



**METROPOLITAN AREA
BUILDING AND
CONSTRUCTION
DEPARTMENT**

MABCD CONSTRUCTION INDUSTRY NEWSLETTER

Issue 8 – January 2022

Chris Nordick - Editor

Get all of your latest MABCD news each month right here with the MABCD newsletter

Administration-



**MABCD Offices will be closed
and no inspections will be performed on
Monday January 17th in Observance of
Martin Luther King Jr.**

Trade certificate renewals continue -

Walk in Thursdays will continue through January 2022, **8:45 am – 4:30 pm.**
We will resume appointments only, after the last Thursday in January.

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Special points of interest

- Martin Luther King Holiday Closings.
- Trade certificate renewals continue.
- Ground Fault performance Testing.
- Arc Fault Energy Reduction..
- 2021 IMC Code adopted.
- 2021 UPC Code adopted.
- Advisory Board calendar.

Electrical Division-

Please visit our website for more information: [Electrical, Elevator, & Alarm Division](#)

Important enforcement of UBTC (Unified Building and Trades Code): Sections 4.2.037 (NEC Section 230.95(C) begins January 1, 2022

Sec. 4.2.037. – Ground Fault Protection of Equipment – Performance Testing.

Section 230.95(C) of the National Electrical Code (NEC) shall be amended to read as follows:

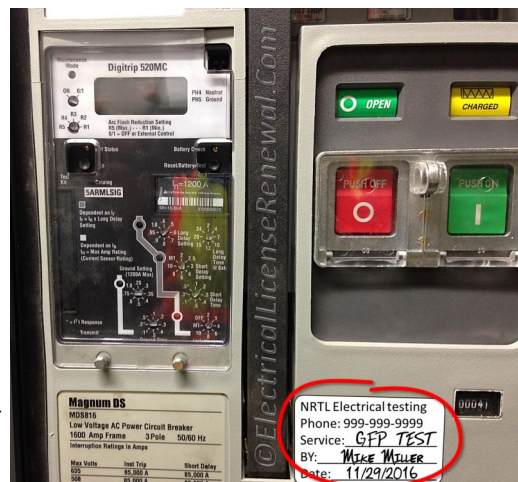
Effective January 1, 2022. The ground-fault protection system shall be performance tested when first installed on site. This testing shall be conducted by a qualified person(s) using a test process of primary current injection, in accordance with instructions that shall be provided with the equipment. A written record of this testing shall be made and shall be available to the authority having jurisdiction.

One of the most important performance tests for newly-installed electrical equipment is the testing of GFPE. Performance testing must be done after the system is installed but before it is energized.

Not all equipment contains a GFPE device. For each service disconnect rated 1000 amperes or more, section 230.95 requires GFPE in solidly grounded wye electric services of more than 150 volts to ground but not exceeding 1000 volts phase-to-phase. Similar language is found in 215.10 for feeder disconnects and 210.13 for branch circuit disconnects.

When GFPE is installed, section 230.95(C) requires specific performance testing to make sure the device is functioning as intended. Until now, the testing was only required to be done in accordance with the manufacturer's testing instructions and no additional details were provided. It is often thought that the push-to-test feature on the device is the proper way to comply with the test requirements in 230.95(C). Unfortunately, the push-to-test feature does not properly test all aspects of the GFPE device which is required in the initial commissioning of the switchgear.

For example, pressing a "push-to-test" button only initiates a test-current flow on a portion of the components, rather than all of the components that comprise the ground-fault system. It does not sufficiently test the wiring, the polarity, the current sensor primary windings, and several other critical aspects of the ground-fault protection system.



A primary current injection test must be done to test all other features of the GFPE that the push-to-test feature does not address.

The "primary injection test" documentation shall include:

1. Project Name:
2. Project Address:
3. Equipment/ Breaker Manufacturer's Name:
4. Testing Agency:
5. Date the test was completed:
6. Signature of the qualified person who performed the primary injection test.

Electrical Division-

Please visit our website for more information: [Electrical, Elevator, & Alarm Division](#)

Important enforcement of UBTC (Unified Building and Trades Code): Sections 4.2.038 (NEC Section 240.67(C) begins January 1, 2022

Sec. 4.2.038. – Arc Energy Reduction – Performance Testing.

Section 240.67(C) of the National Electrical Code (NEC) shall be amended to read as follows:

Effective January 1, 2022. The arc energy reduction protection system shall be performance tested by primary current injection testing or another approved method when first installed on site. This testing shall be conducted by a qualified person(s) in accordance with the manufacturers instructions. A written record of this testing shall be made and shall be available to the authority having jurisdiction.

240.67 Arc Energy Reduction. *Where fuses rated 1200 A or higher are installed, 240.67(A) and (B) shall apply. This requirement shall become effective January 1, 2020.*

(A) Documentation. *Documentation shall be available to those authorized to design, install, operate, or inspect the installation as to the location of the fuses.*

(B) Method to Reduce Clearing Time. *A fuse shall have a clearing time of 0.07 seconds or less at the available arcing current, or one of the following shall be provided:*

- (1) Differential relaying*
- (2) Energy-reducing maintenance switching with local status indicator*
- (3) Energy-reducing active arc flash mitigation system*
- (4) An approved equivalent means*



Placing electrical equipment into a safe working condition (de-energizing) is by far the best way to avoid electrical related injuries but there are instances where hot work is unavoidable.

The movement to reduce arc energy and protect workers servicing energized equipment is on. The 2014 NEC began raising awareness by the changes made in 240.87 pertaining to large frame circuit breakers. In the 2017 NEC, language was introduced that provides additional rules for large fuses.

Arc energy occurs during an arc-flash event. Arc-flash events only occur with energized equipment. Often, equipment is serviced or maintained while energized and the worker follows guidelines in NFPA 70E for proper work practices and ratings of required PPE in order to provide a level of safety while working on the live equipment.

The amount of potential arc energy is based on several factors, one of which is the fault duration or time the fault persists before an overcurrent device ahead of the faulted circuit opens to clear the fault condition. This new code section was put in place to ensure an extra measure of safety for the worker. Using one of the new methods to reduce potential arc energy ensures additional worker safety should a mishap occur triggering an arc flash event.

Mechanical (HVAC) Division-

Please visit our website for more information [Mechanical \(HVAC\) Division](#)

2021 IMC (International Mechanical Code) Adopted

The Board of County Commissioners adopted the 2021 IMC on November 10th 2021.

The Wichita City Council adopted the 2021 IMC on November 23rd 2021.

With the adoption of the 2021 IMC, the enforcement date begins January 1, 2022.

There are several significant changes to the 2021 IMC that the industry needs to be aware of, and over the next few months, we will post them here in the newsletter for your information. This month we will discuss the following:

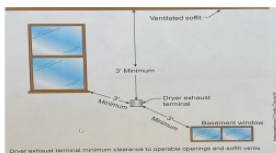
Dryer Exhaust Terminations

Dryer Exhaust Terminations

7

2021 IMC Section 504.4.1

New text was added to address the possibility of the dryer exhausted air being reintroduced into a building



Dryer exhaust terminations shall terminate not less than 3 feet in any direction from openings into buildings including openings in ventilated soffits.

To address the possibility of the dryer exhausted air from being reintroduced into a building,

Dryer exhaust terminations shall terminate not less than 3 ft in any direction from openings into buildings including openings in ventilated soffits.

Location of Exhaust Outlets—Combination Fittings

Location of Exhaust Outlets – Combination Fittings

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This code allows a combination exhaust/intake fitting to minimize the separation distance and allow only one exterior penetration.

This will create fewer penetrations through the roof or sides of a building.

Section 501.3.1 (3)

This change allows a combination exhaust/intake fitting to minimize the separation distance and allow only one exterior wall penetration.



Combination exhaust and intake air fitting

Fewer Penetrations through the roof or sides of a building is always a plus for the industry

Plumbing Division-

Please visit our website for more information [Plumbing Division](#)

2021 UPC (Uniform Plumbing Code) enforcement begins January 1, 2022

Happy New Year!

Please review the plumbing code amendments in Article 3 of the Unified Building & Trade Code.

<https://www.sedgwickcounty.org/mabcd/codes-resolutions-ordinances/>

The 2021 Uniform Plumbing Code may be purchased or viewed online.

<https://www.iapmo.org/publications/read-uniform-codes-online/>

Start accumulating code based continuing education hours for the next renewal cycle at this event:

The Kansas South Central IAPMO Chapter will be providing a free 2-hour 2021 UPC/MABCD amendments CEU training on January 25, 2022 from 5-7pm. Meeting location is PPATKS 1330 E 1st St N # 110, Wichita, KS 67214

Phone: [\(316\) 267-8508](tel:3162678508)



271 W. 3rd St. N., Suite 101 - Wichita, KS 67202 - www.sedgwickcounty.org - TEL: 316-660-1840 - FAX: 316-660-1810

Air Admittance Valve Application Form

- Fill out this application completely.
- Save the form.
- Upload the form on the "Attachments" step when applying for a permit on <https://mabcdportal.sedgwickcounty.org>

Applicant Name, Email & Phone*

Job Address*

Plan Review Number (Optional. Starts with PLR)

Permit Number (Starts with PLM or BLD if not a new application)*

Fixture(s) where an AAV is requested **(*required)**

Kitchen sink	Clothes washer	Bar sink	Salon sink	Bathroom group
Stool only	Tub / Shower	Other, please specify		

Are the fixture(s) draining into a sewage ejector sump? **(*required)**

Factors for consideration. Please check all that apply. (*required)

1. Where there are no full height walls that extend from the floor to the ceiling or roof.
2. Where the wall or walls potentially available cannot be altered for penetration due to the load bearing function of the wall.
3. Where structural elements such as trusses or beams are in place that cannot be altered for penetration by boring, cutting or notching.
4. Where HVAC duct is located such that code compliant slope cannot be achieved on the foot vent or drain piping to install a UPC code compliant island vent system.
5. Where piping would be exposed in such a manner as to detract from the aesthetic, harmonious or functional qualities of the space.
6. Where there is a habitable or finished space above the trapped fixture that is not being remodeled.
7. Where the fixture is in an island or pedestal configuration and one or more of site conditions number 1 through 6 apply.
8. Where remodeling an existing concrete slab on grade structure where there is insufficient depth of drainage piping to achieve code compliant slope of the foot vent.

All fields with an asterisk () are required to be completed to ensure a timely approval.*

MABCD Form #172 Rev 12/9/21

MABCD Advisory Boards - Calendar

- [Board of Building Code Standards and Appeals \(BCSA\)](#)
- [Board of Electrical Appeals \(BEA\)](#)
- [Board of Appeals of Refrigeration, Air Conditioning, Warm Air Heating, and Boiler](#)
- [Board of Appeals of Plumbers and Gas Fitters](#)

January 2022						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3 <i>MABCD BCS&A Board Meeting</i>	4	5	6 <i>MABCD Mechanical Board Meeting</i>	7	8
9	10	11 <i>MABCD Electrical Board Meeting</i>	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26 <i>MABCD Plumbing Board Meeting</i>	27	28	29
30	31					

Director's Desk-



[Chris W. Labrum](#)

Director

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