

THE MECHANICAL INSPECTOR

TECHNICAL TOPICS MAY 2009

Maintain
Improve
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Monitor



MMIA, Inc.

Better Enforcement
Today
for a Safer
Tomorrow

THE MECHANICAL INSPECTOR

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Ask the Committee:

Send your questions about Mechanical Code enforcement to the Education Committee for discussion and research. As space permits, they will be answered in this Newsletter. The address is:

Inform the Committee:

These articles are directed to membership participation. We welcome you to please submit your comments and answers.

REMINDER

Publishing deadlines are as follows:

Jan 1 deadline for Jan 15 mailing

May 1 deadline for May 15 mailing

Aug 1 deadline for Aug 15 mailing

Anyone is welcome to submit articles, but the Education committee will decide publishing priority.

Dear Membership,

Please enjoy this issue on TECHNICAL TOPICS. We hope you will find this informative. If you have a topic you would like more information on please contact us.



Is public Act 377 of 2008 Enforceable?

Public act 377 of 2008 effective March 23, 2009 requires at the time "of initial construction of a single-family dwelling or a multi-family dwelling, or at the time of renovation of any existing single-family dwelling in which a permit is required, or upon the addition or creation of a bedroom, the installation of at least one operational and approved carbon monoxide device within the single-family dwelling or within each unit of the multifamily dwelling." Is this public act is enforceable?

The answer is no. Rules have not been promulgated concerning this act by Bureau of Construction Codes. This act is written in what some people might contend to be poor code language, and the requirements are vague. This act has the word "may" in it more than a bunch of children playing the game "Mother May I". The Bureau is probably going to wait for the adoption of the 2009 Michigan Residential which has language concerning the requirements of Carbon Monoxide detectors in the third chapter of the code, which I think would be a wiser decision.

So for now this writer believes that carbon monoxide detectors are put on hold for at least one or more years.

Mark Riley
Troy

TECHNICAL TOPICS



I.C.C. Code Development is streamlined to reduce costs and be more member friendly

The International Code Council directors have revised the code hearing process. This revision has been a result of years of input from its members and industry. In the previous three-year code change cycle, there were two 18-month code-hearing processes with two initial code hearings and two final action hearings. The new code process will have one initial code hearing and one final action hearing per three-year cycle. Now for the changes for the upcoming 2012 codes will only have one code hearings for each code group. Here is the list for each code group:

Group A	Group B
International Building Code — Egress	International Energy Conservation Code
International Building Code — Fire Safety	International Residential Code — Building/Energy
International Building Code — General	All Codes — Administration (Ch. 1)
International Building Code — Structural	International Existing Building Code
International Fuel Gas Code	International Fire Codes
International Mechanical Code	I Performance
International Plumbing Code	International Property Maintenance Code
International Private Sewage Disposal Code	International Residential Plumbing & Mechanical Code
	IRC Mechanical/Plumbing
	International Wild land Urban Interface Code
	International Zoning Code

The initial code hearings for both groups will be in the fall of 2009 with two tracts of hearings running simultaneously as before. The final action code hearings for group “A” will heard in the spring of 2010 and group “B” final hearings will be heard in the fall of 2010. This whole process will only happen once in a transitional period. Starting in the year of 2012 Group “A” will have its initial code hearings in the spring of 2012 and the final code action hearing in the fall of 2012, while group “B” will have its initial hearings in the spring of 2013 and the final hearing in the fall of 2013.

This change will reduce the need for Supplement for the international codes. This also will only give a proponent to make a code change one chance in a given three year cycle.

If this seems confusing try going to PowerPoint presentation at:

http://www.iccsafe.org/cs/codes/pdf/Plan_Reforming_ICC_Public_Hearing_Process.pdf

It might explain it better.

Mark Riley, Troy

TECHNICAL TOPICS

Lynn Briggs—Legislative Consultant

MECHANICAL INSPECTORS ASSOCIATION OF MICHIGAN METROPOLITAN MECHANICAL INSPECTORS ASSOCIATION Legislative Report April 2009

Several bills have been introduced in the Michigan Legislature to amend the Stille-DeRossett-Hale Single State Construction Code Act (Public Act 230 of 1972 as amended):

House Bill No. 4056 introduced by Representative Valentine on January 22, 2009 would provide that “If plans submitted with an application are certified at any level by LEED, the application shall be granted, in whole or part, or denied within 5 business days. As used in this section, “LEED” means the leadership in environmental design rating system developed by the United States Green Building Council.” The bill is the House Committee on Energy and Technology.

House Bill No. 4566 introduced by Representative Opsommer on March 12, 2009 provides that: “An enforcing agency determination that an application for a building permit or waiver or a test conducted under this act conforms to applicable laws does not include any determination of the existence of a certification regarding wetlands unless the enforcing agency is responsible under law for such determination or certification. A building permit or other document issued by an enforcing agency shall, if applicable, contain a conspicuous disclaimer regarding the lack of any final determination of the existence or certification regarding wetlands.” The bill is in the House Committee on Regulatory Reform.

House Bill No. 4575 introduced by Representative Ebli on March 12, 2009 provides that: “A governmental subdivision may adopt its own code consisting of the National Green Building Standard, ICC-700, published by the International Code Council or the current version of Leadership in Energy and Environmental Design (LEED) Green Building Rating System at a specified level. The adoption shall be executed by an ordinance duly adopted by the governmental subdivision and submitted to the Director.” The bill is in the House Committee on Regulatory Reform.

House Bill No. 4756 introduced by Representative Warren on April 1, 2009 provides that: “Beginning the code cycle after the effective date of the amendatory act that added this subsection, the Director shall adopt as the code those codes described in subsection (2), the current version of the International Energy Conservation Code for Residential Buildings, and a commercial building code that meets or exceeds the ANSI/ASHRAE/IEISNA Standard, 90.1-2007. Those rules shall also included a plan for governmental subdivisions to achieve compliance with the standards described in this subsection within 8 years after the effective date of the amendatory act that added this subsection in at least 90% of new and renovated residential and commercial space. The plan shall also include components of training, enforcement, and compliance measurement.” The bill is in the House Committee on Energy and Technology.

TECHNICAL TOPICS

JOE OTIS NFPA LAISON



COST OF HOME FIRE SPRINKLER SYSTEMS

Several hundred U.S. communities have adopted home fire sprinkler ordinances for single-family dwellings. These systems provide significant life-Safety benefits, but the cost of installing them remains a point of uncertainty and, as such, a potential barrier to broader adoption. Informal estimates of typical installation costs can vary widely and influence whether a decision-maker thinks installing sprinklers in a new home is viable.

The Fire Protection Research Foundation sponsored a study that looks at the installation costs for 30 homes across the United States and one in Canada, providing a national perspective on the cost of home fire sprinklers. It also explores the range of insurance premium discounts available to homeowners with sprinkler systems in their homes.

Average cost of sprinklers

The communities chosen offer diversity in terms of sprinkler ordinance status, geographic location, housing style, and sprinkler system variables, such as the type of piping material and water supply source. For each of these communities, three building plans were collected from builders and sprinkler installers, along with sprinkler system cost data and other related cost and system information.

The term “sprinklered square feet” (sprinklered SF) reflects the total area of sprinklered spaces, including basements, garages, attics when applicable. In terms of absolute costs, the total sprinkler systems costs to the home builder ranged from \$2,386 to \$16,061 for the 30 houses.

The cost of sprinkler systems to the home builder, in dollars per sprinklered SF, ranged from \$0.38 to \$3.66, with the average cost being \$1.61 per sprinklered SF. The home at the low end of this range is a California house in a community with a long standing ordinance, sprinklers in the attic and garage, and some potential pricing benefits from a volume relationship with the sprinkler contractor. The house at the high end of the range is a Colorado home on well water with a system constructed with copper piping, which uses antifreeze protection during the winter.

These results include all the costs to the builder associated with the sprinkler system, including design, installation, and other costs such as permits, additional equipment, and increased tap and water meters fees to the extent that they apply. When accounting for any available credits given for the use of residential sprinklers, the total sprinkler system costs to the builder averaged \$1.49 per sprinklered SF.

Joe Otis
NFPA Journal

EDUCATION AND EMPLOYMENT UPDATES

MECHANICAL INSPECTOR REGISTRATION REQUIREMENTS

September 17, 2006 Thru September 16, 2009 PROVIDED BY END OF CYCLE

REQUIRED CREDIT HOURS	MIAM (05-02-09)	MMIA (06-18-09)
Administration	4	8
Technical	24	37
Communication	1	2
Specialty	18	34
Plan Review	12	14
Total	59	95

METROPOLITAN MECHANICAL INSPECTORS SEMINAR SCHEDULE THROUGH THE END OF THE 06-09 CYCLE

Sep 18 08	Commerical Kitchen Plan Review	3 Cr PR	Mark Riley
Oct 16 08	Mech PR Comm. & Industrial Appl.	4 Cr PR	Bill Moy
Dec 11 08	ICC Bldg Off Guide/Write Violations	2 Cr C,A	Mark Riley
Jan 15 09	Important Safety Changes Fire Wrap	3 Cr TECH	J. Miller
Mar 19 09	Gas Pipe Manufacture Std Practices	3 Cr SP	Randy Pagel
May 21 09	Code Updates	4 Cr TECH	T. Barry
Jun 18 09	Wet Geothermal	3 Cr SP	V. Pappas

MECHANICAL INSPECTORS ASSOCIATION MICHIGAN

NEW CYCLE 2009-2012

FALL PROPOSED SEMINAR SCHEDULE

OCT 1- 3, 2009

CRYSTAL MOUNTAIN, THOMPSONVILLE, MI

2 CR SPEC	CSST GAS PIPING INSTALLATION & BONDING
1 CR TECH	FIRE WRAPS WITH UPDATES
4 CR TECH	DIFFICULT PEOPLE
2 CR COMM	SPLIT SYSTEMS
2 CR TECH	SOLAR PRODUCTS
2 CR SPEC	CODE STUDY RESIDENT & COMMERCIAL

CIT Certified Inspectors Training

Schedule Hotel Doherty, Clare

June 1-4, 2009: Plumbing (1st), Mechanical (2nd), Building (3rd), Electrical (4th)

January 11-14, 2010

Questions: Curtis Stowe 248-624-0570 (office) , 586-436-0450 (cell phone) [Email: ces95@fastmail.fm](mailto:ces95@fastmail.fm)

www.certifiedinspectorstraining.com

West MI Mechanical Inspector Association

Meets at the Zeeland Township Hall, 6582 Byron Rd, every 2nd Thursday each month at 12:45 pm. The Association has a business meeting, followed by a seminar.

WMMIA Contacts: Paul Schaut:
pschaut@ci.grand-rapids.mi.us

NEED A SUB? Are you going on vacation? Planning to take time off your job? Too much work and not enough staff? Check this listing for a substitute inspector to give you a hand when you're not in the office or over worked. The following people may be available to sub for you: **Ed Barnes 248-224-3357, Gary Barger 248-601-1757, Ed Durbin 586-739-1600, Bill Karas 810-650-8183, Bill Myers 248-348-5830, and Dan Roy 586-294-1716 or cell 586-214-3769.** If you would like to be added to this list, please call the Association offices at 248-649-5443.

TECHNICAL TOPICS

Code Questions and Answers — Tennison Barry

How are we applying the gas pressure test on 10' of pipe to so many fittings? **MMC-106.2 (j) indicates that no permit is required when changing or relocating a regulator or meter and installing no more than 10 of gas piping and up to 6 fittings.**

Can you have a 24x24 metal duct taking RA from 1st and second floor using the common return method for each floor? **Yes as long as the duct is located in a area that is open from the floor of the 1st level to the ceiling of the second level.**

Where **Kitchen Welded Duct** penetrates the roof. Why would the duct have to be fire wrapped all the way down the hood if 18" above roof and below should be more than enough? Note: The remainder of duct is 3" from limited combustibles. **All fire wrap has been tested and approved for installation from the top of the hood to the duct outlet.**

Proper installation on trac pipe. **All CSST piping must be installed in accordance to it's instructions.**

What can we do when a jurisdiction refuses to understand the requirements for plan review and inspection for suppression systems per 2006 MMC? **You can go to your supervisor and inform them that the law clearly includes suppression as being mechanical and therefore requires a mechanical license to install and a mechanical inspector to inspect.**

Where is or does it state that kitchen exhaust with large CFM rates are required to be made up in a residential R-3 dwelling? **The code does not, however, when an inspection is performed the inspector must verify that when that fan is on it does not adversely affect any other appliance or equipment.**

In a residential home with Geothermal heating system installed, are there any requirements for auxillary heat such as fireplace or gas furnace backup (secondary to Geosystem)? **No, the code requires that the equipment installed be sized to heat the home without any auxiliary heat.**

Who is going to control permits and inspections for solar and wind units? Under what part of code? **That will depend on what kind of solar is installed.**

Should the garage wall between the home garage be considered a "rated assembly" (fire) and thus unducted return air passages not allowed? **No.**

How do you meet the code for fresh/ventilation air in a commercial building retrofit with split A/C (Mitsubishi)? **The contractor would not be required to meet the ventilation requirements in this case.**

Gas Piping through condos? **MMC Section 404.1 of the IFGC addresses this issue for town-houses only.**

TECHNICAL TOPICS

Con't Code Questions and Answers — Tennison Barry

Does the R-8 insulation requirement for ducts in exterior walls (MRC 2006) apply for residential fire repairs where some or all interior walls have been stripped of drywall and the existing wall stacks in exterior walls are replaced? **MMC- 1601.3.4 (4) requires all portions of the duct being installed to be insulated. It does not exempt duct being installed as part of a fire repair.**

Do underground ducts need to be insulated? **I do not find any requirement for underground ducts to be insulated.**

Why as an inspector we do not have to inspect gas pipe test in residential? **I do not find any section of the residential code that requires an inspector to witness the pressure test.**

When you have a two-story building above a portion of the 1st floor, does the roof ladder to access the HVAC equipment on the roof on the 2nd story have to go all the way to the ground or only to the roof of the 1st floor portion of the building? **MMC Section 306.5 requires that when access exceeding 16 feet is required you must have a permanent means of access. That access is from that point regardless if it is from the ground or 2nd story.**

Can you increase the size of the clothes dryer exhaust duct when the length of the exhaust system exceeds 25 feet? **No.**

Is unprotected galvanized sheet metal ductwork for the heating and air-conditioning system allowed in the room that encloses a pool or spa? **The fact that the ductwork is galvanized means that it is protected.**

Is a commercial cooking hood & exhaust system required above a "Thermo-Chef" type oven that cooks food with convection & micro-wave heating? **Yes. Section 507.2.2 requires a type II hood over this equipment unless it is used for re-heating previously cooked foods.**

Is a 30-inch clear working space required in front of HVAC equipment service panels when the equipment is located on the roof? **Yes.**

Is permanent access required for HVAC equipment located on the roof of the 2nd floor of single family dwellings? **Yes.**

Are companies that only clean ductwork, required to have a mechanical contractors license? If yes, should they obtain mechanical permits when they clean ductwork? **It depends on how they are cleaning the duct. If they clean the duct through the warm air vent openings, no permit is required.**

Why doesn't the State of Michigan Mechanical Bureau issue a new mechanical contractor's license when a contractor moves to a new location? **All municipalities register contractors. We will not have the correct address for the contractor unless the state issues a new license with the new business address.**

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