

*Pass
Intro
Records*



John H. Banks
Vice President
Government Relations

September 21, 2010

The Honorable Erik Martin Dilan
Chair, Committee on Housing and Buildings
New York City Council
250 Broadway
New York, NY 10007

Dear Chairman Dilan:

I would just like to take a moment to express the company's support for Intro. 64, which addresses the electric code. This bill is comprehensive and we believe it is protective of the public and the many parties that work in New York City.

Con Edison has been an active participant in the code's development, and we believe this document represents the collaborative effort that was undertaken by the various parties that work in the electrical field. We are proud of the cooperative nature that the Department of Buildings fostered through this process and believe that it should be replicated in future endeavors.

Sincerely,

John H. Banks

**Intro 64 - Electrical Code Amendment Hearing
NYC Council – Housing & Buildings Committee
Testimony by Buildings First Deputy Commissioner Fatma Amer**

September 21, 2010

Good afternoon, Chairperson Dilan and members of the Committee on Housing and Buildings. My name is Fatma Amer and I am the First Deputy Commissioner of the Department of Buildings. I am joined today by Jack Bunk, the Department's consultant for the Electrical Code revision and former Director of the Department's Electrical Division and Chantal Senatus, the Department's Assistant General Counsel in charge of the legal review of the Electrical Code. Thank you for this opportunity to testify today in support of Intro 64, regarding the 2010 Electrical Code. We are pleased to work with you in implementing the amendments to the Electrical Code that will reflect technological advances and facilitate operational changes for the Department.

Adopted in 1915, the New York City Electrical Code was the first set of codified electrical standards in the United States. At that time, the code was a modern and forward-thinking set of standards that provided a safe and uniform means for harnessing electricity. However, as time passed, the electrical code became increasingly unwieldy, outdated and difficult to implement.

In 2001, the Department committed to updating the Electrical Code. Local Law 64 of 2001 addressed the shortcomings of the Electrical Code by replacing its technical provisions with the 1999 National Electrical Code -NFPA 70. That legislation required a three year revision cycle so as to ensure that the Code will always be up to date and reflect the latest standards. It was followed by Local Law 41 of 2002, a prerequisite to implementing the new Code, as it adopted amendments tailoring the National Electrical Code, otherwise known as the "NEC," to the specific needs of New York City's high-density urban environment. The first revision in this new scheme was Local Law 81 of 2003; the second was Local Law 49 of 2006 and Intro 64 of 2010 will be the third.

The Department supported committees that served as the vehicle for the three year revision cycle and the source of the proposed local amendments. The Electrical Code Revision and Interpretation Committee has a technical focus, managing the work of six panels covering every chapter of the NEC. The Electrical Code Advisory Committee served as the managing committee for the process - reviewing the product of the Administrative Panel as well as the technical provisions approved through the Electrical Code Revision and Interpretation Committee.

In forming these committees and panels, the Department included members from every area of the electrical industry - electrical contractors, engineers, inspectors, manufacturers, utilities and solar -so that a comprehensive product could be created. We at the Department appreciate their time and contributions to this extraordinary effort.

In January 2008, the Committees started the process for reviewing the NEC 2008 and the administrative provisions of the Code. The amendments resulting from their review form the basis of Intro 64. I am very proud to say that these amendments constitute a consensus document and modify the NEC 2008 with consideration of the unique characteristics of the City of New York. The members of the Committees, including the representatives of the electrical contracting associations, were sent final drafts of the proposed legislation on four occasions, the first after our final meetings in January 2009 and the last in April of this year.

The proposed legislation would amend the administrative code to adopt the NEC 2008 with amendments - creating distinctive requirements for building and construction in New York. This legislation would recognize important advances in technology and materials made in the past several years and allow the administrative provisions to conform to changes made under the Department's 2008 Construction Codes, leading to consistency for all Department-licensed trades.

Given the nature of the adoption process, the majority of our amendments to the NEC 2008 are consistent with changes made to previous editions of the NEC, which is also on a three year revision cycle. For instance, the NYC Electrical Code has required that the minimum size of wiring be 12 AWG ("American Wire Gauge") rather than the 14 AWG under the NEC. This amendment promotes safety by requiring larger wiring that is more durable and has a higher maximum amperage. Another example is the NYC Electrical Code's limitation on the use of liquidtight flexible nonmetallic conduit as a wiring method because this type of wiring doesn't offer sufficient protection of circuitry from physical damage.

This bill also:

- Removes our previous amendment requiring that completed photovoltaic system assemblies be tested by a Nationally Recognized Testing Laboratory (NRTL) and now simply requires that the contractor make available to the Department a detailed diagram of the entire photovoltaic system installed. This change facilitates the installation of solar panels and promotes the use of solar energy by decreasing costs.
- Authorizes the suspension of Electrical Permits without notice in cases of imminent peril to life or property. (27-3019)
- Defines the arrangement of circuit-wiring, known as selective coordination, to prevent or minimize short circuiting and arc-faults.
- Adopts Fire Alarm System requirements for power and wiring into the proposed legislation that were previously in the NYC Building Code.

- Mandates that fire pumps and limited service fire pumps have overcurrent protection to allow the operation of a fire pump for as long as possible in an emergency.
- Defines electrical closets as dedicated to electrical distribution equipment and sizes the electrical closet to provide sufficient working space.
- Clarifies the requirements of essential electrical systems for Healthcare Facilities to create an increased measure of safety by requiring additional transfer switches so that emergency systems continue to operate using emergency power.
- Clarifies the requirements for the installation of Sidewalk Shed Lighting to take into consideration electrical provisions relating to outdoor use and other relevant conditions.
- Clearly outlines licensees' business requirements for public transparency. (27-3013)

Enactment of this bill will continue the modernization process we started with Local Laws 64 of 2001 and will ensure that NYC's Electrical Code is updated to recognize and regularly implement technical changes. These updates are essential, not only to keeping up technologically but to creating and maintaining safe practices for electrical installation.

Passage of this bill will also affirm the partnership we have developed between the private and public sectors –both dedicated to making New York City a safer place to live, work and build.

Thank you once again for holding this hearing and allowing me to testify in support of Intro 64. We would be happy to address any technical or other questions you may have.

**TESTIMONY OF SAL ANELLI
PRESIDENT
INNER CITY ELECTRICAL CONTRACTORS, INC.**

**PUBLIC HEARING ON
INTRO- 64
NEW YORK CITY COUNCIL
COMMITTEE ON HOUSING AND BUILDINGS**

SEPTEMBER 21, 2010

Good Morning Chairman Dilan and City Council Members of the Committee. My name is Salvatore Anelli. I am president of Inner City Electrical Contractors, Inc. and the vice president of the National Electrical Contractors, NYC Chapter an association consisting of over 200 local electrical contractors in New York City representing approximately 70% of the electrical work performed in New York City. I am also a member of the Electrical Code Revision Committee (ECRIC) and Electrical Code Advisory Committee (ECAC) since their inception. I am pleased to testify today on behalf of those contractors and for my industry and thank the chairmen and committee for the opportunity to do so.

Intro 64 is the latest amendments to the New York City electrical code which consists of two parts, the technical standards, which basically gives the electrical contractor guidelines for equipment, technologies and installation of such for compliance. The second part is the administrative section, which is the regulation under which an electrical contractor operates in the city of New York, inclusive of qualification, conduct, enforcement etc.

Though we have minor conflicts with the technical standards section, we are pretty much in agreement of the latest revisions; we believe that the intent of the latest changes makes New York City an electrically safer city; however we cannot say the same for the administrative section.

The wholesale changes made to the administrative part are detrimental to the electrical contractor doing business in New York City, and have no additional safety value. They only serve to ease the burden on the Building Department while overloading the electrical contractor.

Just like the technical standards this part of the code was to be reviewed by the Electrical Code Advisory Committee (ECAC) of which I am part of. The last time this committee met was November of 2008, since then we received a final draft via email and were asked to make comments, however it was always understood that the panel would meet to finalize this. Email is a wonderful vehicle for communicating; however a document of this importance should be discussed at a table with all parties present.

We, the New York City electrical contractors are on the front line of this code, we are the only ones who are sworn to uphold this code, and we are the only ones that can be levied sanctions against, that is why it is vital that our voice is heard. We are ready and willing to share our concerns with the Building department and make the proper changes. We strongly suggest that you do not pass this Intro 64 and allow the electrical industry to be part of this process.

Thank you for hearing our concerns.

**TESTIMONY OF RICHARD SOBEL, PE LEED AP
PRESIDENT
QUANTUM ELECTRIC, INC.**

**PUBLIC HEARING ON
INTRO- 64
NEW YORK CITY COUNCIL
COMMITTEE ON HOUSING AND BUILDINGS**

SEPTEMBER 21, 2010

Good Morning Chairman Dilan and City Council Members of the Committee. I am pleased to testify today and thank the chairman and committee for the opportunity to do so.

My name is Richard Sobel. I am president of Quantum Electric Corp., a member firm of the National Electrical Contractors Association's NYC Chapter on whose behalf I speak today. For the past 20 years I have been a part of the code making and interpretation process both on the National level as a principal of National Electric Code making panels and here in NY as a member of the Electric Code Revision and Interpretation Committee and as a Chairman of one of our six Electrical Code Making Panels.

Our member firms, which collectively perform 70% of the electric work in New York, are extremely proud of our excellent electrical safety record. While the quality of our workforce and our collective commitment to training is crucial so too is the stringent standards we have helped to develop through the electrical code making process. New York is not an ordinary city. The density and diversity of its buildings is unrivaled in the United States and this poses many challenges to performing safe and reliable electrical installations.

While we might take issue with a few of the technical aspects of Intro 64 we know that code making is a continuous process. Every cycle allows us the opportunity to review and refine the code to best insure safety and incorporate new technologies. Soon the review and integration of the new 2011 NEC should begin here in New York. The members of NYECA look forward to actively participating in the process so that we may do our part to insure NYC has the best possible electrical code.

Unfortunately we are here today to speak against passage of this document based on the profound changes it makes to the administrative sections of our code. While we can understand some of the good intentions a few of these changes represent many of them we cannot understand. We see a vast and unchecked expansion of regulatory power over our businesses. We believe these changes will increase costs and deter future development while offering little or no additional safety beyond the present requirements. We feel these changes did not receive the proper public vetting by all the affected stakeholders and as such we urge you to defer passage of this bill until a public debate can take place, the consequences of these changes be understood and any necessary revisions be incorporated.

Thank you for your time and consideration.



Eaton Corporation
830 Third Ave, 7th Floor Suite
New York, NY 10022
Tel: 212-833-0255
Fax: 212-833-0250

September 21, 2010

New York City Council Members
New York City Council
250 Broadway - 14th Floor
New York, NY 10007

Ladies and Gentlemen,

My name is Christopher Rogan. I work for Eaton Corporation, a manufacturer of fusible switches, circuit breakers and electric power distribution equipment. I have been a member of NYC's electrical community for the past 17 years. I am here today to testify in support of the NYC Amendment to Article 100 that clarifies the definition of Selective Coordination.

I come from a family of civil servants; my mother was on the police force and my father was a fireman. Both of my brothers were firemen. Matthew, the youngest, died in the World Trade Center collapse on 9/11/01. From both a personal and professional perspective, I favor policies and practices that balance fiscal responsibility while ensuring human safety.

The proposed definition for Selective Coordination to the 0.1 second level provides the general public a high level of protection and continuity of service at a reasonable cost. It allows licensed engineering professionals to design electrical distribution systems that permit the appropriate fuse or circuit breaker closest to the "short-circuit" or "fault" to open or stop the flow of electricity. This results in the rest of the building remaining in service, thus avoiding costly power outages.

The types of faults that occur in the under 0.1 range known as "bolted faults" are rare and according to the IEEE account for less than 1% of total short circuits. These are generally man-made and occur during during initial wiring and installation, prior to building occupancy, or during a scheduled maintenance period when the general public would not likely be in danger.

Unfortunately, with selective coordination in the region below 0.1 second, the safety of electricians, maintenance workers or even first responders can be jeopardized due to their exposure to higher arc flash hazards, including 3rd degree burns, blindness, loss of hearing and other body trauma. In these circumstances it is critical to have ANY breaker or fuses in the circuit open as quickly as possible to disconnect power – thus sacrificing coordination and convenience rather than human life.

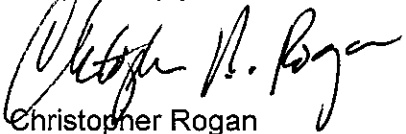
Since the initial publication of the 2008 National Electric Code, there has been considerable published documentation available from the IEEE and other professional organizations on the subject of selective coordination. I applaud all of the work that was done by the esteemed members of the various NYC Code Making Panels to thoroughly examine this information and properly evaluate the issues prior to submitting the proposed NYC Code Amendments now before you for approval.

New York City is not alone in moving towards a reasonable and safer application of the 0.1 Selective Coordination standard. The State of Florida has successfully used the same 0.1 Standard in hospital applications for the past 15 years without one reported case of loss of life due to a lack of coordination below 0.1 second. The 2010 State of California Electric Code has also adopted the 0.1 second Selective Coordination threshold.

I am pleased that NYC is joining these states and other municipalities in taking a balanced and sensible approach in adopting Selective Coordination to the 0.1 second standard.

Thank you for your time and consideration.

Respectfully yours,

A handwritten signature in black ink, appearing to read "Christopher N. Rogan". The signature is fluid and cursive, written over the printed name.

Christopher Rogan
Application Engineer
LEED Accredited Professional

Comments on Intro 64
September 21, 2010

Mr. Chairman and members of the committee, thank you for giving me the opportunity to offer comments on this matter of revising the New York City Electrical Code. My name is Rick Miller and I am here to voice my enthusiastic support for this legislation and urge you to recommend quick adoption of these revisions.

By way of background I am a licensed professional engineer in the state of New York and have been actively involved in the electrical industry for over 35 years. For the past 25 of those years my work has been here in New York City. I am a member of the New York City Department of Buildings Electrical Advisory Board as well as the DOB's Electrical Code Revision and Interpretation Committee. Since 1988 I have served alongside a number of dedicated individuals who annually volunteer hundreds of hours to help the DOB maintain an up-to-date electrical code. Our motivation is to insure public safety and to help promote competitiveness in New York's electrical construction market.

For the record I want to compliment the DOB on the rigorous process adhered to during the development of the code revisions before your committee. Care was taken to recruit for the working groups representatives from all major stake-holders such as the real estate owners and developers, national and local manufacturers, designers, contractors, labor and electrical inspectors. In this way all perspectives were brought to the table early in the discussion. A few of the code provisions may be considered controversial and today we might in fact hear some opposition. Having been personally involved with much of the debate that resulted in this legislation, I can tell you that all arguments have been thoroughly vetted and the document before you is as close to a unanimous consensus of the electrical community as one could hope for.

It was the intent of the DOB for this code revision to take effect January 1, 2010. Due to City Council's failure to act on the legislation the New York electrical industry now finds itself in September without the benefit of our revised code. I echo the statement of support from the Mayor's office when I say that the electrical community and DOB have made a commitment to ensure that New York City's electrical code is updated on a regular basis to recognize and implement the continuing advancement in technologies. I urge the committee's support in helping to expedite adoption of Intro 64 into law.

Respectfully submitted,

Rick Miller, PE

Contact Power, Inc.

726 Route 202 South, Suite 320

Bridgewater, NJ 08807

email Rick.Miller@ContactPower.Net

Phone 908-295-4845

New York City Council Housing and Buildings Committee Hearing on the Electrical Code.

September 21, 2010
250 Broadway
14 Floor Hearing Room
New York City

Testimony given by Vincent Logozzo

Good Morning,

My name is Vincent Logozzo and I am a New York City Licensed Master Electrician. I have been licensed to perform electrical work in the city of New York for the past 11 years, and I have worked in the Electrical Contracting Industry in our city for the past 21 Years.

I am here today representing the Five Boro Licensed Electrical Contractors Association as the associations President. Our association is comprised of 300 Electrical Contracting Companies that are licensed to work in New York City and together we employ approximately ten thousand employees. Our association has been established for 53 years and has always worked directly with the Department of Buildings, and the city council in relation to updating and implementing changes to what we all know as the New York City Electrical Code.

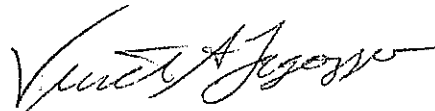
Five Boro is always contributing it's time and efforts for the safety of the citizens of New York City. We donate our time on various New York City committees, which include the Electrical Code Interpretation and Revisions Committee, the Electrical Advisory Board, and the Electrical Licensing Board.

We have had numerous conferences and discussions with representatives from the Department of Buildings, to discuss our concerns in reference to Intro 64, before it was introduced to this committee. When we received a copy of the draft, we noticed that our concerns have fallen on deaf ears. I am here to testify for the record that the Five Boro Electrical Contractors Association is against the implementation of Intro 64, mainly due to the proposed changes to the administrative section of the New York City Electrical Code. We feel that the implementation of these changes will be detrimental to the electrical contracting industry in our city, open the door to more unlicensed work, and will indirectly affect the safety and welfare of the citizens of New York City.

This proposed legislation removes the responsibility of the city council and gives the commissioner of the department of buildings the opportunity to make future changes and rulings on his own. This "*Carte Blanche*" way of implementing changes in the law is simply unjust and unfair to the taxpaying citizens of our city. The proposed legislation does not include stringent consequences for individuals who are caught performing unlicensed electrical work, but focuses mainly on the individuals who are running legitimate businesses. These are just a few reasons why our association is against the passing of this legislation.

For the sake of moving forward and making the New York City Electrical Code current, I would suggest that only the proposed changes to the technical portion of the New York City Electrical Code be re-introduced and the administrative portion of the Electrical Code be left as it stands in law today without the proposed changes.

I thank you all for your time and attention!



Vincent Logozzo
President
Five Boro Licensed Electrical
Contractors Association

TESTIMONY BEFORE THE NEW YORK CITY COUNCIL

COMMITTEE ON HOUSING AND BUILDINGS

TUESDAY, SEPTEMBER 21, 2010

On behalf of

VERIZON COMMUNICATIONS

Good afternoon. My name is Richard Windram. I am Director of Government Affairs for Verizon-New York.

I appreciate the opportunity to speak before the City Council's Committee on Housing and Buildings on behalf of Verizon Communications regarding the proposed changes to the city's electrical code as found in Intro 0064.

First, I would like to recognize both the Department of Buildings and the City Council for their tireless efforts to continuously review and update the City electrical code. Your work ensures that NYC standards are keeping pace with the National Electrical Code revisions and placing the City at the forefront of our nation in maintaining the highest of technical standards.

However, Verizon does have some concerns with the most recent proposed revisions. Verizon believes that as constituted presently some changes will provide significant hardship and create disparity in the highly competitive communication marketplace. Therefore, Verizon respectfully, request that the Committee closely review and seek clarification from the Department of Buildings on the following items, which are found in both Article 770 (Optical Fiber Cables and Raceways) and Article 800 (Communications Circuits)

1. Clearly there appears to be a disparity between what is being required for Article 770 - Optical Fiber Cables and Raceways and Article 800 - Communications Circuits versus Article 820 - Community Antenna Television and Radio Distribution Systems. The fact that proposed changes to Articles 770 and 800 are not being applied to Article 820 creates an unlevel playing field between providers of communication & cable services. If accepted by New York City these recommend changes would create a competitive advantage to those

companies that primarily use coaxial cabling to offer their services. We suggest that if no changes have been deemed necessary for Article 820, the same should be concluded for 770 and 800.

2. The elimination of using plenum communications raceway, listed riser raceway, or listed general purpose communications raceway would make it virtually impossible to run communications infrastructure vertically within a building. Verizon would appreciate a better understanding as to the reasoning for this elimination and an explanation on how Verizon is now suppose to run cabling. Verizon believes these raceways are valid and should be able to be used as intended and Listed. Additionally, cables and raceways should be able to be installed in ducts or plenums as prescribed in the entirety of Section 300.22
3. The requirement to use threaded metal raceways would add an undue burden and cost to communications and fiber installations, as well as, create ascetic issues on one and two family dwellings. Furthermore, Verizon believes this requirement is totally unnecessary when the raceway is not being used as a grounding path nor are there any electrically conductive components being used. At minimum there should be an exception for nonconductive fiber.
4. The restriction of communications equipment and cabling being installed in electrical closets may also present some problems. Verizon would like to know if communications cabling that passes through electrical closets would be restricted. Also, Verizon would like to know if equipment rooms that currently co-locate communications and electrical equipment will be reclassified as electrical closets. While electrical closet is defined as *“a room containing substantial electrical distribution equipment such as vertical risers, bus ducts, transformers or panelboards.”*, Verizon believes more clarification on how a room will be classified is necessary. Additionally, with rooms potentially being classified as electrical closets this classification will now put a new burden on building owners to create separate closets for communications equipment.

Once again, I thank the Committee for the opportunity to express Verizon’s concerns.

Verizon looks forward to working with both the Committee staff and the Department of Building going forward.

Thank you.

The New York City Council

Committee on Housing and Buildings

Hearing on Int. 0064-2010 - A Local Law to amend the Administrative Code of the City of New York, in relation to the electrical code.

Testimony by Serge Budzyn, Chair, Electrical Codes Committee, American Council of Engineering Companies of New York

Tuesday, September 21, 2010 at 10:00 a.m.

On behalf of the the American Council of Engineering Companies of New York / Metropolitan Region ("ACEC New York"), I'd like to thank Chairman Dilan and the members of the Building Committee as well as Speaker Quinn for their tireless efforts over the years, updating the City's construction codes. As a principal of Lilker Associates, a Mechanical and Electrical Consulting Engineering firm, and as Chair of the ACEC New York Electrical Codes Committee, I am here today to testify in support of the proposed amendments to the New York City Electrical Code.

Founded in New York City in 1921, ACEC New York is one of the oldest continuing organizations of professional consulting engineers in the U.S. ACEC New York represents 220 engineering firms throughout New York State that collectively employ more than 17,000 people statewide, with a concentrated presence of firms located within the five boroughs of New York City.

ACEC New York is dedicated to promoting growth of the industry through the education of our members, promotion of cooperative relationships, and by addressing specific areas of concern on behalf of our membership. Over the last several years, the members of ACEC New York have devoted thousands of hours to the review and overhaul of the New York City construction codes and the 2008 revision of the New York City Building Code.

To ensure that New York City remains on the cutting edge of technology and electrical engineering, it is important that our codes, particularly our electrical code be updated periodically. Technology in the building trades, particularly in connection with electrical engineering work, is a constantly evolving science. Since 2001, when New York City adopted the National Electrical Code (NEC), we have made great strides to incorporate green initiatives including solar and wind power installations and other such technologies that require a state-of-the-art electrical code.

Specific improvements in the current version of the code include the elimination of UL site inspections for photo-voltaic systems (Article 690). The better clarity in the 2008 NEC as to how such systems are installed will expedite work and reduce installation costs. Another is the addition of Article 708 Critical Operations Power Systems which defines criteria for the design and installation of specialized facilities so that critical operations will remain functional during emergency response situations, whether natural or man-made. Finally, Article 760 integrates the FDNY installation requirements into the electrical code, allowing work that is to be performed by electrical contractors to be handled with a document they use daily.

Fortunately, the New York City Electrical Code was drafted with sufficient clarity of purpose to make such innovations in a complex industry possible. Regular periodic updates to the code, which coincide with the NEC three year cycle, ensure continued adaptability to an ever changing world.

ACEC New York will continue to work with the Department of Buildings and the New York City Council to ensure that future updates reflect the on-the-ground issues encountered by our engineers, architects and builders every day as well as best practices for safety and sustainability. We respectfully offer our support for this current round of amendments which reflect those objectives.

September 21, 2010

**Five Boro Electrical Contractor Association Inc's
Hearing Testimony to the New York City Council
Regarding Int. #64 – A local law to amend the
Administrative code of the City of New York, in relation to
the electrical code.**

Thank you Mr. Chairman and distinguish members of this Committee for having inviting us to speak on the mater before us this morning.

My name is Mohamad A. Mohamad

I represent Five Boro Electrical Contractors Association Inc. Our Association members are New York City licensed electrical contractors and numbers approximately 300.

My position in the organization is Treasurer and Financial recording secretary, I'm also chairman and founder of the continuing education committee and chairman of Code and Code Interpretation Committee which is why I'm here presenting our memberships strong opposition to the Administrative section of this proposed legislation.

We take pride in our relationship with the City and the Industry in doing our part working as a whole to make New York City a safe place for its inhabitants.

For many years we worked very closely with the City's ECRIC (electrical code revision and interpretation committee) and the ECAC (electrical code advisory committee). We are also applicably represented in every electrical city agency to help promote standards and procedures that better our installations (technical standards) and meet the requirements of the administrative provisions.

As an association our responsibility is to provide input to the industry and make known our concerns to the different electrical agencies of the City regarding changes that affect the licensed electrician and to educate our members through continuing education as to the outcome of any such changes, as electricians our job is to stay current, but to do that we need to be part of the whole process in order to lessen the confusion.

All of us play a very important roll in this very delicate commerce. New technologies, methods, and products are constantly being introduced and installed, the City Council, Building Department, electrical inspections, product inspections, manufactures, engineers, and a qualified electrical work force all need to work together to insure that the electrical coffee pot plugged into the electrical wall outlet fits, is the plug and cord the proper size, does the electrical element that heats the water sufficient, is the circuit breaker for the appliance properly sized, did the electrical installation meet the minimum standards, did the installation pass inspection, was the product tested for its safe use, the user does not question these issues, their only expectation is does the electrical system function and when can I taste that perfect cup of coffee. That's the point; working together we provide a safer brew.

Continued:

This proposed legislation was not submitted to our code committee for review, correlation, or comments prior to its submission to the City Council. However in the spring of 2009 we responded to the Department of Buildings after being made aware of an early unofficial draft which led to our concerns, we informed the City of our opposition to the unofficial draft by mail and by phone. We requested a meeting as early as possible to discuss our objections. We were asked to submit in writing our objection (which we did) during a prearranged two party telephone conversation with the Building Department and members of our committee, during this phone conversation we discussed some of the main opposition to the unofficial draft, their reply was they would get back to us as soon as possible since they had to meet a deadline in submitting the proposed legislation Int. #64 to the City Council. No reply was forthcoming.

At this time I'd like to conclude that we were left out of the process and feel that the New York City suffers due to a lack of commitment by the Department disingenuous procedure. The current proposed legislation sets us back and leaves the city at risk due to its ambiguous proposals, which is why we oppose this proposed legislative Int. #64 unequivocally.

In the future we need to apply ever effort collectively keeping our electrical codes current administratively and technically. We need to keep our citizenry safe by collectively involving all of us and not circumventing ones views so New Yorkers can enjoy its morning brew.

Respectfully Submitted
By
Mohamad A. Mohamad
Treasury Secretary

Regarding Â§ 27-3025 The *Proposed* New York City amendments to the 2008 National Electrical Code.

Action Sought: Delete proposed amendment to Article 100, Definitions, Coordination (Selective)

1. Proposed amendment makes the definition improper:

Definitions in the NEC are not to contain requirements and it is assumed the same applies to the NYC amended adoption of the NEC.

NATIONAL ELECTRICAL CODE STYLE MANUAL

1.2.2 "Definitions. Definitions shall be in alphabetical order and shall not contain the term that is being defined. Definitions shall not contain requirements or recommendations."

In addition, NEC Section 90.5(A), mandatory text is characterized by the use of the term *shall* or *shall not*. Definitions in the NEC are not mandatory text and therefore cannot contain the words *shall* or *shall not*.

This proposed NYC amendment adds a sentence to the NEC definition and is improper for a definition. This sentence is written as a requirement, includes "shall" and uses the term that is being defined:

"For the purposes of this code two overcurrent protective devices shall be deemed selectively coordinated if their respective time-current characteristic curves do not intersect at a time of 0.1 seconds (6 cycles on 60 Hz systems) or longer."

2. The proposed NYC amendment essentially requires selective coordination only for overloads, which is inadequate for life safety circuits. The NEC requirements for selective coordination are for the full range of overcurrents which includes overloads, low level fault currents, and high level fault currents.

In the 2011 NEC cycle, Panel 13 clarified that the selective coordination requirements are for the full range of overcurrents in a Panel Statement to Proposal 13-198:

"Panel Statement: The existing text of 700.27 already requires selective coordination for the full range of overcurrents, from overloads through the available short-circuit current, with all upstream devices. ..."

The city of New York typically has high fault current in many of its buildings. Accepting this proposed amendment of 0.1 seconds will reduce the reliability of power for life safety loads.

3. Selective Coordination Down to 0.1 Seconds is Less Stringent than National Electrical Code and Reduces the Level of Safety:

Several National Electrical Code Panels have considered Proposals recommending selective coordination for times of 0.1 seconds or greater during the NEC 2005, 2008 and 2011 cycles. Below is an example of a rejected proposal from the 2011 NEC cycle. This demonstrates that modifying the selective coordination requirement to times down to 0.1 seconds is a less stringent requirement per NFPA Code Panel 13. Panel 13 is responsible for the selective coordination requirement in NEC Sections 700.27, 701.18, and 708.54.)

2011 National Electrical Code Report on Proposals

Proposal: 13-195 Log #3953 NEC-P13 Final Action: Reject

Concerning: 700.27

Proposed Recommendation: Revise text to read as follows:

700.27 Coordination "Emergency system(s) overcurrent devices shall be selectively coordinated with all emergency system supply side overcurrent protective devices for faults with a duration of 0.1 seconds and longer."

Panel Statement: "The 0.1 second limit in this proposal could reduce the level of safety by limiting the types of overcurrents that would need to be isolated to the nearest upstream device. Requiring selective coordination down to only 0.1 seconds will cover only overloads and a few minor phase-to-phase and minor ground faults."

4. **Accepting the proposed amendment will increase the liability for engineers, contractors, inspectors and owners.** Imagine a high rise is designed and installed to minimally comply with the amended NYC requirements and an overcurrent protective device cascading incident occurs during an emergency situation, with serious injuries to people. How does the engineer, contractor, owner, and inspector defend what they designed/built/approved, since it is to a lesser requirement than the NEC (Articles 620, 700, 701, 708)? There is simply no need to increase everyone's liability, especially when considering the aftermath of Katrina where there are recent judgments against engineers and owners who complied with the most stringent consensus standards and still lost.

Regarding Â§ 27-3025 The *Proposed* New York City amendments to the 2008 National Electrical Code.

Action Sought: Delete proposed amendment to ARTICLE 100, Definitions, Coordination (Selective)

Submitter : John Kowal, EE, FAE
Cooper Bussmann
John.kowal@cooperindustries.com
578 Autumn Cir.
Webster, NY 14580

Albert Cox EE, FAE
Cooper Bussmann
al.cox@cooperinductgries.com
297 Bayview Ave
Bayville, NJ 08721
Member: NYC Advisory Board

Present wording in Â§ 27-3025:

ARTICLE 100
Definitions

Coordination (Selective) Add a new sentence at the end of the definition of Coordination (Selective) to read as follows:

For the purposes of this code two overcurrent protective devices shall be deemed selectively coordinated if their respective time-current characteristic curves do not intersect at a time of 0.1 seconds (6 cycles on 60 Hz systems) or longer.

Background:

Selective coordination is mandatory in the 2008 National Electrical Code (NEC) only for systems supplying loads vital for life safety, public safety, or national security: Emergency Systems, 700.27; Legally Required Standby Systems, 701.18, Critical Operations Power Systems, 708.54; Healthcare Essential Electrical Systems; 517.26; and elevator feeder circuits 620.62. For instance, for emergency systems, the unnecessary, sudden loss of power that can occur due to a lack of selective coordination of overcurrent protective devices may jeopardize the emergency egress (evacuation) of people from a building during fires or other disasters. In the NEC, selective coordination is not mandatory for the general building system applications (Chapters 1 through 4 in the NEC).

Emergency systems supply loads in high rise buildings, arenas, theaters, and other buildings where people congregate. Typical loads can include exit lighting, pressurization systems for vertical stairways used for evacuations, fire alarm and building emergency notification systems, and emergency elevator operation. During emergencies and disasters, people's safety are dependent on these loads operating as intended for the longest time possible. If an electrical fault occurs, only the closest upstream overcurrent protective device should open, which results in only those loads on the faulted circuit being removed from operation (it is necessary due to the fault); this is a selectively coordinated system. However, if a system is permitted to lack selective coordination for some levels of fault current, a fault on a circuit will not only open the nearest upstream overcurrent protective device (as it should), but larger upstream overcurrent protective devices may unnecessarily open resulting in vital loads for life safety unnecessarily not performing as intended and required. In essence, peoples' lives may unnecessarily be jeopardized by improper engineering and installation. The 2008 NEC requires selective coordination of overcurrent protective devices for the full range of overcurrent for these vital systems, thereby increasing the reliability to maintain power to these vital loads during emergencies. The proposed amendment does not provide selective coordination of

overcurrent protective devices for the full range of overcurrents and could unnecessarily jeopardize life safety.

Critical Operation Power Systems (COPS) is a new designation for the 2008 NEC. Because of events such as 9/11 and Katrina, Homeland security approached NFPA and requested that the National Electrical Code develop requirements for systems designed as COPS. Thus NEC Article 708 was created. The Fine Print Note to NEC 708.1 provides insight to the nature of COPS. In part it reads: *"Critical operations power systems are generally installed in vital infrastructure facilities that, if destroyed or incapacitated, would disrupt national security, the economy, public health or safety; and where electrical infrastructure for continuity of operation has been deemed necessary by government authority."* 911 centers, rescue worker facilities, financial centers, and hospitals are examples of facilities that may have their electrical system, in whole or part, COPS compliant.

Reasons to not amend the 2008 NEC selective coordination requirements:

1. Adopting "times of 0.1 seconds or longer" for selective coordination of overcurrent protective devices for these circuits for supplying loads that are vital for life safety and public safety, is a **less restrictive requirement** than the National Electrical Code. The NEC requires the overcurrent protective devices to be selectively coordinated for the full range of overcurrents on these vital systems. Many jurisdictions do not permit amendments that result in less restrictive requirements than the NEC.
2. Amending the NEC selective coordination requirement to only being applicable for overcurrents that open overcurrent protective devices for times equal or greater than 0.1 seconds (6 cycles) will **permit** design and installation of systems that may unnecessarily cascade multiple levels of overcurrent protective devices for faults of any magnitude including low level faults. **This amendment would permit ignoring the instantaneous portion of circuit breakers or the current-limiting range of fuses when complying with selective coordination. It permits installations where overcurrent protective devices for these vital systems are selectively coordinated essentially only for overloads.** Under fault conditions, overcurrent protective devices will be permitted to unnecessarily cascade open which unnecessary blacks out vital life safety loads. The consequences affect the reliability of these vital systems and jeopardize life safety. The Annex of this document is a Comment submitted during the 2011 NEC process. This Comment is insightful about the less restrictive requirement of selective coordination for only times of 0.1 second and greater.
3. The NEC language and NEC Technical Committee statements have been clear that selective coordination is for the **full range of overcurrents** (this means for any overcurrent from light overload to bolted short-circuit current the overcurrent protective devices must be selectively coordinated. The proposed amendment for "times of 0.1 seconds or longer" is much less restrictive than the NEC requirement):
 - a. NEC definition and 700.27 requirement, work together:

Article 100 Definitions, Coordination (Selective).

"Localization of an overcurrent condition to restrict outages to the circuit or equipment affected, accomplished by the choice of overcurrent protective devices and their ratings or settings."

Article 700 Emergency Systems, 700.27 Coordination.

"Emergency system(s) overcurrent devices shall be selectively coordinated with all supply side overcurrent protective devices." ... (two exceptions)

- b. In 2008 NEC cycle, Panel 13 was clear by their panel statement in rejecting Proposal 13-135 concerning 700.27:

*"Panel Statement: ... **The instantaneous portion of the time-current curve is no less important than the long time portion.** Selective coordination is achievable with the equipment available now..."*

- c. In the 2011 NEC cycle, Panel 13 (entirely new panel membership from 2008) further clarified that the requirement is for the full range of overcurrents in Panel Statement to Proposal 13-198:

*"Panel Statement: **The existing text of 700.27 already requires selective coordination for the full range of overcurrents, from overloads through the available short-circuit current, with all upstream devices. ...**"*

4. The industry definition and practice for decades has been clear that selective coordination is for the full range of overcurrents on the system. Example:

IEEE Std 1015 2006 Blue Book, Chapter 5

Selective coordination of low-voltage circuit breakers with other protective devices

5.1 Introduction

"A selectively coordinated power system has protective devices that isolate the smallest portion of the system when interrupting a short-circuit or overload and thus limit damage to components. This result is accomplished with low-voltage circuit breakers by the selection of appropriate operating ratings, trip characteristics, and trip settings so that only the closest circuit breaker on the source side of an overcurrent condition clears the abnormality."

5. These same proposed amendments have been presented, discussed, and debated in NEC cycles 2005, 2008, and recently completed 2011. In the 2008 NEC cycle, Technical Panel 13 (700.27 and 701.18) considered proposed changes to lessen the selective requirement to 0.1 seconds or longer but made no change. In addition, for the 2008 NEC, the special, newly assembled panel of experts for Critical Operations Power Systems (COPS) (Panel 20) developed the new Article 708 and required selective coordination in 708.54. During the 2011 cycle, the 0.1 second selective coordination topic was again thoroughly vetted and all the requirements remain the same as in the 2008 NEC. It is important to note that there were proposals and/or comments during the recently completed ROP and ROC for the 2011 NEC cycle that suggested selective coordination for only times of 0.1 seconds or longer for 700.27, 701.18, and 708.54. In all cases, the NEC Technical Panel rejected changing the requirement to 0.1 seconds or longer. The Panels retained the requirement for the full range of overcurrents.

For instance, for 2011 NEC Cycle, Proposal 13-195 proposed selective coordination "for faults with a duration of 0.1 seconds and longer". This Proposal was rejected by a vote of 11-3, with the following panel statement:

“Panel Statement: The 0.1 second limit in this proposal could reduce the level of safety by limiting the types of overcurrents that would need to be isolated to the nearest upstream device. Requiring selective coordination down to only 0.1 seconds will cover only overloads and a few minor phase-to-phase and minor ground faults.”

Comment 13-136 requested acceptance of the original Proposal 13-195 which proposed selective coordination “for faults with a duration of 0.1 seconds and longer”. This Comment was rejected by a vote of 16-2, with the following panel statement:

“Panel Statement: This comment and associated proposal reduces the level of safety and is not needed because selective coordination for the full range of overcurrents is achievable. Selective coordination only “for faults with duration of 0.1 seconds and longer” permits installations where overcurrent protective devices would be coordinated for primarily overloads and a few low-level phase-phase and phase-ground faults. Arc flash hazards are not necessarily greater for selectively coordinated systems. For circuit breakers, there are circuit breaker options whereby selective coordination can be achieved without increased arc flash hazards, such as arc reduction maintenance switches and zone selective interlocking. In addition, there are other design options that can be used to achieve selective coordination and acceptable levels of incident energy.”

6. The mandatory selective coordination requirements (full range of overcurrents) have been in the NEC for several cycles now and the industry is making compliance easier with new products and better application materials:
 - a. Achievable with circuit breakers or fuses
 - b. CB to CB selective coordination tables
 - c. Commercial analysis programs with the CB-CB tables
 - d. Fuse selective coordination tables
 - e. New fusible branch circuit panelboards
 - f. Fixed high instantaneous trip molded case CBs
 - g. Molded case CBs with short-time delays up to 90X before the instantaneous trip activates
 - h. Transfer switches with short-circuit current ratings up to 30 cycles
7. Since selective coordination for the full range of overcurrents is achievable by engineers with standard, currently available equipment, to design with anything less than full selective coordination may subject the engineer and contractor to significantly increased liability, even if this jurisdiction abdicates its responsibility regarding this safety requirement. The NEC has mandatory requirements for selective coordination and industry standards as well as the NEC have clearly stated it is for the full range of overcurrents.
8. Often the opposition to the NEC selective coordination requirements use higher arc flash hazard as a reason not to retain selective coordination as a mandatory requirement. For the type circuits where selective coordination is mandatory, avoiding the unnecessary loss of vital power is a higher priority than arc flash hazards.
 - a. The sudden, unnecessary loss of power for vital loads may jeopardize life safety. However, if work is necessary on energized equipment, there is time to do an arc flash hazard analysis and wear the proper PPE.
 - b. When using circuit breakers with short-time delay settings, there are technologies available where the arc flash hazard can be mitigated to lower levels during

maintenance. The 2011 NEC has a new requirement for circuit breakers without an instantaneous trip:

240.87 Non-instantaneous Trip.

"Where a circuit breaker is utilized without an instantaneous trip, documentation shall be available to those authorized to design, install, operate or inspect the installation as to the location of the circuit breaker(s).

Where a circuit breaker is utilized without an instantaneous trip one of the following or approved equivalent means shall be provided:

(A) Zone-selective interlocking

(B) Differential relaying

(C) Energy-reducing maintenance switching with local status indicator..."

Annex: Information associated with previous point 2

Below is Comment 13-138 for the 2011 NEC ROC submitted by Malcolm Allison, representing the National Electrical Fuse Association. This Comment is insightful as to why selective coordination for only times of 0.1 seconds or longer is not appropriate. This comment was accepted by Code Panel 13 by a vote of 16 to 2.

2011 NEC Comment 13-138 on Proposal 13-198.

Continue to reject this proposal since the Panel Action and Panel Statement clarifies that the existing 700.27 text already requires selective coordination for the full range of overcurrents.

However, the following is in response to panel member C. Mouton's Comment "The 0.1 second limit discussed by some in the industry will not as indicated provide coordination for only 'overloads'".

By the nature of business, many systems are merely designed and installed to the minimum required by the Code. If the requirement for selective coordination were to be changed to only times greater than 0.1 second, then the effective result is that systems could be designed and installed per the Code and yet the coordination would essentially only be for overloads (some low level faults, too). Under fault conditions, with a requirement for only times greater than 0.1 second and designed to the minimum, then low level to high level faults could be permitted to cascade (trip or open) multiple levels of overcurrent protective devices(branch, feeder, and main). The result would be emergency loads being unnecessarily interrupted due to a lack of selective coordination even though compliant with a requirement for times only greater than 0.1 second.

To illustrate this, Graphs A and B depict the time-current curves of the same 30A, 200A, and 800A system.

Graph A shows no crossover or intersection of the circuit breaker curves above 0.1 second. If the requirement for selective coordination were for times only greater than 0.1 seconds, Graph A would be analyzed as evidence that these circuit breakers would comply.

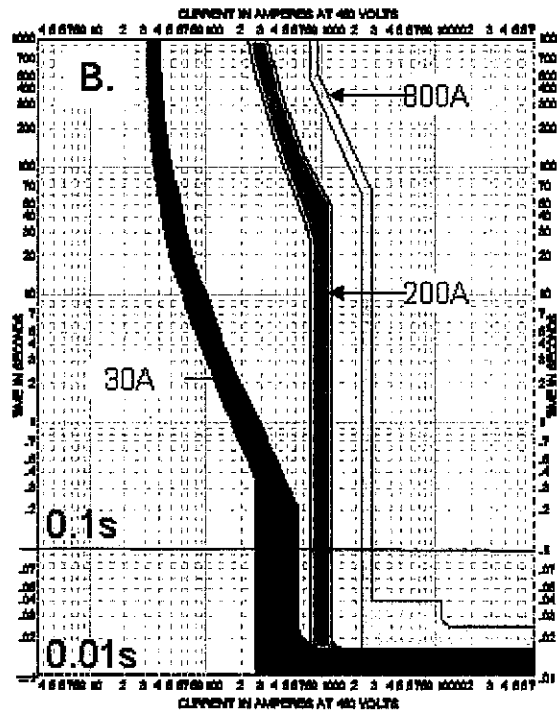
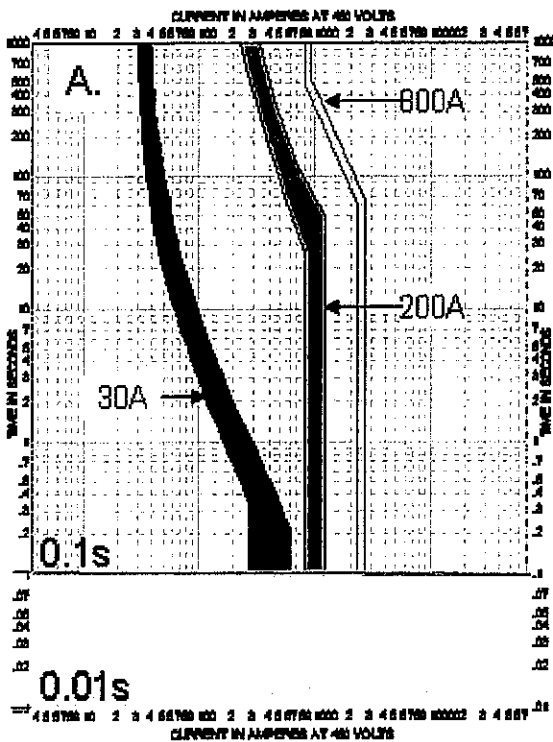
Graph B depicts the same circuit breaker curves but the analysis is for the full range of overcurrents as required by the present 700.27 text. Graph B shows the crossover of the circuit breakers in their instantaneous trip region. Unless other information is provided by the circuit breaker manufacturer, per industry practice including IEEE 1015-2006 "BLUE BOOK" *Applying Low-Voltage Circuit Breakers Used in Industrial and Commercial Power Systems*, page 145, 5.5.3, the cross over is interpreted as a lack of selective coordination for overcurrents at that overcurrent level and greater. An analysis of Graph B shows a lack of coordination between the 30A and 200A circuit breakers for ground, arcing, and any combination of phase faults as low as 800A or greater (that is 4x the 200A circuit breakers amp rating). Any type of fault as low as 2200A or greater on the 30A circuit can trip the 800A circuit breaker as well (that is 2 ¾ x the 800A circuit breakers amp rating). If the fault is on the 200A feeder circuit, any type fault current of 2200A or greater can trip the 800A circuit breaker, as

well (that is 2 ¼ x the 800A circuit breakers amp rating). These are low available fault currents easily achieved in almost every essential electrical system via a line-ground fault, line-line fault or three phase fault, arcing or bolted.

Is this a practical example? The curves were drawn using a commercial software package with commercial available circuit breakers having instantaneous trip settings on low. Typically, circuit breakers are shipped from the manufacturer with the instantaneous trip settings on low. Unless, the selective coordination analysis is for the full range of overcurrent available and unless the installer uses the proper settings, it is possible for low to high level faults to cascade multiple levels of overcurrent protective devices.

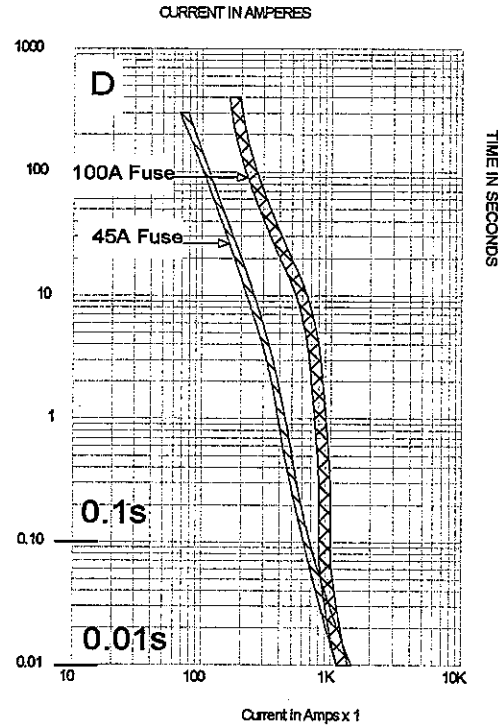
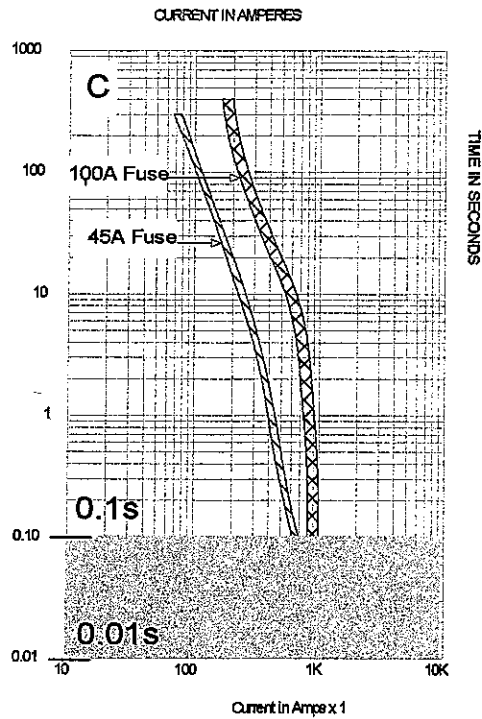
A) Shows the curves for times above 0.1 seconds. Only the breaker curves at 0.1 second and greater would be required to be selectively coordinated. This essentially requires coordination only for overload currents. Yet it would be a non selectively coordinated system for all fault currents, even low level faults (see Curve B and explanation)

B shows the same time-current curves as in A, but with the typical time axis of 0.01 sec. It shows the circuit breaker curves crossing, which means they are not selectively coordinated for currents above the cross over (800A and 2200A). These circuit breakers do not comply with the selective coordination requirement in NFPA 70, 700.27. Selective coordination is required for the full range of overcurrents, irrespective of the opening time of the protective device.



The same situation can occur if fuses are not chosen and installed properly. Graph C shows fuse time-current characteristics where the curves are evaluated for times only greater than 0.1 second. Graph D shows the same fuse curve, but below 0.1 seconds; obviously there is a lack of coordination for fault currents greater than where the fuses cross.

The other objection by some is that faults are never bolted except during installations due to wiring errors. Even if this were true, new equipment is never installed or rewiring is never done after the original installation?



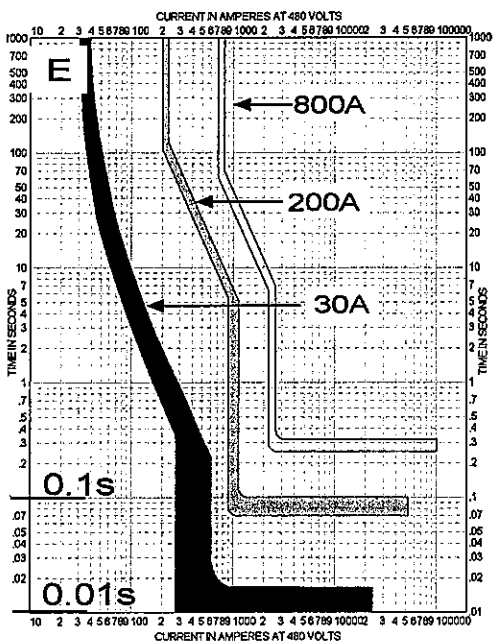
Fault currents, whether bolted or otherwise, vary widely from system to system as well as the point within a system. The table below provides the arcing fault currents versus bolted fault currents established from IEEE 1584 Guide for Arc-Flash Hazard Analysis. This illustrates that arcing fault currents are not necessarily low level. Also, these magnitudes of fault current are achieved without any delays or buildup over time; they are instantaneous. A panel with 10,000A available fault current is expected to have an arcing fault current of almost 7,000A. This level of fault current using Graphs B and D would cascade all the circuit breakers in the example and both fuses. However, if Graphs A and C would be used to evaluate the system for only times greater than 0.1 seconds, this would be OK. Yet when these faults occur, multiple levels of overcurrent protective devices would be permitted to cascade.

480V - MCC/Panel	
3 Phase Bolted Fault Current (kA)	Arcing Current (kA)
10	6.56
20	11.85
30	16.76
40	21.43
50	25.93

Another source for values of expected fault current is IEEE Std 241 Electrical Power Systems in Commercial Buildings section 9.2.4 which states "line-to-ground bolted fault current value is usually equal to the three-phase bolted fault current..." Section 9.3 shows that at 480V, the *minimum* arcing fault currents as a percent of the bolted fault current range from 38% to 89%.

There are means to achieve selective coordination for circuit breakers and fuses. Shown in Graph E is a time current curve where circuit breaker technology can provide selective coordination. To reduce the arc flash hazard, circuit breaker technologies exist such as zone selective interlocking and maintenance switches which switch a circuit breaker short-time delay setting to an instantaneous trip setting when maintenance is performed. For fuse systems, each fuse manufacturer provides tables of fuse type/amp rating selective coordination ratios that are applicable for any overcurrent up to 200kA or the fuse interrupting rating, whichever is lower.

Emergency systems are vital in times of emergency for life safety. Emergency can be times of fire, flooding, building failures, etc. With ionize gases, water incursion, or structure failures it can be expected to have faults and faults of possibly significant magnitude. Lives may be dependent on elevators, lighting, pressured stair wells, fire alarms, mass notification systems, fire pumps, etc. for safe evacuation or safe haven in another portion of the structure. Selective coordination for the full range of overcurrents is a necessary requirement that enhances the reliability of the electrical system and must be mandatory.



**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

in favor in opposition

Date: 9/21/10

(PLEASE PRINT)

Name: ANTHONY O. PERAZA

Address: 125 MADEN LANE

I represent: Solar Energy Industry Assoc.

Address: ALBANY, NY

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 604 Res. No. _____

in favor in opposition

Date: _____

(PLEASE PRINT)

Name: Chantal Senatus

Address: Assistant General Counsel

I represent: Dept of Buildings

Address: 280 Broadway

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 64 Res. No. _____

in favor in opposition

Date: 9/21/2010

(PLEASE PRINT)

Name: MOHAMMAD A. MOHAMMAD

Address: 7025 3rd Ave Brooklyn N.Y.

I represent: 5000 Elec Contractors Assoc

Address: 110-14 Jamaica Ave N.Y.

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 064 Res. No. _____

in favor in opposition

Date: 9/21/2010

(PLEASE PRINT)

Name: MOHAMMAD A. MOHAMMAD

Address: 7025 - 3rd AVE BR LYN N.Y.

I represent: Five Star Electrical Contr

Address: 7025 3rd AVE N.Y. 11230

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 064 Res. No. _____

in favor in opposition

Date: _____

(PLEASE PRINT)

Name: Angela Sung

Address: _____

I represent: Rebony

Address: 540 Lex Ave NY NY 10022

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

in favor in opposition

Date: _____

(PLEASE PRINT)

Name: PASQUALE PASCATORE

Address: 62-71- DRY HARBOR RD Middle Village

I represent: independent Electrical CONTR.

Address: 62-71- DRY HARBOR RD Middle Village

N.Y. 11379

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 74 Res. No. _____

in favor in opposition

Date: 9-21-10

(PLEASE PRINT)

Name: Christopher A. Rogan

Address: 830 3rd Ave Suite 920 NY NY 10022

I represent: Eaton Corp

Address: Abs

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 0064-20K Res. No. _____

in favor in opposition

Date: 9/21/10

(PLEASE PRINT)

Name: SERGE BUDZYN - ACEC-NY

Address: ACEC 60 EAST 42ND ST STE 1742

I represent: ACEC-NY

Address: _____

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 64 Res. No. 27-3025

in favor in opposition

Date: SEPT 21ST.

(PLEASE PRINT)

Name: John Kowal

Address: 578 Autumn Cir.

I represent: COOPER INDUSTRIES BUSSMAN DIV.

Address: 578 Autumn Cir WEBSTER, NY

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 64 Res. No. _____

in favor in opposition

Date: 9/21/2010

(PLEASE PRINT)

Name: Vincent Logozzo

Address: 849 70th STREET BROOKLYN NY 11224

I represent: FIVE BORO LICENSED ELECTRICAL CONTRACTORS

Address: 110-14 JAMAICA AVE, RICHMOND H.K. NY, ASSOC.

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 64 Res. No. 27-3025

in favor in opposition

Date: 9/21/10

(PLEASE PRINT)

Name: ALBERT F COX

Address: 297 BAYVIEW AVE BAYVILLE, NJ 08721

I represent: COOPER INDUSTRIES (BUSSMANN DIV)

Address: ELLISVILLE, MO

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 64 Res. No. _____

in favor in opposition

Date: 9/21/10

(PLEASE PRINT)

Name: RICK MILLER

Address: 726 ROUTE 202 S, BRIDGEWATER, NJ

I represent: ELECTRICAL MANUFACTURERS

Address: CONTACT POWER INC. (SEE ABOVE)

◆ Please complete this card and return to the Sergeant-at-Arms ◆

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 64 Res. No. _____

in favor in opposition

Date: 9/21/10

(PLEASE PRINT)

Name: Glen Neville

Address: 111 Medford Road

I represent: OWNERS/REAL ESTATE BOARD OF NY

Address: _____

go together

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 64 Res. No. _____

in favor in opposition

Date: 9/21/10

(PLEASE PRINT)

Name: SALVATORE ANELLI

Address: 160-21st STREET

I represent: NECA NY CHAPTER

Address: 1430 BROADWAY NY

go together

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 64 Res. No. _____

in favor in opposition

Date: Sept 21, 2010

(PLEASE PRINT)

Name: Richard Sabel

Address: 36-24 34th St. LIC NY 11106

I represent: New York Electrical Contractors Association

Address: 1430 Broadway, NY NY

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 64 Res. No. _____

in favor in opposition

Date: _____

(PLEASE PRINT)

Name: Jack Bunk

Address: Electrical Code Consultant

I represent: Dept of Buildings

Address: 280 Broadway

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 64 Res. No. _____

in favor in opposition

Date: _____

(PLEASE PRINT)

Name: FATMA AMER

Address: First Deputy Commissioner

I represent: Dept of Buildings

Address: 280 Broadway

Please complete this card and return to the Sergeant-at-Arms