where transformers are protected with automatic sprinkler, carbon dioxide,*

*or gas suppression system, construction of 1-hour rating shall be permitted.*

**SECTION 450.45**

*Section 450.45 - Revise the first paragraph to read as follows:*

*A system of ventilation shall be provided to dispose of transformer full load losses and maintain a vault ambient temperature not to exceed 40°C (104°F). Minimum criteria for ventilation shall be in accordance with (A) through (F) below:*

*Subsection 450.45(C) - Add a new exception to read as follows:*

*Exception: Where required to meet the temperature conditions of section 450.45, the minimum of three square inches per kVA of natural ventilation may be supplemented by a dedicated mechanical ventilation system.*

**SECTION 450.46**

*Section 450.46 - Revise section to read as follows:*

**450.46 Drainage.** *Where practicable, vaults containing more than 100 kVA transformer capacity shall be provided with a drain or other means that will carry off any accumulation of oil or water in the vault unless local conditions make this impracticable. The floor shall be pitched to the drain where provided. Drainage shall be permitted to carry off water accumulation. Such drainage shall prevent drainage of transformer coolant into the water drainage system and shall be provided in accordance with the New York City Building Code and other authorities having applicable regulations.*

**ARTICLE 501**

***Class I Locations***

***SECTION 501.10***

*Subsection 501.10(B)(2) - Delete item (4) "Liquidtight flexible nonmetallic conduit with listed fittings".*

***ARTICLE 502***

***Class I Locations***

***SECTION 502.10***

*Subsection 502.10(A)(2) – Delete item (3) “Liquidtight flexible nonmetallic conduit with listed fittings”.*

***ARTICLE 503***

***Class III Locations***

***SECTION 503.10***

*Subsection 503.10(A) – Delete reference to “rigid nonmetallic conduit”.*

*Subsection 503.10(A)(2) – Delete reference to “liquidtight flexible nonmetallic conduit with listed fittings”.*

***ARTICLE 505***

***Class I, Zone 0, 1, and 2 Locations***

***SECTION 505.15***

*Subsection 505.15(C)(2) – Delete reference to “liquidtight flexible nonmetallic conduit with listed fittings”.*

**ARTICLE 506**

***Zone 20, 21, and 22 Locations for Combustible Dusts, Fibers, and Flyings***

**SECTION 506.15**

*Subsection 506.15(A)(5) – Delete “liquidtight flexible nonmetallic conduit with listed fittings”.*

**ARTICLE 511**

***Commercial Garages, Repair and Storage***

**SECTION 511.7**

*Subsection 511.7(A)(1) – Delete “rigid nonmetallic conduit, electrical nonmetallic tubing” and “liquidtight flexible nonmetallic conduit”.*

**ARTICLE 516**

***Spray Application, Dipping and Coating Processes***

**SECTION 516.3**

*Subsection 516.3(C)(2)(a) - Revise to read as follows:*

*(a) The exhaust ventilation system shall be interlocked with the spray application equipment, the Division 2 or Zone 2 location shall extend 1.5 m (5 ft) horizontally and 900 mm (3 ft) vertically from the open face or open front of the booth or room, as shown in figure 516.3(B)(2), top.*

*Subsection 516.3(C)(2)(b) - Delete the subsection in its entirety.*

**ARTICLE 517**

***Health Care Facilities***

**SECTION 517.30**

*Subsection 517.30(B)(4) - At the end of the paragraph, add the following:*

*A separate automatic transfer switch shall be required for:*

- (1) The fire pump. For fire pump requirements refer to Article 695 - Fire Pumps.*
- (2) Alarm and alerting systems.*
- (3) Automatic smoke control or venting.*
- (4) Stair pressurization systems.*

*Note: There may be alternative ways to accomplish the above.*

*At FPN Figures 517.30, No.1 and 517.30, No.2, add the following:*

*This figure does not reflect the switches and automatic transfer switches required above.*

**SECTION 517.41**

*Subsection 517.41(B) - At the end of the paragraph, add the following:*

*A separate automatic transfer switch shall be required for:*

- (1) The fire pump. For fire pump requirements refer to Article 695- Fire Pumps.*
- (2) Alarm and alerting systems.*
- (3) Automatic smoke control or venting.*
- (4) Stair pressurization systems.*

*Note: There may be alternative ways to accomplish the above.*

*At FPN Figures 517.41, No.1 and 517.41, No.2, add the following:*

*This figure does not reflect the switches and automatic transfer switches required above.*

**ARTICLE 518**

**Assembly Occupancies**

**SECTION 518.1**

*Section 518.1 - Replace the first sentence with the following:*

*This article covers all buildings or portions of buildings or structures classified as Assembly Occupancies in the New York City Building Code.*

**SECTION 518.2**

*Subsection 518.2(A) - Revise to read as follows:*

*(A) **General.** Assembly Occupancies shall be classified as places of assembly under guidelines set by the New York Fire Prevention Code (Title 27, Chapter 4 of the Administrative Code of the City of New York) and Title 27, Chapter 1, Subchapter 3, Table 3-2 of Article 4 and Article 8 of the New York City Building Code.*

*Subsection 518.2(B) - Revise to read as follows:*

*(B) **Multiple Occupancies.** Subject to Title 27, Chapter 1, Subchapter 3, Article 2 of the New York City Building Code.*

**SECTION 518.4**

*Subsection 518.4 (B) - Delete the subsection in its entirety.*



*Subsection 518.4(C) - Delete the subsection in its entirety.*

**ARTICLE 520**

***Theaters, Audience Areas of Motion Picture and Television Studios, Performance Areas and Similar Locations***

**SECTION 520.5**

*Subsection 520.5(C) – Delete the subsection in its entirety.*

**SECTION 520.6**

*Section 520.6 – Delete reference to “rigid nonmetallic conduit” from the first sentence.*

**ARTICLE 525**

***Carnivals, Circuses, Fairs and Similar Events***

**SECTION 525.20**

*Subsection 525.20(G) – In the first sentence, delete “permitted to be” and add “secured” in front of “nonconductive matting”.*

**ARTICLE 545**

***Manufactured Buildings***

**SECTION 545.4**

*Subsection 545.4(A) – Revise to read as follows:*

***(A) Methods Permitted.*** *The wiring shall be installed in accordance with the requirements of Chapter 3.*

**SECTION 545.6**

*Section 545.6 - Delete the Exception.*

**SECTION 545.10**

*Section 545.10 - Delete the section in its entirety.*

**ARTICLE 590**

***Temporary Installations***

**SECTION 590.4**

*Subsection 590.4(J) - Add the following at the beginning of the subsection:*

*Temporary wiring shall be properly and substantially supported on noncombustible, nonabsorbitive insulators and shall be kept off the floor and free and clear of contact with woodwork, metal pipes and metal portions of the building structure.*

*Subsection 590.4(K) - Add a new subsection 590.4(K) to read as follows:*

***(K) Permanent Feeders and Branch Circuits used for Temporary Light and Power.***

*Permanent feeders may be used for temporary light, heat or power service if run in approved raceways or conduits from the source of supply directly to the distribution center. Temporary polarized lampholders may be connected to permanent branch circuit wiring pending the erection of the permanent fixtures.*

*Subsection 590.4(L) - Add a new subsection 590.4(L) to read as follows:*

***(L) Grounding.*** *All portable machines shall be grounded. All grounding shall conform*

with Article 250.

**SECTION 590.6**

*Section 590.6 - Add an Exception after the first paragraph, to read as follows:*

*Exception: Temporary wiring installations that are accessible to the public and used to supply temporary power for illumination of outdoor areas during construction, remodeling, maintenance, repair, or demolition of buildings, structures, equipment, or similar activities shall comply with all other requirements of this Code for permanent wiring and shall be provided with ground-fault protection for personnel.*

**ARTICLE 600**

***Electric Signs and Outline Lighting***

**SECTION 600.3**

*Section 600.3 - Add the following subsections:*

***(C) Inspection.*** *Electric signs manufactured for installation in the city shall be inspected by the Commissioner of Buildings before installation. Such inspection may either be at the factory before final assembly, or at the place of installation, before being installed, at the option of the Commissioner, and no such sign shall be erected unless approved.*

***(D) Relocated Signs.*** *The moving of an approved sign from one location to another may be permitted without inspection provided no alterations in or additions to the existing sign are made, and the application to connect at the new location shows the previous location, lettering, and the connected electrical load of the sign.*

**(E) Plastic Materials.** *All plastic materials to be used in the manufacture of electric signs shall be submitted for approval.*

**(F) Markings.** *Each individual plastic section or letter shall be permanently marked with the material manufacturer's name, trademark, or other identification symbol.*

**(G) Receptacles.** *Only receptacles for sign maintenance shall be permitted to be installed in or on sign enclosures.*

#### **SECTION 600.7**

*Subsection 600.7(D) - Change "14 AWG" to "12 AWG".*

#### **SECTION 600.8**

*Subsection 600.8(C) - Revise to read as follows:*

**(C) Minimum Thickness of Enclosure Metal.** *Sheet steel shall be at least 0.635mm (0.0250 in. - 24 U.S.S.G.) thick. Sheet copper or aluminum shall be of equivalent strength.*

### **ARTICLE 604**

#### **Manufactured Wiring Systems**

#### **SECTION 604.1**

*Subsection 604.1(A) - Add new subsection 604.1(A) to read as follows:*

**(A) General.** *All such wiring systems shall be approved, installed by an electrician licensed in New York City, and comply with the installation standards listed below. In addition to the regular installation instructions supplied for Manufactured Wiring*

*Systems, manufacturers are required to also include this supplement:*

*(1) Along with the application for certificate of electrical inspection for each installation or any subsequent modification thereof, the licensed electrical contractor shall include a diagram or specification sheet clearly defining the boundaries where the wiring method will be installed.*

*(2) All branch circuit wiring shall be 12AWG, minimum.*

*(3) All branch circuits are limited to a maximum number of ten outlets per circuit.*

*(4) Manufactured wiring systems shall not be used for emergency exit signs or emergency lighting.*

*(5) Such wiring shall only be used for general lighting circuits above the hung ceiling line.*

*(6) All points of connection shall be accessible.*

*(7) No outlet shall have any unused utilization attachment point.*

*(8) Shall be properly supported in accordance with the New York City Electrical Code.*

#### **SECTION 604.6**

*Subsection 604.6(A)(2) - Revise to read as follows:*

*(2) **Conduits.** Conduits shall be listed flexible metal conduit containing nominal 600 volt, 8 AWG or 12 AWG copper-insulated conductors with a bare or insulated copper equipment grounding conductor equivalent in size to the ungrounded conductor.*

#### **ARTICLE 605**

***Office Furnishings (Consisting of Lighting Accessories and Wired Partitions).***

#### **SECTION 605.4**

*Section 605.4 - Revise to read as follows:*

**605.4 Partition Interconnections.** *The electrical connection between partitions shall be flexible assemblies listed and approved for use with wired partitions or metallic raceways that do not exceed 610mm (2 ft) in length.*

**SECTION 605.6**

*Section 605.6 - Revise to read as follows:*

**605.6 Fixed and Free Standing-Type Partitions.** *Wired partitions that are fixed (secured to building surfaces) shall be permanently connected to the building electrical system by one of the wiring methods of Chapter 3. Where liquidtight flexible metal conduit is used, the maximum length shall be 457mm (18 in.).*

**SECTION 605.7**

*Section 605.7 - Delete the section in its entirety.*

**SECTION 605.8**

*Section 605.8 - Delete the section in its entirety.*

**ARTICLE 620**

***Elevators, Dumbwaiters, Escalators, Moving Walks, Wheelchair Lifts and Stairway Chair Lifts***

**SECTION 620.3**

*Subsection 620.3(A) – Revise the first sentence to read as follows:*

*Branch circuits and feeders to motor controllers, driving machine motors, machine brakes, and motor-generator sets shall not have a circuit voltage in excess of 600 volts.*

**SECTION 620.12**

*Subsection 620.12(B) - Revise to read as follows:*

**(B) Other Wiring.** *All signaling and operating control circuits shall be minimum 24 AWG copper.*

**SECTION 620.21**

*Section 620.21 - Delete all references to “rigid nonmetallic conduit” and “liquidtight flexible nonmetallic conduit.”*

**SECTION 620.24**

*Subsection 620.24(A) – Revise the second sentence to read as follows:*

*Required lighting or sump pump shall not be connected to the load side of a ground-fault circuit interrupter.*

**SECTION 620.51**

*Subsection 620.51(A) – Revise to read as follows:*

**(A) Type.** *The disconnecting means shall be an enclosed externally operable motor circuit switch or circuit breaker capable of being locked in the open position. The disconnecting means shall be a listed device.*

*FPN No.1: Unfused disconnecting means are permitted where other overcurrent protective devices are provided to properly protect the elevator.*

*FPN No.2: For additional information, see RS 18 of the New York City Building Code and the Safety Code for Elevators and Escalators, ASME/ANSI A17.1- 2000.*

*Subsection 620.51(B) – Add a second sentence to the FPN to read as follows:*

*See section 6.15.4 of the NFPA 72-2002, National Fire Alarm Code.*

***SECTION 620.61***

*Section 620.61 - Add a second sentence to read as follows:*

*For multiple elevators connected to the same feeder, each elevator circuit must be properly protected.*

***ARTICLE 640***

***Audio Signal Processing, Amplification and Reproduction Equipment***

***SECTION 640.3***

*Subsection 640.3(J) - Delete the subsection in its entirety.*

***ARTICLE 645***

***Information Technology Equipment***

***SECTION 645.5***

*Subsection 645.5(D)(5) – Delete reference to “Types NPLF and FPL (Article 760)”.*

***ARTICLE 668***

***Electrolytic Cells***

***SECTION 668.1***

*Section 668.1 – Add a new paragraph at the end of the section to read as follows:*



*No new electrolytic cell line shall be installed, nor any existing cell line modified without special permission.*

**ARTICLE 680**

***Swimming Pools, Fountains and Similar Installations***

**SECTION 680.4**

*Section 680.4 – At the end of the paragraph add the following:*

*All provisions applicable in any other article of the New York City Building Code shall apply.*

**SECTION 680.9**

*Subsection 680.9 – At the end of the paragraph add the following:*

*All such circuits shall be provided with GFPE. Electric water heaters of the immersion or submersible type shall not be permitted.*

**SECTION 680.21**

*Subsection 680.21(A)(3) – Revise by deleting all references to “nonmetallic conduit.”*

**SECTION 680.23**

*Subsection 680.23(A)(2) – Add a new sentence at the end of the subsection to read as follows:*

*The output voltage of the secondary windings shall not exceed 24 volts.*

*Subsection 680.23(A)(4) – Revise by replacing “150 volts” with “15 volts.”*

*Subsection 680.23(B)(1) – Revise the first sentence to read as follows:*

*Listed and approved forming shells shall be installed for the mounting of all wet-niche underwater luminaires (fixtures) and shall be equipped with provisions for conduit entries.*

*Subsection 680.23(B)(2) – Revise by deleting all reference to “liquidtight flexible nonmetallic.”*

*Subsection 680.23 (B)(2)(b) – Revise the first sentence to read as follows:*

*Where a rigid nonmetallic conduit is used, an 8 AWG insulated solid or stranded copper equipment grounding conductor shall be installed in this conduit unless a listed low-voltage lighting system not requiring grounding is used.*

*Subsection 680.23(D) – Revise to read as follows:*

**(D) No-Niche Luminaires (Fixtures).** *A no-niche lighting fixture shall be supplied from a transformer meeting the requirements of section 680.23(A)(2) and shall:*

- (1) Have no exposed metal parts*
- (2) Operate at 15 volts or less*
- (3) Have an impact resistant polymeric lens and body, and*
- (4) Be listed and approved for the purpose*

*Subsection 680.23(F)(1) – Revise to read as follows:*

**(1) Wiring Methods.** *Branch-circuit wiring on the supply side of enclosures and junction*

*boxes connected to conduits run to wet-niche and no-niche luminaires (fixtures), and the field wiring compartments of dry-niche luminaires (fixtures), shall be installed using listed and approved rigid metal conduit, intermediate metal conduit, or rigid nonmetallic conduit.*

*Exception: Electrical metallic tubing shall be permitted to be used to protect conductors, when installed within buildings.*

### **SECTION 680.26**

*Section 680.26 - Delete the entire section and replace with the NEC 2002 version, to read as follows:*

#### **680.26 Bonding.**

*(A) Performance. The bonding required by this section shall be installed to eliminate voltage gradients in the pool area as prescribed.*

*FPN: This section does not require that the 8 AWG or larger solid copper bonding conductor be extended or attached to any remote panelboard, service equipment, or any electrode.*

*(B) Bonded Parts. The parts specified in 680.26(B)(1) through (B)(5) shall be bonded together.*

*(1) Metallic Structural Components. All metallic parts of the pool structure, including the reinforcing metal of the pool shell, coping stones, and deck, shall be bonded. The usual steel tie wires shall be considered suitable for bonding the reinforcing steel together, and welding or special clamping shall not be required. These tie wires shall be*

*made tight. If reinforcing steel is effectively insulated by an encapsulating nonconductive compound at the time of manufacture and installation, it shall not be required to be bonded. Where reinforcing steel is encapsulated with a nonconductive compound, provisions shall be made for an alternate means to eliminate voltage gradients that would otherwise be provided by unencapsulated, bonded reinforcing steel.*

**(2) Underwater Lighting.** *All forming shells and mounting brackets of no-niche luminaires (fixtures) shall be bonded unless a listed low-voltage lighting system with nonmetallic forming shells not requiring bonding is used.*

**(3) Metal Fittings.** *All metal fittings within or attached to the pool structure shall be bonded. Isolated parts that are not over 100 mm (4 in.) in any dimension and do not penetrate into the pool structure more than 25 mm (1 in.) shall not require bonding.*

**(4) Electrical Equipment.** *Metal parts of electrical equipment associated with the pool water circulating system, including pump motors and metal parts of equipment associated with pool covers, including electric motors, shall be bonded. Metal parts of listed equipment incorporating an approved system of double insulation and providing a means for grounding internal non-accessible, non-current-carrying metal parts shall not be bonded. Where a double-insulated water-pump motor is installed under the provisions of this rule, a solid 8 AWG copper conductor that is of sufficient length to make a bonding connection to a replacement motor shall be extended from the bonding grid to an accessible point in the motor vicinity. Where there is no connection between the swimming pool bonding grid and the equipment grounding system for the premises, this bonding conductor shall be connected to the equipment grounding conductor of the motor circuit.*

**(5) Metal Wiring Methods and Equipment.** *Metal-sheathed cables and raceways, metal piping, and all fixed metal parts except those separated from the pool by a permanent barrier shall be bonded that are within the following distances of the pool:*

*(1) Within 1.5 m (5 ft) horizontally of the inside walls of the pool.*

*(2) Within 3.7 m (12 ft) measured vertically above the maximum water level of the pool, or any observation stands, towers, or platforms, or any diving structure.*

**(C) Common Bonding Grid.** *The parts specified in 680.26(B) shall be connected to a common bonding grid with a solid copper conductor, insulated, covered, or bare, not smaller than 8 AWG. Connection shall be made by exothermic welding or by pressure connectors or clamps that are labeled as being suitable for the purpose and are of stainless steel, brass, copper, or copper alloy. The common bonding grid shall be permitted to be any of the following:*

*(1) The structural reinforcing steel of a concrete pool where the reinforcing rods are bonded together by the usual steel tie wires or the equivalent.*

*(2) The wall of a bolted or welded metal pool.*

*(3) A solid copper conductor, insulated, covered, or bare, not smaller than 8 AWG.*

*(4) Rigid metal conduit or intermediate metal conduit of brass or other identified corrosion-resistant metal conduit.*

**(D) Connections.** *Where structural reinforcing steel or the walls of bolted or welded metal pool structures are used as a common bonding grid for non-electrical parts, the connections shall be made in accordance with 250.8.*

**(E) Pool Water Heaters.** *For pool water heaters rated at more than 50 amperes that have specific instructions regarding bonding and grounding, only those parts designated to be bonded shall be bonded, and only those parts designated to be grounded shall be grounded.*

### **SECTION 680.33**

*Section 680.33 – Revise to read as follows:*

**680.33 Storable Pool Luminaires (Lighting Fixtures).** *Luminaires (lighting fixtures) for storable pools shall not be permitted.*

### **SECTION 680.41**

*Section 680.41 – Revise section by deleting the last sentence.*

### **SECTION 680.42**

*Subsection 680.42(A)(1) – Revise subsection by deleting all references to “liquidtight flexible nonmetallic conduit.”*

### **SECTION 680.51**

*Subsection 680.51(B) – Revise subsection to read as follows:*

**(B) Operating Voltage.** *All luminaires (lighting fixtures) shall be installed for operation at 15 volts or less between conductors. Pumps and other equipment shall operate at 300 volts or less between conductors.*

**ARTICLE 682**

***Natural and Artificially Made Bodies of Water***

**SECTION 682.1**

*Section 682.1 – Add “and water parks” at the end of the section.*

**SECTION 682.2**

*Section 682.2 – Add “and water parks” at the end of the first sentence of the first definition.*

**ARTICLE 690**

***Solar Photovoltaic Systems***

**SECTION 690.1**

*Section 690.1 – At the end of the section add the following:*

*Solar Photovoltaic Systems shall be tested as a complete assembly by a nationally recognized laboratory. These systems shall be listed or labeled after completion of testing.*

**ARTICLE 695**

***Fire Pumps***

**SECTION 695.1**

*Subsection 695.1(A)(3) - Add a new subsection 695.1(A)(3) to read as follows:*

~~(3)(2)~~ *Modification of existing fire pump power supply.*

**SECTION 695.2**

*Section 695.2 - After the first definition, Fault Tolerant External Control Circuits, add three new definitions to read as follows:*

**Fire Pump.** *For the purposes of this section, a fire pump is any Manual Standpipe Fire Pump, Automatic Standpipe Fire Pump, Sprinkler Booster Pump, Special Service Fire Pump, Spray Mist Fire Pump or Foam Fire Pump located at or below street level or with a motor rating exceeding 30hp.*

**Sprinkler booster pump.** *For the purposes of this section, a Sprinkler Booster Pump is a fire pump installed in J-2 occupancies, where a minimum of 5 psig is maintained at the highest line of sprinklers, that complies with the definition of Limited Service Fire Pump.*

**Limited Service Fire Pump.** *For the purposes of this section, a Limited Service Fire Pump is a fire pump located above street level with a motor rating not exceeding 30hp and connected to a limited service fire pump controller.*

*Revise the third definition, On-Site Standby Generator, to read as follows:*

**On-Site Emergency Generator.** *An on-site facility producing electric power as the alternate supply of electric power meeting the requirements of Article 700.*

**SECTION 695.3**

*Subsection 695.3(B) - Revise to read as follows:*

**(B) Multiple Sources.** *Where required by the New York City Building Code, power from sources described in 695.3(A) shall be supplied from an approved combination of two or more such sources or an approved combination of one such source and an on-site*



*emergency generator. The on-site emergency generator, complying with this section, shall be of sufficient capacity to allow normal starting and running of the motor(s) driving the fire pump(s) while supplying all other simultaneously operated load. Optional standby loads shall be automatically shed when necessary to ensure the proper starting and operation of the fire pump.*

*Subsection 695.3(C) - Add a new subsection 695.3(C) to read as follows:*

***(C) Multiple Independent Sources.** Two or more feeder sources routed separately to the building and independently operated may be permitted for compliance with this section, as approved by the Commissioner of Buildings, where the reliability of the sources can be demonstrated.*

*Subsection 695.3(D) - Add a new subsection 695.3(D) to read as follows:*

***(D) Arrangement.** The power sources shall be arranged in separate outdoor enclosures or 2-hour fire resistive rooms so that a fire at one source will not cause an interruption of the other source.*

#### **SECTION 695.4**

*Section 695.4 - Revise to read as follows:*

***695.4 Continuity of Power.** Circuits that supply electric motor-driven fire pumps shall be supervised from inadvertent disconnection as covered in 695.4(A) or 695.4(B).*

***(A) General.** Each Circuit that supplies an electric motor-driven fire pump or limited service fire pump shall be supplied from single dedicated service disconnecting means*

*and associated overcurrent protective device installed between the power source and one of the following.*

*(1) A listed fire pump controller*

*(2) A listed fire pump power transfer switch, or*

*(3) A listed combination fire pump controller and power transfer switch.*

***Exception 1: The service conductors may directly connect the power source to either the listed fire pump controller or combination fire pump controller and power transfer switch where available short circuit current is less than the rating of the fire pump controller or combination fire pump controller and power transfer switch.***

***Exception 2: Where a limited service fire pump is connected to an emergency generator in addition to the electric utility source, the disconnecting means for either source is not required to be a service disconnecting means.***

***Exception 3: Where the building service disconnecting means consists of multiple utility sources over 600 volts arranged thru transformers to supply a network secondary, a disconnecting means connected to the network complies with the requirements of this section.***

***(B) Disconnecting Means and Overcurrent Protection***

***(1) Utility Service.*** *Fire pumps and limited service fire pumps shall have overcurrent protection selected as to allow the operation of the fire pump for as long as the fire pump remains capable of running.*

*(a) Fire Pump. Fire pumps overcurrent protection shall be selected at 600% of motor full load current. The next larger available device size may be used where selection results in a non-standard device size.*

*(b) Limited Service Fire Pump. Limited service fire pumps shall be protected by overcurrent devices selected at 150% of motor full load current. The next larger available device size may be used where selection results in a non-standard device size.*

*(c) Disconnecting means shall be listed to accept the selected overcurrent device with no modification.*

*Exception: Where direct connection is made in accordance with 695.4(A)(3)*

*Exception 1.*

**(2) Generator Supply.** *When required to be connected to an emergency generator, fire pumps and limited service fire pumps shall have overcurrent protection selected in accordance with the following.*

*(a) Fire Pump. Fire pumps shall be protected by an over current device selected at not less than 150 % and not more than 600% of motor full load current.*

*(b) Limited Service Fire Pump. Limited service fire pumps shall be protected by an overcurrent device selected at 150% of motor full load current. The next larger available size may be used where selection results in a non-standard size.*

*(c) Disconnecting means shall be listed to accept the selected fuse or circuit breaker trip with no modification.*

*Exception: Where direct connection is made in accordance with 695.4(A)(3)*

*Exception 1.*

*(d) A tap ahead of the on-site emergency generator disconnecting means shall be required for fire pumps.*

*Exception: Where multiple generators operate in parallel, the fire pump tap may be made on the parallel distribution bus.*

**(3) Disconnecting Means.** *The disconnecting means shall comply with the following.*

*(a) Be identified as suitable for use as service equipment.*

*(b) Be lockable in the closed position. Locking provisions shall remain in place with or without an installed lock.*

*(c) Not located within equipment that feeds loads other than the fire pump.*

*(d) Be located as remote as practical from other service disconnecting means with a minimum separation of 305mm (12 in.).*

*Exception: (a), (c), and (d) shall not apply to limited service fire pumps connected to emergency generators.*

**(4) Disconnect Marking.** *The disconnecting means shall be marked “Fire Pump - Do Not Disconnect”. The letters shall be at least 25mm (1 in.) in height, and they shall be visible without opening enclosure doors. Disconnecting means shall be red in color.*

**(5) Controller Marking.** *A placard shall be placed adjacent to the fire pump controller, stating the location of this disconnecting means and the location of the key (if the disconnecting means is locked).*

**(6) Supervision.** *The power continuity shall be supervised by one of the following.*

*(a) Central station signal confirming power source availability where central station connection is provided as required by building occupancy or use.*

*(b) Local signaling device, audible and visual, which is activated at a continuously attended location where central station connection is not otherwise required.*

## **SECTION 695.5**

*Section 695.5 - Revise to read as follows:*

### **695.5 Accessory Equipment**

**(A) Transformers.** *Where the service or system voltage is different from the utilization voltage of the fire pump motor, a transformer protected by disconnecting means and overcurrent devices shall be permitted to be installed between the system supply and the fire pump controller in accordance with the following.*

**(1) Size:** *Transformers shall be rated at a minimum of 125 percent of the sum of the fire pump motor(s) and pressure maintenance pump(s) motor loads, and 100 percent of the remaining load supplied by the transformer.*

**(2) Overcurrent Protection:** Primary disconnecting means and overcurrent devices shall be selected in accordance with 695.4(B)(1). Secondary disconnecting means and overcurrent devices shall not be permitted.

**(3) Feeder Source:** The feeders on the primary and secondary of the transformer shall be sized in accordance with the requirements of 695.6 adjusted for the primary & secondary voltage.

**(B) Utility Meters:** Metering of fire pumps shall be current transformer driven or bypass type such that meter removal will not interrupt service to the fire pump. Metering may be dedicated to the fire pump or coincident with other building power use.

**(C) Rectifiers:** Rectifiers may be used to supply existing DC fire pump installation in accordance with the following.

**(1) Size:** Where a rectifier supplies an existing DC electric fire pump, it shall be rated at a minimum of 125% of the fire pump full load current plus 100% of the full load current of all other equipment connected to the rectifier.

**Exception:** If largest motor is other than the fire pump, rectifier shall be sized at 125% of the largest motor and 100% of all other equipment.

**(2) Overcurrent Protection:** The primary disconnecting means and overcurrent device shall be rated at 150% of the rectifier full load current. The DC fire pump shall be supplied by a dedicated connection on the secondary of the rectifier. Disconnecting means and overcurrent devices shall not be permitted.

**(3) Feeder Source:** *The feeders on the primary and secondary of the rectifier shall be sized in accordance with the requirements of 695.6 adjusted for the primary & secondary voltage.*

**(4) Other Loads:** *Rectifiers installed to supply existing DC fire pumps shall be permitted to supply other loads. Rectifier capacity shall be increased in accordance with 695.5(C)(1). Each DC supply shall include a disconnecting means and overcurrent device sized in accordance with applicable sections of the code.*

### **SECTION 695.6**

*Section 695.6 - Revise to read as follows:*

**695.6 Power Wiring.** *Power circuits and wiring methods shall comply with the requirements in 695.6(A) through (H), and as permitted in 230.90(A), Exception No. 4; 230.94, Exception No. 4; 230.95, Exception No. 2; 240.13; 230.208; 240.4(A); and 430.31.*

**(A) Service Conductors:** *Fire pump and limited service fire pump service conductors shall be physically routed outside a building(s) and shall be installed as service entrance conductors. Where supply conductors cannot be physically routed outside buildings, routing through buildings is permitted where installed in accordance with Section 230.6(1), (2) or (4).*

**(B) Circuit Conductors:**

**(1) Fire Pumps.** *Fire pump supply conductors, including emergency supply conductors where emergency power is provided, on the load side of the final disconnecting means and overcurrent device shall be kept entirely independent of all other wiring. They shall*

*supply only loads that are directly associated with the fire pump system, and shall be protected to resist potential damage by fire, structural failure, or operational damage. They shall be permitted to be routed through a building(s) using one of the following methods:*

*(a) Rigid metal conduit (Steel RMC) encased in a minimum of 50mm (2 in.) concrete.*

*(b) Rigid metal conduit (Steel RMC) within an enclosed construction dedicated to the fire pump circuit(s) having a minimum of a 1-hour fire resistive rating.*

*(c) Be a listed electrical circuit protective system with a minimum 1-hour fire resistive rating. The installation shall comply with any restrictions provided in the listed of the electrical circuit protective system.*

*Exception: The supply conductors located in the electrical service room where they originate and in the fire pump room shall not be required to have the minimum 1-hour fire separation or fire resistance rating.*

**(2) Limited Service Fire Pumps.** *Limited service fire pump supply conductors shall be installed in rigid metal conduit (Steel RMC) or intermediate metal conduit (Steel IMC).*

*Exception: Where there are multiple sources of supply with means of automatic transfer from one source to the other electrical metallic tubing (EMT) shall also be permitted.*

**(C) Conductor Size.** *Conductors supplying a fire pump or a limited service fire pump shall have a rating not less than 125 percent of the full load current of the pump motor selected at no greater than the 75 degree operating temperature of the conductor type used.*



**(D) Pump Wiring.** All wiring from the controllers to the pump motors shall be in rigid metal conduit (Steel RMC) or have a minimum 1-hour fire separation or fire resistance rating.

**Exception No. 1:** Liquidtight flexible metal conduit (maximum of 915mm (36 in.)) is permitted for final connection to motor terminal housing.

**Exception No. 2:** Intermediate metal conduit (IMC) and electrical metallic tubing (EMT) shall be permitted for limited service fire pumps.

**(E) Junction Points.** Where wire connectors are used in the fire pump circuit, the connectors shall be listed. A fire pump controller or fire pump transfer switch, where provided, shall not be used as a junction box to supply other equipment, including a pressure maintenance (jockey) pump(s). A fire pump controller and fire pump power transfer switch, where provided, shall not serve any load other than the fire pump for which it is intended.

**(F) Mechanical Protection.** All wiring from engine controllers and batteries shall be protected against physical damage and shall be installed in accordance with the controller and engine manufacturer's instructions.

**(G) Ground Fault Protection of Equipment.** Ground fault protection of equipment shall not be permitted for fire pumps.

#### **SECTION 695.10**

Section 695.10 - Revise to read as follows:

**695.10 Listed Equipment.** *Diesel engine driven fire pump controllers, electric fire pump controllers, electric motors, fire pump transfer switches, foam pump controllers, and limited service controllers shall be listed and approved for fire pump use.*

**SECTION 695.14**

*Subsection 695.14(E): - Revise to read as follows:*

**(E) Electric Fire Pump Control Wiring Methods.** *All electric motor driven fire pump control wiring shall be in rigid metal conduit, intermediate metal conduit, liquidtight flexible metal conduit or Type MI cable.*

*Exception: Electrical metallic tubing (EMT) shall be permitted for limited service fire pumps.*

*Subsection 695.14(F) - Add Exception to read as follows:*

*Exception: Electrical metallic tubing shall be permitted for limited service fire pumps where provided with emergency generator supply.*

**ARTICLE 700**

**Emergency Systems**

**SECTION 700.1**

*Section 700.1 - Delete fine print notes (FPN) No. 2, 3, 4 and 5 and revise second sentence to read as follows:*

*Emergency systems are lighting, fire protection and power systems legally required and classed as emergency by any governmental agency having jurisdiction.*

**SECTION 700.4**

*Subsection 700.4(A) - Revise to read as follows:*

**(A) Acceptance Test.** *The Commissioner of Buildings shall receive a test report of the completed system upon installation, to be submitted by a licensed professional acceptable to the Commissioner.*

*Subsection 700.4(E) - Revise to read as follows:*

**(E) Installation Test Requirements.** *Installation test shall be conducted and documented in accordance with NFPA 110-2005, Section 7-13, amended as follows:*

*7.13.3: Delete.*

*7.13.4.1(5): Add at the end of (5): Time to initial load transfer shall not exceed 10 seconds.*

*7.13.4.1(11): Revise to read as follows: The load test with building load or other loads that simulate intended load shall continue for 2 hours observing and recording load changes and the resultant effect on voltage and frequency.*

*7.13.10.2: Delete and replace with the following: The complete crank/rest cycle shall consist of 3-15 second crank cycles with 15 second rest periods between cranks.*

7.13.13: Add new paragraph to read as follows: Transfer switches shall be tested in accordance with 8.4.6 as modified by New York City.

Subsection 700.4(F) - Add a new subsection 700.4(F) to read as follows:

**(F) Maintenance and Operational Testing.** Maintenance and operational testing shall be performed and documented in accordance with NFPA 110-2005, Section 8, amended as follows:

8.1.2: Delete.

8.2: Delete.

8.3.1: Delete the following text from the end: “ ...for the type and for the time duration specified for the class.”

8.3.4: Delete and replace with the following: A written record of the EPSS inspection, tests, exercising, operation, and repairs shall be maintained on premises and made available to the Commissioner of Buildings on request. Records shall be inclusive of the transfer switches and storage batteries.

8.4.4.1: Add a new sentence to read as follows: Inspection shall consist of observation of all EPSS components for leaks, abnormal device position and status of all alarm/trouble indicators.

8.4.5: Delete.

8.4.6: Change “monthly” to “semi-annually”.

8.4.6.1: Change “monthly” to “semi-annually”.

**SECTION 700.5**

*Subsection 700.5 (B) - Delete third paragraph of subsection 700.5(B), revise the first paragraph of such subsection and add a fine print note to read as follows:*

*The alternate power source shall be permitted to supply emergency, and optional standby system loads where the source has adequate capacity or where automatic selective load pickup and load shedding is provided as needed to ensure adequate power to (1) emergency circuits and (2) optional standby circuits, in that order of priority. The alternate power source shall be permitted to be used for peak load shaving, provided the above conditions are met.*

*FPN: Peak reduction program may require utility approval.*

**SECTION 700.6**

*Subsection 700.6 (E) - Add a new subsection 700.6(E) to read as follows:*

**(E) Mechanical Operation.** *Means shall be provided to mechanically operate the switch without hazard to personnel.*

*Subsection 700.6 (F) - Add a new subsection 700.6(F) to read as follows:*

**(F) Temporary Connections for Portable Generators.** *Temporary connection of a portable generator without transfer equipment shall be permitted where conditions of maintenance and supervision ensure that only qualified persons service the installation and where the normal supply is physically isolated by a lockable disconnect means or by*

*disconnection of the normal supply conductors. Portable generators shall not be paralleled except by special permission.*

*Subsection 700.6 (G) - Add a new subsection 700.6(G) to read as follows:*

***(G) Permanent Connections for Portable Generators.*** *Where a permanent installation is made for a portable generator, a disconnecting means and overcurrent protection shall be provided at the point of connection for the portable generator. Capacity shall not exceed the capacity of the permanent installation.*

**SECTION 700.7**

*Section 700.7 - Revise to read as follows:*

*Audible and visual signal devices shall be provided at a continuously supervised location for the following purposes.*

**SECTION 700.9**

*Subsection 700.9(A) - After the first sentence, add a new sentence to read as follows:*

*Acceptable means of marking shall include, but is not limited to, a permanently affixed identification nameplate, yellow in color with black lettering.*

**SECTION 700.10**

*Section 700.10 - Add a new section 700.10 to read as follows:*

***700.10 Conductors for Emergency Circuits.***

***(A) Ampacity of Conductors.*** *See Section 445.12.*

**(B) Installation of Conductors.** Generator conductors shall be installed in accordance with the requirements of Article 230, Service Entrance Conductors.

**(C) Overcurrent Devices.** There shall be no limit to the number of overcurrent devices connected to the generator terminal conductors.

**(D) Fire System Pumps.** Fire system pumps or fire protection pumps requiring connections directly to the emergency generator as defined in the New York City Building Code shall be connected as follows:

- (1) Circuits supplying fire system pumps shall be connected directly to the emergency generator with only one overcurrent protective device which shall be rated at not less than 150% and not more than 600% of the pump full load current.**

**Exception: Limited Service Fire Pump.** Limited service fire pumps shall be protected by an overcurrent device selected at 150% of motor full load current. The next larger available device size may be used where selection results in a non-standard device size

- (2) Where multiple generators are paralleled, the connection for the fire system pumps shall be taken from the generator paralleling bus.**

**Exception: Limited service fire pumps are not required to be directly connected to the emergency generator and may have additional overcurrent protective devices.**

- (3) Conductors and transformers feeding the system shall be sized at 125% of the pump full load current.**

*(4) Separate circuits shall be used for each fire system pump.*

*(E) Alarm Systems. All building-wide alarm systems shall be directly connected to the emergency generator with overcurrent protective devices as follows:*

*208/120 V systems - by a dedicated single set of fused cutouts.*

*460/265 V systems - by a dedicated fused disconnecting means with fused cutouts on the secondary of associated transformer.*

*Dedicated automatic transfer switch for all such systems.*

#### **SECTION 700.12**

*Section 700.12 - Revise the fourth paragraph and add a new exception to read as follows and delete the fine print notes:*

*Fire, sprinkler, standpipe, smoke detection, oxygen, nitrous oxide and other alarm or extinguishing systems shall be connected to the line side of the service equipment and shall have separate overcurrent protection.*

*Exception: Such systems installed for local area protection only, may connect ahead of the supply to the area protected.*

*Subsection 700.12(B)(2) - Revise the first sentence to read as follows:*

*Where internal combustion engines are used as the prime mover, an on-site fuel supply shall be provided sufficient for not less than 6 hours of operation at full demand load.*

*Subsection 700.12(B)(6) - Revise to read as follows:*



**(6) Outdoor Generator Sets.** *Where an outdoor generator set is permanently installed and is equipped with a disconnecting means and such generator set is located within sight of the building or structure supplied, an additional disconnecting means shall not be required where ungrounded conductors pass through the building or structure. Appropriate signage shall be provided at the generator set and at the first disconnecting means within the building or structure supplied.*

*Subsection 700.12(B)(7) - Add new subsection 700.12(B)(7) to read as follows:*

**(7) Temporary Generators.** *The equipment grounding conductor(s) of the derived system shall be bonded to the grounding electrode system.*

*FPN: See Section 250.34 for grounding of generator frame.*

*(a) Separately Derived System. Where a temporary portable generator is a separately derived system, it shall be grounded in accordance with 250.30.*

*(b) Not A Separately Derived System. Where a temporary portable generator is not a separately derived system, a grounding connection shall not be made to the grounded circuit conductor.*

*Subsection 700.12(C) - Add an exception to read as follows:*

*Exception: Uninterruptible power supplies shall not be permitted as the transfer device for fire alarm systems.*

*Subsection 700.12(D) - Revise the first sentence of subsection 700.12(D) to read as follows:*

*Where acceptable to the Commissioner of Buildings as suitable for use as an emergency source, a second service independent of the source normally supplying the building shall be permitted.*

*Subsection 700.12(E) - Delete the subsection in its entirety.*

**SECTION 700.26**

*Section 700.26 - Revise to read as follows:*

**700.26 Ground Fault Protection of Equipment.** *The alternate source for emergency systems shall not be permitted to have ground fault protection for equipment with automatic disconnecting means. Ground fault indication of the emergency source shall be provided per Section 700.7(D).*

**SECTION 700.30**

*Section 700.30 - Add a new section 700.30 under a new part “VII Grounding” of Article 700 to read as follows:*

**VII. Grounding**

**700.30 General.** *Grounding shall be in accordance with the provisions of Article 250.*

**SECTION 700.31**

*Section 700.31 - Add a new section 700.31 to read as follows:*

**700.31 Control Circuits.**

**(A) Grounding.** *Low voltage control circuits and DC control circuits derived from engine generator starting batteries shall have one leg grounded.*

**(B) Arrangements.** *Control circuits shall be arranged so that an additional accidental ground shall not cause operation of the connected devices.*

**(C) Return Path.** *Control circuits shall not make use of the equipment grounding conductor as a circuit path.*

#### **ARTICLE 701**

**Legally Required Standby Systems** - *Delete the article in its entirety and add a FPN to read as follows:*

*FPN: All legally required standby systems are classified as emergency systems.*

#### **ARTICLE 702**

##### **Optional Standby Systems**

##### **SECTION 702.6**

*Section 702.6 - At the Exception, add a second sentence to read as follows:*

*Portable generators shall not be paralleled, except by special permission.*

##### **SECTION 702.9**

*Section 702.9 - Add exception and FPN to read as follows:*

*Exception: Standby system wiring shall be isolated from other general wiring when system voltage exceeds 250 Volts nominal and conductors are protected by first or second level overcurrent devices.*

*FPN: See 300.3(C)(1) Exception No. 2 for additional information.*

#### **SECTION 702.12**

*Section 702.12 - Add a new section 702.12 to read as follows:*

**702.12 Portable and Temporary Generators.** *Portable and Temporary Generators shall comply with 700.6(G) and 700.12(B)(7).*

#### **ARTICLE 705**

##### ***Interconnected Electric Power Production Sources***

#### **SECTION 705.40**

*Section 705.40 - Add a second paragraph to read as follows:*

*Special detection methods shall be required to determine that a primary source supply system outage has occurred, and whether there should be automatic disconnection. When the primary source supply is restored, special detection methods shall be required to limit exposure of power production to out-of-phase reconnection.*

*- Delete FPN No.1 and renumber FPN No.2 as FPN.*

#### **SECTION 705.42**

*Section 705.42 - Delete "or legally required standby" from the last sentence.*

**ARTICLE 725**

***Class 1, Class 2 and Class 3 Remote-Control, Signaling and Power-Limited Circuits***

**SECTION 725.3**

*Subsection 725.3(C) - Revise the last sentence to read as follows:*

*Type CL2P or CL3P cables shall be permitted for Class 2 and Class 3 circuits in other spaces used for environmental air.*

**SECTION 725.8**

*Section 725.8 - Revise third sentence to read as follows:*

*Such cables shall be supported by approved non-combustible straps, staples hangers or similar fittings and related installation accessories designed and installed so as not to damage the cables.*

*- Add a fine print note to read as follows:*

*FPN: Exposed wiring is intended to be securely held in place during fire conditions to avoid entrapment of fire response personnel due to loose hanging wiring.*

**SECTION 725.51**

*Section 725.51 - Revise the exception by changing "14 AWG" to "12 AWG".*

**SECTION 725.52**

*Subsection 725.52(A) - Delete Exception No.2 and its FPN.*

**SECTION 725.55**

*Section 725.55 - Delete references to “non-power limited fire alarm” in all instances.*

*Subsection 725.55(I) - Delete references to “rigid nonmetallic conduit” and “liquidtight flexible nonmetallic conduit”.*

**SECTION 725.56**

*Subsection 725.56(E)(1) - Delete subsection 725.56(E)(1) in its entirety.*

**SECTION 725.61**

*Subsection 725.61(A) - Revise the title and the first sentence to read as follows:*

***(A) Other Spaces Used For Environmental Air.** Cables installed in other spaces used for environmental air shall be Type CL2P or CL3P.*

*Subsection 725.61(E)(5) - Delete subsection 725.61(E)(5) in its entirety.*

**ARTICLE 727**

**Instrumentation Tray Cable: Type ITC**

**SECTION 727.4**

*Section 727.4 - Revise to read as follows:*

***727.4 Uses Permitted.** Where approved, Type ITC cable shall be permitted to be used as follows in industrial establishments where conditions of maintenance and supervision ensure that only qualified persons will service the installation:*

*(1) In cable trays.*

*(2) In raceways.*

*(3) In hazardous locations as permitted in Articles 501.10, 502.10, 503.10, 504.20,*

504.30, 504.80 and 505.15.

(4) Enclosed in a smooth metallic sheath, continuous corrugated metallic sheath, or interlocking tape armor applied over the nonmetallic sheath in accordance with Section 727.6. The cable shall be supported and secured at intervals not exceeding 1.83m (6 ft).

(5) Between cable tray and equipment in lengths not to exceed 7.62 m (25 ft), where the cable complies with the crush and impact requirements of Type MC cable and is identified for such use. The cable shall be supported and secured at intervals not exceeding 1.83m (6 ft).

## **ARTICLE 760**

### **Fire Alarm Systems**

#### **SECTION 760.1**

Section 760.1 - Revise to read as follows:

**760.1 Scope.** The installation of wiring and equipment shall be as required by RS 17-3, RS 17-3A, RS 17-3B, and RS 17-3C of the New York City Building Code.

## **ARTICLE 770**

### **Optical Fiber Cables and Raceways**

#### **SECTION 770.2**

Section 770.2 - Revise the definition "Abandoned Optical Fiber Cable" to read as follows:

**Abandoned Optical Fiber Cable.** Installed optical fiber cable that is not terminated at equipment other than a connector and not identified for future use with a tag securely fixed to each end and indicating the location of the opposing end.

**SECTION 770.3**

*Section 770.3 - Revise first sentence to read as follows:*

*Circuits and equipment shall comply with 770.3(A), (B) and (C).*

*Subsection 770.3(C) - Add a new subsection 770.3(C) to read as follows:*

*(C) Electric Closets. Fiber optic circuits and equipment shall not be installed in electric closets.*

**SECTION 770.113**

*Section 770.113 - Delete the reference to “Article 352, rigid nonmetallic conduit Type RNC” from Exception No. 2.*

**SECTION 770.133**

*Subsection 770.133(A) - Delete all references to “non-power-limited fire alarm”.*

*Subsection 770.133(B)(2) - Delete the subsection in its entirety.*

*Subsection 770.133(D) - Add a new subsection 770.133(D) to read as follows:*

*(D) Electric Closets. Equipment and cabling shall not be installed in electric closets.*

**ARTICLE 780**

***Closed-Loop and Programmed Power Distribution***

***Delete the article in its entirety.***



**ARTICLE 800**

**Communications Circuits**

**SECTION 800.2**

*Section 800.2 - Revise the definition "Abandoned Communications Cable" to read as follows:*

***Abandoned Communications Cable.** Installed communications cable that is not terminated at both ends at a connector or other equipment and not identified for future use with a tag securely fixed to each end and indicating the location of the opposing end.*

**SECTION 800.24**

*Section 800.24 - Revise the second sentence to read as follows:*

*Cables installed exposed on the surface of ceilings and sidewalls shall be supported by the building structure in such a manner that the cable will not be damaged by normal building use or present a safety hazard.*

**SECTION 800.100**

*Subsection 800.100(A)(3) - Change "14 AWG" to read "12 AWG".*

**SECTION 800.133**

*Section 800.133 - Change "800.133(D)" to "800.133.(E)" at the end of the first sentence.*

*Subsection 800.133(E) - Add a new subsection 800.133(E) to read as follows:*

*(E) Electric Closets. Communication equipment and cabling shall not be installed in Electric Closets.*

**SECTION 800.154**

**Subsection 800.154(F) - Add the following two new sentences at the end of the subsection:**

*Notwithstanding any other provision of the Electrical Code, the installation shall not be performed by low voltage installers. Installation of hybrid power and communications cable shall be performed by licensed master or special electricians.*

**ARTICLE 810**

**Radio and Television Equipment**

**SECTION 810.58**

*Subsection 810.58(C) - Change "14 AWG" to read "12 AWG".*

**ARTICLE 820**

**Community Antenna Television and Radio Distribution Systems**

**SECTION 820.2**

*Section 820.2 - Revise the definition "Abandoned Coaxial Cable" to read as follows:*

***Abandoned Coaxial Cable.** Installed coaxial cable that is not terminated at equipment other than a coaxial connector and not identified for future use with a tag securely fixed to each end and indicating the location of the opposing end.*

**SECTION 820.100**

*Subsection 820.100(A)(3) - Change "14 AWG" to read "12 AWG".*

**SECTION 820.110**

*Section 820.110 - Insert “including the New York City amendments” between “tubing” and “apply”, at the end of the section.*

**SECTION 820.133**

*Subsection 820.133(D) - Add a new subsection 820.133(D) to read as follows:*

*(D) **Electric Closets.** Television and radio equipment and cabling shall not be installed in Electric Closets.*

**ARTICLE 830**

***Network – Powered Broadband Communications Systems***

**SECTION 830.2**

*Section 830.2 - Revise the definition “Abandoned Network-Powered Broadband Communications Cable” to read as follows:*

***Abandoned Network-Powered Broadband Communications Cable.** Installed network-powered broadband communications cable that is not terminated at equipment other than a connector and not identified for future use with a tag securely fixed to each end and indicating the location of the opposing end.*

**SECTION 830.47**

*Subsection 830.47(B) - Revise the first sentence and Exception No. 2 to read as follows:*

*Direct-buried network-powered broadband communications cables shall be separated at*

*least 305 mm (12 in.) from conductors of any light, power or Class 1 circuit.*

*Exception No. 2: Where electric light or power branch-circuit or feeder conductors, or Class 1 circuit conductors are installed in a raceway or in metal-sheathed, metal-clad cables; or the network-powered broadband communications cables have metal cable armor or are installed in a raceway.*

**SECTION 830.100**

*Subsection 830.100(A)(3) - Change "14 AWG" to read "12 AWG".*

**SECTION 830.133**

*Subsection 830.133(E) - Add a new subsection 830.133(E) to read as follows:*

*(E) Electric Closets. Broadband communication equipment and cabling shall not be installed in Electric Closets.*

§16. (a) This local law shall take effect on January 1, 2007. Prior to January 1, 2007, the commissioner of buildings may promulgate any rules and perform all other actions necessary for the implementation of this local law.

(b) A copy of the 2005 edition of the National Fire Protection Association NFPA 70 National Electrical Code, incorporated by reference into this local law, shall be kept on file by the City Clerk with this local law and shall be available for public inspection.

THE CITY OF NEW YORK, OFFICE OF THE CITY CLERK, s.s.:

I hereby certify that the foregoing is a true copy of a local law of The City of New York, passed by the Council on November 29, 2006 and approved by the Mayor on December 5, 2006.

Victor L. Robles, City Clerk of the Council

CERTIFICATION PURSUANT TO MUNICIPAL HOME RULE LAW §27

Pursuant to the provisions of Municipal Home Rule Law §27, I hereby certify that the enclosed Local Law (Local Law 49 of 2006, Council Int. No. 425-A) contains the correct text and:

Received the following vote at the meeting of the New York City Council on November 29, 2006: 49 For, 0 Against, 0 Not Voting.

Was signed by the Mayor on December 5, 2006.

Was returned to the City Clerk on December 5, 2006.

Jeffrey D. Friedlander, Acting Corporation Counsel