



MABCD CONSTRUCTION INDUSTRY NEWSLETTER

Issue 18– November 2022

<https://www.sedgewickcounty.org/mabcd/mabcd-newsletter/>

Chris Nordick - Editor

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

Administration-

HOLIDAY REMINDER

MABCD Offices will be closed the following days:

Friday November 11th in observance of Veterans Day.



Thursday November 24th and 25th for Thanksgiving.



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Special points of interest

- Holidays
- Proper Installation of NM Cable.
- Duct Joints and Seams
- Plumbing Board Open Position.
- WFD Carbon Monoxide.
- Advisory Board calendar.

Building Division-

Please visit our website for more information

[Building Division](#)

FINAL OCCUPANCY HOT WATER REQUIREMENTS

Due to recent issues in providing Final Certificates of Occupancy for residences concerning hot water requirements, a quick review of the most common guidelines which have been overlooked are being offered.

Hot water must be present at all required plumbing fixtures before a Certificate of Occupancy can be issued. The IRC lists these locations, and further requirements to protect the future occupants, in the following code references.

IRC R306.4 Water supply to fixtures. Plumbing fixtures shall be connected to an approved water supply. Kitchen sinks, lavatories, bathtubs, showers, bidets, laundry tubs and washing machine outlets shall be provided with hot and cold water.

IRC P2722.2 Hot water. Fixture fittings supplied with both hot and cold water shall be installed and adjusted so that the left hand side of the water temperature control represents the flow of hot water when facing the outlet.

Exception: Shower and tub/shower mixing valves where the water temperature control corresponds to the markings on the device.

IRC P2713.3 Bathtub and whirlpool bathtub valves. Hot water supplied to bathtubs and whirlpool bathtubs shall be limited to a temperature of not greater than 120 degrees F (49 degrees C) by a water temperature limiting device except where such protection is otherwise provided by a combination tub/shower valve in accordance with Section P2708.4.



All of these requirements should be met before requesting a Final Occupancy inspection.

Electrical Division-

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

Proper Methods and Materials for NM cable

Section 334.30 - Securing and Supporting-

Over the past few months we have seen an increase in improperly installed NM cable connectors and securing means. Each type of connector is listed to be installed in a very specific manner, proper installation methods are essential when securing and supporting NM cable.



334.30 Securing and Supporting.

Nonmetallic-sheathed cable shall be supported and secured by staples; cable ties **listed and identified** for securement and support; or straps, hangers, or similar fittings designed and installed so as not to damage the cable, at intervals not exceeding 1.4 m (4¹/₂ ft) and within 300 mm (12 in.) of every cable entry into enclosures such as outlet boxes, junction boxes, cabinets, or fittings. Flat cables shall not be stapled on edge.

Sections of cable protected from physical damage by raceway shall not be required to be secured within the raceway.

(A) Horizontal Runs Through Holes and Notches. In other than vertical runs, cables installed in accordance with [300.4](#) shall be considered to be supported and secured where such support does not exceed 1.4-m (4¹/₂-ft) intervals and the nonmetallic-sheathed cable is securely fastened in place by an approved means within 300 mm (12 in.) of each box, cabinet, conduit body, or other nonmetallic-sheathed cable termination.



Informational Note: See 314.17(C) for support where nonmetallic boxes are used.



B) Unsupported Cables. Nonmetallic-sheathed cable shall be permitted to be unsupported where the cable:

(1) Is fished between access points through concealed spaces in finished buildings or structures and supporting is impracticable.

(2) Is not more than 1.4 m (4¹/₂ ft) from the last point of cable support to the point of connection to a luminaire or other piece of electrical equipment and the cable and point of connection are within an accessible ceiling in one-, two-, or multifamily dwellings.



(C) Wiring Device Without a Separate Outlet Box. A wiring device identified for the use, without a separate outlet box, and incorporating an integral cable clamp shall be permitted where the cable is secured in place at intervals not exceeding 1.4 m (4¹/₂ ft) and within 300 mm (12 in.) from the wiring device wall opening, and there shall be at least a 300 mm (12 in.) loop of unbroken cable or 150 mm (6 in.) of a cable end available on the interior side of the finished wall to permit replacement.

Mechanical (HVAC) Division-

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

UBTC Section 5.4.150 - Joints and Seams.

Code Fact:

Per local amendment it is required to seal joints/seams on ductwork that is installed outside of the conditioned envelope before being insulated.

*This requires an inspection prior to the ductwork being insulated and once after the insulation has been completed.



Sec. 5.4.150. - Joints and Seams.

All joints and seams of that portion of supply and/or return ductwork installed outside of the conditioned envelope shall be made substantially airtight by means of tapes, mastics, gaskets, and other approved closure systems, commercially available and specially designed for sealing. "Duct Tape" shall not be an acceptable method. Closure systems used with rigid fibrous glass ducts shall comply with UL 181A and shall be marked "181A-P" for pressure-sensitive tape, "181 A-M" for mastic or "181 A-H" for heat-sensitive tape. Closure systems used with flexible air ducts and flexible air connectors shall comply with UL 181B and shall be marked "181B-FX" for pressure-sensitive tape or "181B-M" for mastic. Duct connections to flanges of air distribution system equipment or sheet metal fittings shall be mechanically fastened. Mechanical fasteners for use with flexible nonmetallic air ducts shall comply with UL 181B and shall be marked 181B-C. Crimp joints for round metal ducts shall have a contact lap of at least 1½ inches (38 mm) and shall be mechanically fastened by means of at least three (3) sheet-metal screws or rivets equally spaced around the joint.



Exception: Low pressure systems.

Plumbing Division-

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

Open Board Position - Appeals Board of Plumbers and Gas Fitters

There is an open position on the Appeals Board for Plumbers and Gas Fitters.

- (1) One Mechanical Contractor whose experience and training is specific to, but not limited to, mechanical contracting. (City Appointment)

The applicant should possess a Master Mechanical certification and be available to participate in monthly meetings on the last Wednesday of every month for the two year term of appointment. Applications may be submitted by using the link below. Please contact me if you have an interest in this position and think you may fit the position description.

[OnBoard2 | City of Wichita KS](#)

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Wichita Fire Department-

Carbon Monoxide - Part 1 of 3

Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless, and toxic gas, which is predominantly produced by incomplete combustion of carbon-containing materials. Incomplete combustion occurs when insufficient oxygen is used in the fuel (hydrocarbon) burning process. Consequently, more carbon monoxide, in preference to carbon dioxide, is emitted. Some examples of this are the following: vehicle exhausts, fuel burning furnaces, coal burning power plants, small gasoline engines, portable gasoline-powered generators, power washers, fireplaces, charcoal grills, marine engines, forklifts, propane-powered heaters, gas water heaters, and kerosene heaters.



How CO Works

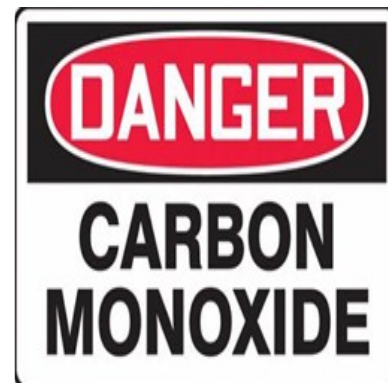
Carbon monoxide has a powerful ability to affect cell metabolism, as it can cause reactions that deprive cells of oxygen.

This comes from the capacity of carbon monoxide to bind strongly to heme, an iron compound in [hemoglobin](#), which carries oxygen to the tissues of the body. This bonding can change the function of the heme proteins. Carbon monoxide's affinity to bind with hemoglobin is more than 200 times greater than that of oxygen for hemoglobin.

When carbon monoxide bonds with heme, it forms carboxyhemoglobin (COHb) and decreases the oxygen-carrying capacity of the blood. It also disrupts the release of oxygen already attached to the hemoglobin, so it can't be released into tissues.

Another way carbon monoxide disrupts the body's systems is by diminishing the oxygen storage in muscle cells by binding to and displacing oxygen from myoglobin.

All areas of the body suffer from this toxicity, but the most vulnerable tissues to this suffocation are the organs that use the most oxygen, like the brain and heart. The nervous system is particularly sensitive to carbon monoxide. People with ongoing cardiovascular or respiratory disease may also be compromised and unable to fight off the effects of carbon monoxide.



Wichita Fire Department-

Carbon Monoxide - Part 2 of 3

Beware of Fuel-Fired Equipment and Tools

Especially on projects where the electrical wiring has not yet been done, portable generators are a necessity. However, they can also pose a serious concern. This ultimately comes down to poor ventilation.

The same goes for space heaters, gas-powered equipment (such as wet saws), and water pumps. To prevent CO poisoning from gas-powered equipment and generators, workers should:

- Never use these in enclosed spaces, such as basements, or areas where there is little to no ventilation. Windows and doors should always be left open when using these materials.

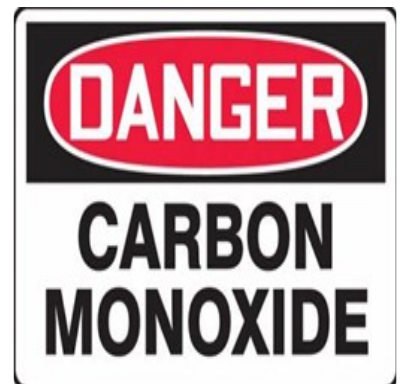


Be Properly Equipped

Construction managers should always ensure the installation of effective ventilation systems on the construction site. For this reason, quality assurance is absolutely essential. Industrial-sized fans should be placed in areas where openings to the outdoors aren't as readily available.

Furthermore, gas-powered equipment should be swapped out for battery or electric powered equipment. Gas-powered saws (used for carving out openings in walls or other surfaces) should be replaced by hydraulic or pneumatic concrete saws.

Workers should also be equipped with multi-gas monitors. These small monitors clip onto work belts and are highly portable. They detect poisonous gases in the environment and alert workers to their presence.



Wichita Fire Department-

Carbon Monoxide - Part 3 of 3

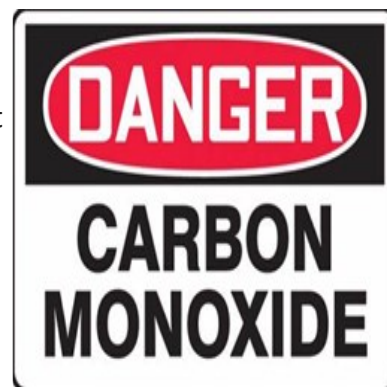
Know How to Respond

Construction employees should be trained to deal with instances of carbon monoxide poisoning. If workers notice themselves getting light-headed while working amongst these kinds of tools, they should immediately relocate to a well-ventilated area.

Similarly, they should learn to spot the signs of CO poisoning in fellow workers. These include lightheadedness, dizziness, vomiting, or shortness of breath. If they hear these complaints from fellow workers or notice them becoming lethargic, they should call 911 right away.

Additionally, they should move that individual to a ventilated area and apply a tight-fitting mask to reinstate their oxygen supply. If they have knowledge of CPR, it should be administered.

Construction workers are privy to the many deadly hazards around them, from steep grades to heavy machinery. However, carbon monoxide is perhaps the most dangerous because it is the most discrete. Workers should be familiar with OSHA's standards and solutions for carbon monoxide poisoning.



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](#)

November 2022

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

Directors Desk -



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