OKLAHOMA UNIFORM BUILDING CODE COMMISSION

ALTERNATIVE FUELS PROGRAM TECHNICAL COMMITTEE
MEETING MINUTES
CONSTRUCTION INDUSTRIES BOARD/UNIFORM BUILDING CODE COMMISSION CONFERENCE ROOM
2401 NW 23RD STREET, SUITE 2F
OKLAHOMA CITY, OK 73107
APRIL 27, 2015 - 1:30 P.M.

COMMITTEE MEMBERS PRESENT:
Greg Armstrong, Ross Barrick, Anthony Blatt, Mitchell Hort, Paula Laney-Cowart, Joe McKenzie (arrived at 1:55 p.m.), Jeremy Moore (arrived at 1:40 p.m.), Eric Pollard, Tom Sewell, Adam Shupe, and Cary Williamson

ALTERNATE MEMBERS PRESENT:
Robert Lassiter

COMMITTEE MEMBERS ABSENT:
Craiton Cooper, Dave Evans, and Terrance Hellman

OTHERS PRESENT:
Kathy Hehnly (Staff - OUBCC)

CALL TO ORDER:
Mr. Mitchell Hort called the meeting of the Alternative Fuels Program Technical Committee to order at 1:30 p.m. in the Construction Industries Board/Uniform Building Code Commission Board Room at Shepherd Mall, 2401 NW 23rd St., Suite 2F, Oklahoma City, OK 73107.

DISCUSSION AND ACTION ITEMS:
Discussion and possible approval of the March 30, 2015 minutes
Mr. Hort noted the first item was approval of the minutes. He gave the committee members time to review the minutes and asked if there were any additions or corrections needed.

MR. ROSS BARRICK MADE A MOTION WITH A SECOND BY MR. CARY WILLIAMSON TO APPROVE THE MINUTES AS SUBMITTED

VOTING AYE:	Greg Armstrong	Robert Lassiter
	Ross Barrick	Eric Pollard
	Anthony Blatt	Tom Swell
	Mitchell Hort	Adam Shupe
	Paula Laney-Cowart	Cary Williamson
VOTING NAY:	None	
ABSENT:	Craiton Cooper	Joe McKenzie
	Dave Evans	Jeremy Moore

Terrance Hellman

ABSTAIN: None

Mr. Hort noted some documents had been submitted and asked Ms. Hehnly who had submitted them. Ms. Hehnly noted in the back of each book were three documents, one from the Oklahoma Department of Labor (ODOL) that was a one-page document labeled CNG, the second document was from Chief Jeremy Moore, and the third document was from Mr. Craiton Cooper.

Discussion and possible action on a comparison between the 2015 Edition of the International Fire Code® (IFC®) and the 2013 edition of NFPA 52 - Vehicular Gaseous Fuel System Code® (NFPA 52®) to include the following:

I. Definitions in Chapter Two of the 2015 Edition of the International Fire Code®
Mr. Hort asked the committee how they wanted to proceed with the review, reading through everything or just bringing up issues found. The committee discussed how to proceed and determined that there were no current issues, but the chapter should be left open to allow for definitions to be added if needed. Mr. Sewell stated he had an issue with NFPA 52® which used the words "tested" and "certified", mainly when talking about relief valves and he would like to understand what the meaning of each word should be. He added testing of a relief valve was quickly done, but to certify them, they had to be removed and sent into a lab or a service had to come out and test them. There was discussion on, which codes utilized the terms, the additional words "listed" and "labeled", and an issue in NFPA 52®, Section 7.10.2 with relief valves. Mr. Sewell noted the section was one he had issues with because in Section 7.16.7 added a different requirement. He added, the committee should come to consensus on the definitions of the terms Mr. Lassiter stated he felt the issue should be reviewed when the committee got to the point they were reviewing the pressure relief valves. He added language could be inserted into the IFC®.

II. Section 2308 - Compressed Natural Gas Motor Fuel-Dispensing Facilities in Chapter Twenty-three of the 2015 Edition of the International Fire Code®
Mr. Barrick asked to back up for just a moment to discuss definitions. He noted a definition was added to the National Electrical Code® (NEC®) rules for a Nationally Recognized Testing Laboratory and was something the committee could do if needed. Mr. Hort asked the committee if there were any changes on Section 2308.1 General. Mr. Shupe noted the section referenced Chapter 53 and it wasn't one of the Chapters assigned to the committee for review. He asked, if the committee should review the Chapter. Mr. Hort replied he thought Chapter 53 was one of the chapters the committee would need to review.

Mr. Lassiter recommended the committee utilize the documents listing differences to start the review process and work through them. He noted he and Mr. Hellman went through page by page and compared issues. He noted their list contained items that were specific differences and would be a good starting point to get the discussion moving.

Mr. Sewell noted he had issues with Section 2304 in the IFC® that was not listed in NFPA 52®. He wanted to know what the definition would be when discussing "unattended" fueling systems. He noted in the Section 2304.3.7 there was a twenty-five (25) gallon limit. The committee

discussed the purpose for the limit, lack of enforcement within the country on the issue, capacity of vehicles, what modification if any should be made, fees attached to reauthorizing to continue pumping fuel, the definition of an "unsupervised" or "unattended" self-service station, and Section 2304.1 requirements. At the end of the discussion, Mr. Sewell said he would talk with the officials in Tulsa and Broken Arrow and see what they were doing on the enforcement side. He noted he wanted it brought up as discussion item to be worked through.

Mr. Hort utilizing the three documents noted the next issue was with item was in the IFC® Section 2308.7, Emergency shutdown control. Mr. Lassiter noted NFPA 52® required one emergency shutdown at the dispensing area within ten (10) feet. He stated the code was not clear if the "dispensing area" was under the canopy or within ten (10) feet of each individual dispenser. He noted any ONG site in the state, there was one emergency shutoff device at the pump. He added every ONG site would be out of compliance according to the IFC®. He noted if there was an issue of what would be grandfathered in, the intent of the Department of Labor was that it was okay so long as there was a shutdown. Mr. Lassiter discussed and explained his concerns with the requirements in the IFC® for the emergency shutoff distance requirements. The committee determined there were two items to address; how many devices were needed and the distance restrictions for them. The committee discussed the requirements for emergency shutdown for liquid gasoline stations and if there was a combined service station, should the shutdowns should be wired in together or if they should remain as two separate systems. Mr. Barrick clarified the IFC® requirement said that there had to be a shutoff within 75 feet of the dispensing area but no closer than twenty-five (25) feet to the dispenser. Mr. Lassiter said the requirement became an issue with the small single dispenser with a 3 x 6 foot canopy, located in a gravel parking lot and noted the twenty-five (25) feet would not be under the canopy and would be in the middle of the lot somewhere. The committee agreed there was a need for at least two shutoffs. Mr. Shupe wanted to confirm that a ten (10) foot requirement in NFPA 52® would not be an issue as well. Mr. Lassiter pointed out NFPA 52® required the device at ten (10) foot or less. Mr. Sewell noted a problem he had with NFPA 52® was that if he had two dispensers were twenty (20) feet apart then there had to be two buttons because they had to be within ten (10) feet of the dispenser. Mr. Lassiter noted the requirement was within ten (10) feet of the dispensing area and asked what the committee thought that area was. Mr. Sewell noted they utilized ten (10) feet from the body of the dispenser. He added the dispensing area could be the outreach of the hose. The committee discussed the definition of dispensing in the IFC® and that the language was plural which would indicate the group of dispensers and not a single one.

Mr. Shupe suggested moving on to the other areas of concern and coming back to the minimum distance. Mr. Lassiter liked the language "line-of-site" and not having a specific maximum distance. There was further discussion on the distance requirements, location of emergency shutoff in the compressor area, reasons for the twenty-five (25) feet limitation, what actually existed in currently constructed facilities, requirements for regular gasoline and if the distance modifications would be impacted if tying the two systems together, hydrogen requirements, and needing to make the same modification to the corresponding code requirements. The committee discussed the NEC® requirements in Section 514.11(C) and noted both it and NFPA 30A® (Section 6.7) had different distance requirements. Mr. Hort asked the committee what they wanted to do. Mr. Shupe replied the committee was still in agreement there should be two emergency shutoffs. He added on the closer one, the committee needed to decide between, ten

(10) feet, twenty (20) feet, and twenty-five (25) feet. He noted the issue there was that ten (10) feet may be unrealistic in some instances and no code supports that. Mr. Lassiter noted if the committee was talking about multiple dispensers utilizing one button that was what he saw as the biggest issue. He added if there were two or three lanes and just one button in the center lane, there would be no way to get within ten (10) feet of the other two lanes. He added if the requirement was ten (10) feet from the dispenser that was the problem. He noted NFPA 52® read "from the dispensing area." He noted dispensing area was not defined. Mr. Hort suggested Mr. Lassiter work on the some verbiage to bring back for review and discussion at the next meeting.

Mr. Hort noted the next item from the Department of Labor list was for Section 2308.2 Approvals. He stated on the list the IFC® and IFGC® did not reference any listed or approved equipment that was listed in NFPA 52®. He asked the committee if they needed to discuss the issue. Mr. Lassiter noted he thought it was similar verbiage and did not think there was a conflict.

Mr. Hort noted the next item on the Department of Labor list was alternate requirements. Mr. Lassiter noted if he remembered correctly it was talking about above ground storage versus an alternate site. He added he didn't think the IFC® or IFGC® allowed for that. He noted the first underground storage would start drilling in Oklahoma in a week. He noted NFPA 52® allowed it, if criteria was submitted and approved. Mr. Sewell noted what that was talking about was drilling a gas well and not proffering it. Mr. Lassiter noted it was happening in the State and it was just a matter of if the committee was okay with putting the verbiage from NFPA 52® into the IFC® and IFGC®. Mr. Hort asked if the standard was already referenced, did it need to be added to the I-codes. Mr. Lassiter noted if NFPA 52® was referenced as a document, he didn't know it needed to be added since there was no conflict. Mr. Sewell noted that would depend on the interpreter of the code official in the field, who said if it's in the IFC® it was allowed, if it wasn't than it would not be allowed. The committee determined the language should be brought into the IFC® and nominated Mr. Dave Evans to create a comment form. The committee discussed the requirement for an engineer listed in the language in NFPA 52®, if there needed to be discussion with the Oklahoma Corporation Commission or Department of Environmental Quality regarding the new Department of Labor legislation requirements.

Mr. Hort noted the next item was an issue from Mr. Cooper on Dispensing in Section 2308.3. He reviewed Mr. Cooper's notes regarding the separation of dispensers when canopies had been constructed according to the International Building Code® (IBC®) and provide weather protection. Mr. Sewell noted a CNG canopy was different from a gasoline canopy. He added there were requirements for venting of the canopy to keep lighter-than-air gas from being trapped. He stated there were also requirements for lighting in the canopy as well. Mr. Sewell added the requirements were trying to keep the area from becoming a Division II area by venting it. He noted most of the problem was when adding the dispensers to an existing canopy area. Mr. Lassiter noted the lighting requirements were in the NEC®, Section 514.3(B)(2). He noted that was the only reference he could find for ventilation of canopies for CNG. He noted there was not anything that stated what the ventilation requirements should be. Mr. Sewell agreed he had not found anything either. He added he had locations where some ventilation had been provided and a fire marshal had indicated more ventilation was needed. Mr. Barrick noted the requirement was in NFPA 30A® as well. Mr. Moore noted NFPA 52®, Section 7.4.2.2 discussed a roof design

for ventilation and dispersal of escaped gas. Mr. Barrick noted in NFPA 30A® the sections were 12.1, 12.4, 12.5 that addressed the need for ventilation. Mr. Sewell noted the issue was when owners were more worried about the look of the canopy, not its functionality. Mr. Hort asked if someone wanted to write some clarification and Mr. Lassiter noted he had some verbiage already and could do the form. Mr. McKenzie noted in the International Mechanical Code® (IMC®) there were requirements for Natural Ventilation. He recommended everyone get a copy of the section and have time to study those requirements and figure out if that language would work. Mr. Shupe noted one of the codes allowed for detectors to shut down the system. The committee discussed the requirements in the handout of the section from the IMC® and after the discussion Mr. Lassiter asked for time to review and study the requirements. Mr. Sewell noted he would take on the issue and come back with something for everyone.

Mr. Hort noted the next item from the Department of Labor's list was Section 2808.3.1(3) Location. Mr. Lassiter asked if anyone knew the difference between a "track" and a "main track." He added to him any railroad track was a track. Mr. Sewell noted his company always assumed the track was a "main track" as there was no signage posted to provide the information. Mr. Lassiter asked if there was any reason that the requirement in the IFC® and IFGC® could not be modified to match NFPA 52® and require all of them to be built no less than fifty (50) feet from the any track. Mr. Moore cited the Tulsa Transit Authority as an example for when it could be put less than fifty (50) feet. Ms. Laney-Cowart found a definition of a "main rail track" from the Glossary of Terms for the Allen Railroad and read the definition aloud. The committee discussed the issue further and determined the language in the IFC® was sufficient and did not need to be modified. There was further discussion on adding a definition of a "main track" to the IFC® and IFGC® and Ms. Laney-Cowart volunteered to provide a comment form with the proper wording. Mr. Shupe noted he thought the requirement of fifty (50) feet was specifically for powered train propulsion that was provided by an outside electrical source. The committee discussed the section further and noted the requirement applied to both the outside powered source as well as a "main track". Mr. McKenzie noted there were areas where fuel was transferred from a rail container and he was asking if his understanding was so long as they are within twenty-five (25) feet of the container on a track or fifty (50) feet from a main track they were within safety rules. The committee discussed Mr. McKenzie's question and determined that was the intent of the code.

Mr. Hort noted the next item was on Vent Tubing in Section 2308.1.2.5 of the IFC®. Mr. Moore noted NFPA 52® required the vent tubing to be protected from rain, snow and solid material and the IFC® and IFGC® stated no rain caps. Mr. Sewell stated he didn't like not having a cap and cited the example of a mud dauber nest and if there was only a 150 pound relief valve, the nest might not blow out. Mr. Lassiter provided a picture of a sock that went over the top of the pipe. Mr. Moore noted that the picture was from a PG&E facility in California that used those almost exclusively to protect the vent pipes. Mr. Sewell noted there were several places in Tulsa that made them specifically for relief valves. The committee discussed different caps types, drainage requirements in the IFC® for vertical tubing, requirements in NFPA 52® for Sections 7.4.3.10 and 7.6.2.1, listing and testing requirements for the items used as rain caps, and if the wording "unobstructed" meant no cover or a properly installed cap that would allow for the proper release of the gas without any obstruction. There was further discussion on the issue and at the end of

the discussion the consensus was the IFC® and IFGC® allowed for a rain cap that did not obstruct the flow of the gas and no further action was taken.

Mr. Hort noted the next item addressed "Users" in Section 2308.4 of the IFC®. Mr. Lassiter noted the issue was if written instructions or pictogram or video watched on the dispenser was sufficient for training. He noted those were options were allowed by NFPA 52® however the IFC® stated the owner had to ensure safe operational training of the user. He asked if the rest of the committee felt those options were sufficient or if the owner needed to come out to show a customer how to use the dispenser each time. He noted he felt the wording put too much of a requirement on the owner and felt modifying the language was in order. The committee further discussed the issue and consensus was to utilize the language from NFPA 52®. Mr. Sewell volunteered to submit a comment form for the modification.

Mr. Hort noted the next item was in the IFC®, Section 2305.5 dealing with Fire Extinguishers. There was a discussion on providing the extinguishers, the number of extinguishers allowed, and type of extinguisher to be provided and determined the language in the IFC® should be utilized.

Mr. Hort noted the next item was Signage in Section 2308.8.1.2.6. He noted there were different requirements in NFPA 52®, Section 7.14.12. The committee discussed the requirements of both codes. Mr. Sewell noted one sign they put out was a diamond shaped signed with different colors but he had never found where the requirement was in NFPA 52®. Chief Moore noted the requirement was in NFPA 704®, Placarding Systems. Mr. Barrick noted Section 310.2 Prohibited areas in the IFC® required signage for "No Smoking" areas. He added Section 310.3 had "No Smoking" requirements as well. Mr. Sewell noted NFPA 52® required specific sizes and colors. Mr. Lassiter asked if there were any requirements in the IFC® regarding the size of the lettering. Mr. Barrick noted he found some under the Hydrogen Motors Section in 2309, Section 2309.3.1.5.5. The committee determined the requirements from NFPA 52® should be brought over into the IFC® and IFGC®. There was further discussion regarding where in the section the requirements should be added. Mr. Hort noted he would provide a comment form with a couple of options for the placement of the language that the committee could discuss at the next meeting.

Mr. Hort noted on the document provided by Mr. Cooper, he listed an issue with regulators in Section 2308.5 of the IFC®. He noted he felt the committee had already addressed that in the previous discussion and asked the committee if they agreed. Mr. Sewell noted some regulators were self venting with weep holes and it should be common knowledge that those are turned down or where the vent was straight up. He noted a lot of them did have a bug strainer or something on them. Mr. Hort noted installation instructions showed that as a requirement.

Mr. Hort noted Mr. Cooper had listed another concern in his document for the IFC®, Section 2308.8 - Discharge of CNG from motor vehicle fuel storage containers. He read through Mr. Cooper's notes indicating some points the committee had already discussed on some of the issues. He asked if the committee saw any issues that should be discussed. The committee discussed the notes and determined no modifications were needed. Mr. Hort asked if there was anything else on the lists that needed to be covered. He noted the committee did pretty well other than PRD. Mr. Lassiter noted PRD had been covered during the discussion on vent tubing. The

committee discussed that Mr. Evans would be working on the language on "listed", "approved", and "labeled".

Mr. Sewell noted as the committee was discussing items he came across something of concern in Section 2308.4, Private fueling of motor vehicles. He stated the language read "Self-service CNG-dispensing systems, including key locks, card code, card locks dispensing systems, shall be limited to the filling of permanently mounted fuel containers on CNG-powered vehicles." He noted his issue was with tube trailers. He noted, a tube trailer was dropped off, the tubes fueled, and then a truck would come by to pick them back up later. He asked if they were considered a CNG-powered vehicle. Mr. Lassiter stated he did not consider them to be a CNG powered vehicle. Mr. Barrick noted the trailer would have to be motorized to be a vehicle. Mr. Sewell asked if language should be added to allow for refueling of tube trailers. Ms. Laney-Cowart asked to confirm the cylinders were not connected. Mr. Sewell noted they were full cylinders. He added what was happening was because of issues with a pipeline or was for remote fueling. Ms. Laney-Coward noted if the cylinders were not connected it wasn't a vehicle and fell under different requirements. Mr. Armstrong noted the trailers he had seen were with the utility companies themselves. He added if a building was off-line for some reason, they would bring the trailer in and hook the building up. Mr. Sewell noted private companies utilized them as well. He added when the City of Ada's pipeline went down during the winter, his company was providing trucks each day to Ada to run the industrial park by the concrete plant. There was further discussion regarding the issue and the committee decided further study was required.

PUBLIC COMMENTS:
There were no public comments.

ADJOURNMENT:

MR. ADAM SHUPE MADE A MOTION WITH A SECOND BY MR. JEREMY MOORE TO ADJOURN

VOTING AYE:	Greg Armstrong	Robert Lassiter
	Ross Barrick	Eric Pollard
	Anthony Blatt	Tom Swell
	Mitchell Hort	Adam Shupe
	Paula Laney-Cowart	Cary Williamson
VOTING NAY:	None	
ABSENT:	Craiton Cooper	Dave Evans
	Terrance Hellman	
ABSTAIN:	None	

Minutes approved in Committee Meeting on the 26th day of May, 2015

MITCHELL HORT
Mr. Mitchell Hort, Chairman
Alternative Fuels Program Technical Committee

PREPARED BY: KATHY HEHNLY
Ms. Kathy Hehnly, Executive Assistant
Oklahoma Uniform Building Code Commission

OFFICIAL COPY: *Original copy with signatures in office file.*