

Indiana Mechanical Code Committee Meeting Minutes
Plainfield Guilford Township Public Library
August 15, 2012

Attendees:

Cecilia Ernstes-Boxell, Chairperson	cernstes@dhs.in.gov
James Asel	
Dan Bates	
Steve Bartrom (alternate Adam Holman)	sbartrom@indy.gov
T.J. Burns	tj.burns@indy.gov
J. Michael Carson	jmcarson@purdue.edu
Darrell Cross	dcross@noblesville.in.us
David Donahue	dcdconsultingllc@gmail.com
Dave Kelly	
Mike Koppes	
Kim Mann	
Duane A. Mowrey	mowrey_duane_a@lilly.com
John Shimer	jshimer@indianapropane.com

Summary

Meeting called to order and opened with Roll Call. A quorum of the voting member's was present.

2. Minutes:

Dan Bates made a motion to accept the minutes as presented and John Shimer seconded the motion. Motion to accept the minutes as presented was approved.

3. Tabled proposals:

a. Code Change Proposal 11-1:

Duane Mowery presented code change proposal on Section 1106.5.1; Refrigerant system emergency shutoff, a provision was added regarding vapor recovery. It was not good to rely on one detector to take down an entire industrial facility.

(Dan) if the intention was to delete the requirement from the new code.

(Duane) the intent was to only delete the automatic portion of the section.

Darrell confirmed that the proposal was only to delete the automatic shut-off portion.

(Duane) yes and that is why the language "or other approved manner" was added, was to allow someone to use an automatic system.

(Darrell) this code section comes from the fire code and asked if the same proposal will be made for the Fire Code.

(Duane) the same code change proposal will be submitted to the Fire Code Committee.

(T.J.) stated the language in the IMC is identical to the IFC section 606.9.

(John Shimer) these are detection systems not analyzers and how are the sensors made.

T. J. informed the proposal deletes the LEL, which is an ascertainable standard.

Cecilia affirmed.

(Darrell) is there any other monitoring system elsewhere in the code?

Duane informed ASHRAE did require an LEL and ASHRAE used 25% LEL.

Darrell wants to make sure the system was monitored in some way so there would be notification, if levels got too high.

Dan Bates made a motion to deny the proposed code change. No one seconded the motion.

(Cecilia) without a second the proposed code change is not accepted.

T.J. suggested that Duane submit the change to the Fire Code Committee.

b. Proposed Code Change 11-2:

Duane Mowery, proponent of the proposed code change to Section 1106.5.2; Ventilation system, withdrew the proposed code change.

c. Proposed Code Change 5-3:

Mike Koppes presented the proposed code change to Section 502.8.1.1(4); System Requirement. It makes no sense to shut down a hazardous fume hood with an emergency shut off switch. Further, NFPA 91 does not require a manual shut off. Design of hazardous ventilation is figured on the proper dilution value for what is being done under the hood. The dilution ventilation keeps the hazard in the fume hood below the 25% LEL. NFPA 91 is a standard that Exhaust Systems for Air Conveying of Vapors, Gases, Mists and Noncombustible Particulate Solids is the design criteria addressed in this section. NFPA 91 gives criteria on these systems and the first thing is that these systems are not shut off. NFPA 91 outlines exceptions for the design of the system. NFPA 91 states where shut down is necessary for the affected operation of an automatic fire extinguishing system it (the ventilation system) shall be permitted by interlock back into the protection system. Document risk analysis acceptable to the authority having jurisdiction. Risk of the fire or damage is greater from the products of combustion are higher it shall be required to be tied back into an interlock system. The biggest concern is that shutting the system down is generally not what you want to do. It would be far worse to kill the system at the emergency shut off switch then to leave the system run.

(Darrell) during the previous discussion it was mentioned that the manual shut off outside of room or other approved location, which they had discussed as being on the fire alarm panel.

A discussion took place on the definition of “approved” as defined by Indiana.

Mike cannot think when you’d want to shut down the ventilation system for the building; it can impact other systems in the building. Manifold exhaust system, 99.9% of the time what is going up the hood may not be hazardous.

A lengthy discussion took place regarding the design and functionality of fume hood ventilation systems.

Discussion took place regarding the current Mechanical code amendments and the “chase” amendments, which included a discussion on the public hearing process.

(John Shimer) the installation of a switch(es) allows for potentially a bad situation to happen.

Darrell read the commentary language for the committee members.

(Mike) why would they want to shut down a ventilation system in a fire?

Darrell fully understood Purdue and Lilly situations. However, he was concerned about other facilities that are not sprinklered, and wants to make sure that by deleting this requirement, the committee is not creating another issue.

(Mike) if a facility can do natural ventilation, and then they are not required to do mechanical ventilation. Re-stated that shutting down the ventilation system will cause more problem than resolution. Now there is a potential for explosion if the ventilation dilution level exceed the LEL or the fire fighters have been exposed the toxic chemicals.

Duane asked if they left the current language, but added an exception for manifold systems could that resolve the issue.

(Mike K.) NFPA 91 addresses exhaust systems for vapors, mist, etc. and the standard relies on the risk analysis to determine the level of risk.

(Darrell) if the requirement is deleted, would a sign telling the fire department where the electrical equipment was located to shut the system down if warranted?

(Dan B) if there is a fire and the fire department does not know what is in the room or building; do you really want them to go into the room or building to read a sign?

(Mike) cannot recall a situation/case where you would want to shut the ventilation system down. However, he could think of several situations where you would want to start the ventilation system up.

(Darrell) can fire go up the fume hood duct?

Mike reminded everyone that fume hoods are designed to maintain the flow of “air” so “fumes” are kept 25% less than the LEL. If the cause of the fire is under the fume hood, yes the fire could go up the fume hood. However, when fume hood ducts are of a specific size and larger, a fire suppression system is required in the duct.

Mike Carson made a motion to accept the proposed code change. Dave Donahue seconded the motion. The proposed code change was accepted by a vote of 9-0-0.

4. New proposals

a. Proposed Code Change 2-1:

Frank Bruggner presented the proposed code change on behalf of Robert Hall on Chapter 2; Definitions, Method for joining piping system.

(Dan Bates) the code already has a definition why do we want to add this.

Cecilia read the definition of Pressed Joint.

Frank withdrew since definition covers the proposal.

b. Proposed Code Change 2-2

Frank Bruggner presented the proposed code change on behalf of Robert Hall on chapter 2; Definitions.

Committee confirmed that the proposed code change is already covered in the proposed definitions.

Frank withdrew the proposed code change.

c. Proposed Code change 12-1

Frank Bruggner presented the proposed code change on behalf of Robert Hall to Table 1202.5; Hydronic Pipe Fitting. They wanted to add a new ASME Standard for copper and copper alloy, ASME B16.51 to the table.

(John Shimer) The Standard is a 2011 standard, which was printed after the 2012 book was published and made motion to accept the proposed code change.

Dan Bates seconded the motion.

The motion was accepted by a vote of 9-0-0.

d. Proposed Code Change 12-2

Frank Bruggner presented the proposed code change on behalf of Robert Hall to Section 1203.8; Copper and copper alloy tubing. The proposed code change was to add the words “press connect” joining method.

Mike Carson read the proposed code and stated that “press connect” is allowed.

Frank withdrew proposed code change 12-2.

e. Proposed Code Change 12-3.

Mike Carson stated proposed code change 12-3 is already in the code.

Frank withdrew proposed code change 12-3.

f. Proposed Code Change 12-4

Frank Bruggner presented the proposed code change on behalf of Robert Hall, to Section 1203.13; Steel pipe.

(Dan Bates) this is a mechanical connection and he feels that the proposal is covered.

The Committee members had a discussion and the conclusion was that the information did regard mechanical connections

Frank withdrew the proposed code change.

5. Memo from Mara

Fiscal impact of the testing agency is the concern.

(Darrel Cross) the exception to 507.2.1 removes the requirement for a type one hood, if document can be produced that they comply with the exception.

(Mike Koppes) the standard was basically developed for pizza oven.

(T.J.) is the pizza ovens open or closed? If there is no lid then a Type I hood is required and if it had a lid, and then a Type II hood is required.

(Mike) stated that they only have closed pizza ovens.

A discussion followed regarding Type I hood versus Type II hood and what each was designed to accomplish.

(T.J.) the Section should stand as written.

(Cecilia) the exception has a cost for the UL testing documentation.

(David Donahue) it is the responsibility of the manufacturer to have the testing performed on the appliance and provide the documentation.

(Mike K) has seen the data, but has not seen the information from the manufacturer. Conveying ovens usually have the documentation. This could be a cost savings. If you look at the current table, this might eliminate a lot of the hoods.

(Darrell) once the manufacturer has the testing performed; it would be a onetime expense. It would be an expense to the manufacturer, not the business owner.

This would be addressed during the plan review and construction phase. They need to have the documentation from the manufacturer so that the appliance complies with the exception.

(Dave Kelly) would the owner have the testing done?

(David Donahue) the owner would have to go to the manufacturer.

(Darrell) the model code is based on the definition of the appliance, not how the appliance is used. If the manufacturer can provide the documentation, it would result in no Type I hood being required. How can anyone tell that the appliance produces grease during the plan review phase or construction phase?

(Dan) What about the residential appliances?

(Mike K) the current code, Domestic cooking appliance used for commercial purpose, was stricken, since they were not "used in commerce". So now when you look at the table, churches and daycares are exempt. Some have commercial cooking equipment but they don't need a

hood. By eliminating the table, they are not exempt. Domestic appliances are to be not used for commercial purposes. The end user typically has no idea what the code says.

(T.J.) then the (Code Enforcement) cannot do anything about the domestic cooking appliances being used in commercial applications.

Darrell read the definition of a commercial kitchen. To him the definition covers the definition of the domestic cooking appliances used for commercial cooking purposes. A range in a “break room” does not constitute a commercial cooking and it would not require a hood.

(Cecilia) the words “in commerce” are not in the code. Mara did not have a problem deleting the table.

(David Donahue) if the “appliance” is not being used per the manufacturer’s instruction, then a secondary test maybe required.

(Mike C) the Current table does not require a hood if cooking is only being performed once a week.

(Darrell) each jurisdiction is using the table differently. He is going to be very strict when they are doing cooking and when they stated they would only be doing warming. He would also have them define what is “cooking once a week”. Darrell feels the current code is being interpreted differently all over the state, so the cost might not be that great.

(Mike C) current code is based on the building, where the proposed code is based on the type of appliance.

(Darrell) there are options to use different cooking equipment. He did not see anything that requires an addition fiscal impact for every business.

6. Discussion of 675 IAC 18 draft amendments.

(Cecilia) In Section 507.2.1 Mara questioned the word “approved”. It was suggested that the Committee us “approved testing agency” or used “approve agency”. The draft amendments used “approved agency”. “Approved Agency” is defined, but “approved testing agency” is not defined.

(Darrell Cross) given the definition of approved agency in model code he was ok with using “approved agency”.

By consensus the committee agreed with the change.

Chapter 6 (c), 607.5.5 to delete the text “and smoke” without substitution.

(Mike C) what is written is understandable.

(David Donahue) Why in some section it says “delete the text” and in other section everything is deleted and re-stated.

T.J. explained that it depends on which is the easiest. Remember that other people use and read our codes.

(Cecilia) is what she has written understandable by the committee?

Dave Kelly Chapter 6, (d) questioned the section.

(Darrell) it should be 9.17.4 Baffle plates. Chapter 6 (d) belongs in Chapter 9.

Dave questioned the (d).

Cecilia will correct, and moved the text to chapter 9. She will add the one proposal from today.

(Darrell) page 9, section 10, last one: amend Section 1001.1; the words “nationally” have to be retained with approved standard. So it reads “national approved standard”.

(Cecilia) is carrying forward current language.

(T.J.) what a national recognized standard is? Looking for clarity so the reader knows where to go. It might be better to leave it generic.

David suggested inserting the word “Indiana standards”.

The Section was retained as printed.

David Donahue: page 8, (2), asked if that was to be an exception (2).

Cecilia answered yes.

Galvanized steel ducts section 510.6.3, does the exception go with the (h) or is it actually (i).

Cecilia confirms it is an exception to (h).

Duane pointed out another formatting area on page with the (g) with the metric measurement.

(Mike C.) the “zero” in front of .236 should be a zero instead of an “o”(alphabetical)

(T.J.) Page 8, exception to (h), “group H, occupancy”. The comma should be between the “H” and the word “occupancy”.

(Cecilia) the comma comes after occupancy.

(Dan) why galvanized steel ducts were added to Section 5.10.8.?

(Cecilia) the code change proposal 5-7 was written this way, that Section 510.6.3 was change to read as follows.

Discussion followed regarding Section 510.6.3 and 510.8.

(Duane Mowery) why the Chapter 11 committee amendment to delete the locking caps and asked who wrote the proposal?

(Cecilia) it was a Committee consensus and that someone still had to write the proposed amendment on the code change form. Is there a cost saving for this section?

(Darrell) there would be no cost saving since; the locking caps are not required by the current code.

(Dan Bates) pointed out that the Committee created a conflict between Mechanical Code and the Fuel Gas Code by allowing sealed combustion appliances in the plenum. Fuel Gas Code state that a shut off has to be with 6 feet of the appliance. Mechanical Code Section 602.1 conflicts with Fuel Gas Code Section 409.1.2. The fuel gas code states that shut offs shall be prohibited in concealed spaces and furnace plenums. That is why the Mechanical Code only allowed electric appliances in the plenum.

Cecilia summarized the proponent's reason statement.

(Dan B) Code Change Proposal 6-3 seemed to deal with open flame basically. Section 404.3 of the Fuel Gas Code states that piping shall not be installed through a duct system etc and a Plenum is part of the duct system.

(Kim Mann) stated anything that does not have a duct is considered an open plenum.

(Dan Bates) stated that pressed fitting, or CSST cannot be in the plenum.

(Darrell Cross) in the next to last line of Section 602.1 currently reads "...and do no exhaust...: should be changed to "...and does not exhaust..."

(Cecilia) would make the changes and add today's code change proposals and get another rough draft back out to everyone.

7. Review Chapter 4 for fiscal impact.

(James Asel) Section 401.2 requires naturally occurring air changers, and if natural occurring air changes cannot be achieved then a mechanical means has to be provided. It appears that the Energy Code which requires mechanical make up air is in conflict with the Mechanical Code.

(Mike Carson) this Section could have a fiscal impact. They will have to perform a blower door test. If the building fails the blower door test, then mechanical air has to be put in and ASHRAE does not address a blower door test.

(T.J.) how much does it cost to do a blower door test? Suggested the second paragraph be deleted.

(Mike Carson) the Mechanical Code does give option of either natural or mechanical.

(Dan Bates) is this was based on the performance method or prescriptive method of using the Energy Code? The building owner has to state which method for compliance is going to be used.

(James Asel) does Indiana Energy Code require the blower door test?

(T.J.) no, the blower door test is not a requirement.

(James Asel) the cost is approximately \$100.00 per door to perform a blower door test for natural air exchanges.

The committee by consensus agreed to delete the second sentence of the Section and the reason state the fiscal impact and code referenced is the IECC.

Section 401.4

Dave Kelly stated that the only thing he sees is added language of “not less than 25 feet from an alley”. This section could save money by giving more options. Going up 25 feet versus going over, could reduce the amount of pipe and number of fittings needed.

Section 401.4 (4) - No Fiscal Impact.

Section 401.5 (12) – No Fiscal Impact.

Section 403.2.1 (12) recirculation of air – (4) footnote change No Fiscal Impact.

Section 403.3 (12) exception refers to smoking lounges.

Cecilia read the change between the 2006 and 2012 code.

(T.J.) it appears to be an option.

(Duane Mowery) ventilation rates have decreased. There is a new methodology in using this section.

(Mike C) there is no fiscal impact, because building owners are not required to provide smoking lounges. But, if they choose to have a smoke lounge then they would have to comply with this requirement.

Section 403.3.1 everything in 403.3 is a completely new to the 2012 code.

(Duane) the new section is based on an ASHRAE Standard and based on his experience with the ASHRAE Standard the new section will not create a fiscal impact. Less outdoor area is being brought inside the building. The new section look at where people are placed in the building and the new section do take into consideration, smoking versus no smoking buildings.

Mike Carson agreed that Section 403.3 would not create a fiscal impact. He did further state that an Engineer may have a little more work to do, but it should not affect the fiscal impact.

Section 404.2 #2, carbon monoxide detectors is the new addition to the 2012 code.

The Committee members had a discussion if item #2 would create a fiscal impact.

It was determined that a building owner has been given an option by either complying with #1 or #2, therefore this is no fiscal impact.

9. Discussion of next meeting date

Cecilia announced that the next meeting would be held on September 19, 2012 at 9:10 a.m. at the Plainfield Guilford Township Public Library