

2009 EIAA 13th Annual Conference
Meeting Minutes

February 6 & 7, 2008

Present: [List of attendees]

Location: Chateau Louis Hotel & Conference Center

The meeting was called to order by Stan Misyk at 8:30 A.M.

I - Announcements

Stan started the conference by introductions of the head table; John Hilary, Executive Director, Safety Codes Council, Ivan Moore, Assistant Deputy Minister, Alberta Municipal Affairs, Safety Services, Dan Niven, Technical Adviser, Alberta Municipal Affairs, Don Bradshaw, City of Airdrie, Vice chair, Len Elford, South Vice President of EIAA, Lawrence Pirnak, Electrical Safety Codes Officer, Municipal Affairs, Recording of minutes and prizes.

Stan also announced the housekeeping items, smoking policy, bathrooms, exits and lunch. All attendee's where asked to put a business card in their ID pouch so that we know that you have attended the conference.

Stan explained the reason that the conference was moved to the Chateau Louis because Franklin's Inn was doing some renovation's and could not accommodate us this year. The executive looked at other hotels which where more expensive, NAIT which had no parking and ended up here. Stan also asked that at the last ETC meeting this conference could be part of the Safety Codes Council and AEICTC Conference in June which is held in either Banff or Jasper. Everyone was asked to give this some thought and let us know what you think. Stan thanked the vendors for there attendance and encouraged them to participate in the conversations but they would not be able to vote.

All attendee where asked to introduce themselves. Stan introduced Lou Greco as the secretary of the EIAA and thanked him for his part in this conference. Stan then announced the trades booths located at the back of the room and asked each booth representative to introduce themselves; Tony Funk, VAS Enterprises, mounting block for electrical boxes, Blaine Doherty, Dyna-flo, secondary seal manufacturer, Bob Holman, DAD sales, ideal industries, Dwayne Mills, Eaton-cutler hammer, Mark Lipton, Ferraz Shawmut, Matt Lisac, Conergy, wind solar energy, Daryl Schmidt, Schneider Electric, Greg Kelly. Westex Inc., flame resistant fabrics, Chris Medori, Thomas and Betts.

Stan announced that the guest speakers for this conference where Terry Becker with ESPS who will be speaking to the CSA Z462 Arc Flash standard, Brian Savaria with Eaton Corp, and Ed Hodson with Intertek will speak toward anti-Counterfeiting & Product Miss-application, and Larry Cantelo from Nait will do a presentation on Solar Power Generation.

Stan thanked the people manning the registration desk at the entrance. Joe Messmer, Don Letcher, Lou Greco, Don Scott, Sherry Davis, John Hazelwood, Carl Duchane and Lou Greco.

Stan also thanked everyone attending that was from out of province and all certification bodies.

Stan asked that every one complete the Conference Critique sheets which are provided in the handout. A reminder to fill in your name at the bottom of the sheet to be eligible for the draw for free registration to next years conference. The lucky recipient from this years conference was Bernie Bodinsky.

Stan announced that tickets will be sold for all the prizes donated and thanked all the donors for making donations to offset this years conference. Several upcoming issues up for adoption this year are the 21st edition of the CEC, the Objective Based Industrial Electrical Code and the Enhanced Revised Master's Program.

Len Elford Vice President of the EIAA and representing Dave Moller, President who was unable to attend this year. Len spoke on behalf of the EIAA and Dave Moller, thanked the executive for organizing the conference and admired the time spent to research the items of concern. Len announced the provincial executive committee, Dave Moller, President, Don Letcher, North Vice President, Don Scott, Provincial Treasurer, and Lou Greco, Provincial Secretary. The EIAA currently have members through out Alberta with chapter's in Northern, Southern and Central Alberta along with Edmonton and Calgary. There are member's on numerous committee's in the electrical industry, Oil & Gas committee, Alberta Electric League, the Alberta Electrical Utility Code committee, the Electrical Technical Council, the CEC code advisory committee just to name a few. You can visit the EIAA web site for any additional information.

Stan called on Ivan Moore, Assistant Deputy Minister of Alberta Municipal Affairs to give us an update on what is happening. Ivan thanked every one for attending the conference as well as the executive for organizing a much needed conference. Ivan talked about the Master Electrician's Program, we have been working with the ECAA for a few years now to establish a new enhanced Master's Program. The program is strongly supported by the Minister and the goal is to have this program in place by April 1st this year. The Alberta-BC trade agreement has been worked on to remove barriers of permitting for either province. Reconciliation of both province programs was worked on and a solution has been achieved. This is to take effect by April 1st as well. The electrical code has moved to a 3 year cycle instead of 4 years, the consultation period is closed on February 26 rather than the 15th. Pierre McDonald is looking after this venue.

Questions: What is a BC field safety program and how will that effect issuing a permit in Alberta?

Answer: BC has two levels of safety, the field safety rep can sign off on compliance. There will be a system to recognize a BC electrician similar to that of an Alberta master.

Will the current Permit Regulation allows a home owner be able to hire an electrician under a HO permit?

Answer: The permit regs will not be changed, the current permit reg does not specify who does the work.

Will the agreement be communicated to all SCO's and involved parties once it is in force?

Answer: Yes, the information will be relayed to all involve as soon as it is in place.

Stan called upon John Hilary from the Safety Codes Council, to say a few words on behalf of the SCC.

John welcomed all attendees, and thanked all representatives sitting on the Electrical Technical Council. John indicated that the training for the new electrical utility code Group B is taking place as we speak and is being done by Mike Gardner and must be completed by April 1, 2010. The Objective Based Industrial Electrical Code is available and published by CSA. It is not to be used in Alberta until it is adopted through regulation. The Safety Codes Act is being opened for review through 2009 and 2010, this is the first time the act has been looked at since 1991, the first round of stakeholder consultation will be some time in the spring, it is penciled in for adoption for the spring of 2011 if all goes smoothly. Stay tuned and everyone will be notified of the consultation process. The council has relocated to first Edmonton place which is on Jasper Ave. The Safety Codes Council versus Terein case is in the court of queens bench where the judge objected to the order written to more than one person, stating that blame was being laid. The judge indicated that the order should be written to the owner/person in care r control only. Safety Codes Council accountability framework has been looked at and Alberta Municipal Affairs relationship is being reviewed, resulting in SCC bylaws being amended. The Council is in the process of recruiting a new board of directors with the chair remaining with Dr. Ken Sauer. New bylaws have been signed by the council and Municipal Affairs. The board of directors will be 5 rather than the previous 17. The SCC annual conference will be held in Banff this year on June 10 to 12th which will include the ABOA, and the AEICTC.

Questions: Ken Hood, As a multi discipline SCO the level B training and other training has a substantial cost. Regarding the BC trade agreement, how will the new Master's Program inter-relate with the BC system? John informed the group that the SCC absorbs the cost of developing the course and passes on a part of the costs to the SCO's but the cost of training is at it's lowest rate possible. Cost for developing the training is enormous \$100,000 up to \$300,000, the SCC is looking at other more reasonable ways to reduce delivery cost of training.

The system will provide a means to determine the qualifications of a BC master doing work in Alberta, it's not yet determined how this will work exactly but TILMA and the new Master's Program are working on a system to do this.

Ivan gave a brief description of how the system will work regarding TILMA and the BC people coming into Alberta to do work.

Michael Chledowski, regarding the decision the court of queens bench came up with, does this mean we will be now issuing orders to home owners and not to contractors? John answered by saying that if the project is under construction and the contractor is still working on site the order can be served to him, however, if he has left the construction site and is complete, then you should deliver the order to the owner.

Ivan added that any questions regarding the Certified Master Electrician, CME, Clem Gratton is here representing the ECAA and would be happy to answer any questions regarding the CME Program.

Ivan Byer, Electrical Group B, how can a Group A SCO get experience to become a Group B inspector. John indicated that the requirements for a Group B SCO is outlined in the SCC calendar, but the only way to advance to a Group B SCO would be to link up with a Group B SCO and get some hands on experience.

Michael Chledowski, are you saying that if I where to work with a Group B SCO over time I would be able to get my Group B certification? John indicated that it would be

a case by case basis and with proper documentation it may be possible to get through the door.

Back to the court case are you saying that we would send the order to the occupant/owner and never send it to the contractor? John indicated that it would depend on the stage of construction. How would this relate to a contractor who would have done work that was not compliant to the code. John indicated that the safety system should through the inspection process handle this type of deficiency. Alex Prockiw, In this court case who drew the permit? John indicated that this was a building permit, the case was a house that has settling and there was no geo thermal assessment done and the problem showed up 10 years later.

Stan read off the sponsors for this years conference; Alberta Municipal Affairs, Accucode Inspections, Battleriver REA, City of Calgary, City of Grande Prairie, City of Red Deer, Colt/Worley Parsons Eng, Conergy, Coordinated Engineering, CSA International, DeJong Printing, Dynaflo, ENMAX, EPCOR Power & Distribution, Emerson, ECAA, Ferraz Shawmut, ILSCO, the Inspections Group, ITS Intertek, Leduc County, Marsh Canada, QPS Evaluation Services, Redback Decals, Roadgear Sportsware, Safety Codes Council, Schneider Electric, Service Credit Union, Thomas & Betts, VSA Enterprises, Westex Inc.

II Agenda Items

Stan asked Don Bradshaw to start with an agenda item that was carried forward from 2008.

Agenda Item #2008ag-17 CEC 46-202 Emergency system reference to CSA standard submitted by Don Bradshaw

Emergency lighting can be provided by selected general lighting run by emergency generators rather than providing (battery Powered) unit equipment emergency lighting. Is it the electrical SCO's responsibility to ensure all the installation, testing and maintenance program items listed in this standard are met? Or does this responsibility fall to the Building SCO as codes both have this requirement? Or both?

DISCUSSION: Dan Niven – Has questioned the Fire Administrator, the building discipline is responsible when the building is being built and once the building is occupied the Fire discipline is responsible for the testing and maintenance. Stan added that it is the responsibility that the electrical trade makes sure that it meets the code. the verification is the responsibility of the Fire discipline but is installed and maintained by the electrical trade.

ACTION: Information only, Item Closed

Agenda Item #2009ag-01 SCO Qualifications submitted by Philip Deuel

Considering the amount of experience and time it takes to become an electrical contractor/business owner. I find it disheartening to find newly acquired Journeyman electricians becoming inspectors, telling us what is right or wrong.

DISCUSSION: Stan stated that an SCO should be required to be a master electrician to be an SCO. Is there any consideration to have some checks and balances for the SCO's. John Hillary advised that the qualification requirements are the highest in the safety codes act.

John Biollo asked Philip what he is after here, the requirements outlined are laid out. I think there is a miscommunication here.

Michael Chledowski, he sympathizes with some of the contractors because he is not a master but could have some experience that some masters do not have.

Clem Gratton advised that he would contact Philip to explain the qualification for both the SCO and the Masters certification and see where he wants to go with this.

Dave Ringette, it should not matter who makes the call, an SCO with a master or one without a master, the code is the code and if it does not comply it should no matter who calls it.

Carl Duchane currently is there any checks and balances in place to monitor an SCO?

John Hillary replied that with the monitoring of agencies, municipalities and corporations, these items are looked at and if required can be disciplined.

ACTION: INFORMATION, CLEM GRATTON TO CONTACT PHILIP DEUEL TO SEE WHERE HE WANTS TO GO WITH THIS.

Agenda Item #2009ag-02 Un-licensed electricians - submitted by John Biollo

DISCUSSION: John Biollo; with the new masters program, hopefully it will take care of the problem. As the court case John Hillary talked about we have an electrician working under a home owners permit, we can go after the home owner and not the electrician who did the work. There is some thing terribly wrong with this system.

Clem Gratton; If a home owner wants to take out a permit and gets his brother in law who is an electrician to do the work, he can do that, but is also responsible for the work done. The new masters program should take care of this, the master will be regulating themselves, so if a master is doing wrong he will be disciplined.

Wendy Nixon the concern EPCOR has is when a non electrician does the work, like runs the underground cable to a meter base, and runs it too short or does not reel it off properly, kinks the cable or runs it against a rock or piece of cement, some master is taking out a permit and when the cable fails, the blame is on who ever took out the permit.

Stan added that this is not only the Agencies or Utilities problem, it probably should be taken to Advanced Industry training as well.

Carl Duchane, there has been a number of USEB cable failure and this is probably why this happens. Some companies use laborers to lay USEB cable in the trench, these people are not electricians or indentured apprentices. There will be more court cases coming down in the near future that will make some changes.

Don Bradshaw stated that this doesn't seem to be a licensing problem, it is actually a problem with who does what electrical work. One way to ensure the proper people are doing the electrical work is to develop a good working relationship with the trades and qualifications apprenticeship person in your area.

Dennis Smith informed the group that his experience is that the home owner permit is the same price as a contractor permit, the municipality issues a home owner permit, when we come to do the inspection we find out that the home owner did not do the work. The permit is a \$65 dollar permit, so this does not allow the agency time to spend a couple of hour trying to find out who wired the basement. The municipality raises' the permit fee all we can do is try to make sure that the installation is safe and meets the code.

Ivan Moore commented that if the home owner took out the permit, then he is responsible for the work done. If there are corrections to be made, the home owner is responsible, if an order is the process it goes to the owner. No sympathy for the permit holder.

Joe Messmer stated that in the old days the inspector could ask for the electrician's credentials. It seems that we have lost that ability.

Don Bradshaw added that in Airdre they use a Home Owner Declaration that they have got from the city of Vancouver. The home owners is asked to sign the declaration before he is issued a permit.

Dennis Smith added that we need some assistance from AMA to make sure that the municipality uses the declaration. It seems that the municipality just sells the permits rather than doing all the checks to make sure the home owner is qualified.

In Saskatchewan they use a home owners permit and relatives are allowed to do the work, now this becomes a nightmare because now you have no idea who has done the work. We have people from Saskatchewan coming into Alberta and proving there time and writing there journeyman certification.

ACTION: INFORMATION ONLY. ITEM CLOSED

III Unfinished Business

Agenda Item #2004ag-Section 0M What constitutes an electrical room or an electrical vault?

DISCUSSION: Don advised that this went to CSA Part 1 and an answer was received but it was to do with working space, so somehow we have the wrong subject but this is a building issue and information is supplied for your info on the back of the submission.

ACTION: INFORMATION ONLY, ITEM CLOSED

Agenda Item #2005ag2-310M Access to and exit from working space.

DISCUSSION: Don Bradshaw advised that this was taken to Part 1 to ask for changes to the code, this came back approved but it made reference to the National Building Code which does not apply to dwelling units.

ACTION: DON SUGGESTED THAT THIS BE TAKEN BACK TO PART 1 FOR CLARIFICATION THAT THE INTENTION WAS NOT TO APPLY TO DWELLING UNITS.

Agenda Item #2006ag20-100M **Does rule 20-100 CEC regarding commercial garages repair and storage include auto dealership display rooms, auto shows and similar locations?**

DISCUSSION: Stan Misyk advised that this is at Part 1 presently and will remain at the Part 1 sub committee level.

ACTION: REMAINS AT PART 1 – CARRIED FORWARD

Agenda Item #2006ag26-722 **The administrator for the Electrical Discipline develop a Province wide variance to allow sump pumps in bedrooms to be supplied from a single receptacle, identified for sump pump use only, and connected to a general purpose overcurrent protective device.**

DISCUSSION: Stan Misyk indicated that there is a problem when the bedroom circuit is on an Arc Fault breaker. This will be taken to Part 1 for consideration. Pierre McDonald advised that this item is at Part 1 now and is at the 2nd round of deliberations and should be concluded by early spring.

ACTION: PIERRE MCDONALD WILL VERIFY WHERE THIS ITEM IS AT AND INFORM THE GROUP.

Agenda Item #2007ag-06 **Commercial Garages – ventilation hazard classification**

DISCUSSION: Stan Misyk informed the group that this item is presently at Part 1, the committee has realized that there are other rules in Section 20 that require attention and will be reviewing them.

ACTION: CARRIED FORWARD – WILL WAIT FOR DECISION FROM PART 1

Agenda Item# 2007ag-14 **Home owner Permits**

Discussion: New permit regulations came into effect on April 1, 2008, this item was discussed last year before adoption of the regulation.

Action: ITEM IS CLOSED INFORMATION ONLY.

Agenda Item# 2007ag-15 Push in terminals on receptacles

Discussion: Don Bradshaw stated that there has been problems with receptacles failing because of the push in terminal use, however the receptacles are designed for push in receptacles.

Stan indicated that according the UL white book the receptacles are not tested to be used for terminating the push in terminal for the third connection.

Don Letcher added that the devices are tested in the US but not in Canada, so if this is the case we cannot use this type of connection in Canada.

Ken Butler advised that he has contractors in the Peace River area that have had numerous failures as a result of push in terminals being used.

Clem Gratton advised that he has used the push in terminals and have not run across any failures over the years.

Michael Chledowski not disagreeing with Clem but as an inspector he has seen several failures of receptacles that have used the push in terminals.

Action: DON LETCHER SUGGESTED THAT THIS ITEM BE CARRIED FORWARD FOR CLARIFICATION FROM THE CERTIFICATION BODIES.

Agenda Item# 2008ag-03 Permitting for Communication wiring on customer premises

Discussion: Stan advised that this item has been around for some time now, where is the demarcation point of the utility, we have some agreement, we have some disagreement, we have a task force set up AND WILL HAVE MORE INFO AT NEXT YEARS MEETING.

Action: CARRIED FORWARD. THIS ITEM WILL BE LEFT WITH THE TASK FORCE UNTIL A CLARIFICATION IS HANDED DOWN.

Agenda Item# 2008ag-04 4-022 Size of neutral conductor & 6-308 Bare neutral

Discussion: Don advised that the question is; are all utilities insisting on a neutral the same size as the current carrying Conductor?

Stan informed the group that the utility was going to address this subject and advise industry of the result.

Action: ITEM CLOSED

Agenda Item# 2008ag-05 CEC 6-206 residential service disconnect outside

Discussion: Stan informed the group that this subject was discussed at Part 1 last year, this rule will not be changed and if anyone wants to use this, it must be under variance.

Don indicated that there are several installations out there but very few variances are being written, so again if you are using this type of installation it must be done under a variance. If there are a number of variances coming in, maybe this will reflect a change to the code in the future.

Action: ITEM CLOSED

Agenda Item# 2008ag-11 CEC 12-3022 Tray Cables with connectors

Discussion: Stan indicated that this subject was discussed last year and was reviewed at the CE Code Advisory Committee and forwarded to the ETC and CSA Part 1. Our recommendation to Part 1 is to add the words "or tray cable" after the words "Where non-metallic-sheathed cable" in sub rule 3 of rule 12-3022. This proposal was receptive and in the midterm Pierre is to issue a Standata to include cable tray under definition of non-metallic sheathed cable in Table 19 and definitions in Section 0 or to include tray cable in rule 12-3022(3). Question from the floor, was; is the cable connector tension strength of the connector sufficient to hold the cable, Stan indicated that the proper connector CERTIFIED FOR THAT purpose is to be used by industry.

Action: CARRIED FORWARD. STANDATA TO BE WRITTEN

Agenda Item #2008ag-13 CEC 18-092 Variances Standata(Sec Seals)

Discussion: Pierre informed the group that the last province wide variance was issued October 10, 2008 taking effect January 1, 2009. Basically it will not longer accept the manufactures" declaration. It is worded identically as it is in the 2009 Canadian Electrical Code. It allows for a secondary seal for equipment certified to the ANSI standard or it does allow for engineering solutions. The variance will disappear once the 2009 code is adopted.

Stan passed around a sample of a certified secondary seal that is marked single seal device that has a dual seal.

Question from John Biollo; a small oilfield plant has a situation that may require a secondary seal, but there history for the last 20 years show no problems with similar installations, why should they install a secondary seal. The 2009 CEC rule 18-072 Appendix B states that where there is a history in safety can be considered.

Action: - ITEM CLOSED

Agenda Item# 2008ag-14 CEC 26-724 Residential outside receptacles

Discussion: Don informed the group that this subject was discussed last year and went to Part 1, because there was a difference in the handbook. We where reminded that the handbook is to be used as a guideline for the rule, they have acknowledged that there is a error in the handbook and it will be corrected. The response back from CSA was that if there was one or more outside receptacles it has to be on a dedicated circuit. In the 2009 code there is a section I, which goes through the questions put forward to CSA and this question is in there.

Action: ITEM CLOSED FOR INFORMATION

Agenda Item #2008ag-16 CEC 30-504 Stairway (Lighting)

Discussion: Stan informed the group that this subject is presently at deliberation, Part 1 is suggesting that the definition of a switch needs to be looked at, therefore, stairway switches are to be hardwired, so at this point a wireless switch for stairway lighting is still questionable and at part 1.

Action: ITEM PENDING

IV - PRESENTATIONS

PRESENTATION BY LARRY CANTELO – NAIT (Solar Power/Wind Generation)

Carl Duchene questioned the system generating power with no type of disconnect at the source of power. If a fire broke out in a building with this system connected you could have a fire fighter entering this building with live conductors as long as the sun is shining. Carl felt that this is a dangerous system, some one could be electrocuted.

Stan announced that there will be a presentation by Gordon Howell, for Connecting to the Grid, regarding regulation applicable, 7:00 PM on February 10 at the Telus World Science Center 142 St and 111 Ave.

LUNCH

DOOR PRIZE DRAWS

II Agenda Items

**Agenda Item# 2009ag-03 Enforcement of 2-024 approved equipment
– submitted by Gord Graham**

Don read the submission, when is the government of Alberta going to start to enforce this regulation?

Discussion: Authorities having jurisdiction are expected to provide this service for the government. we have the authority under the Safety Codes Act to do some thing about this, we can issue an order, or we can refuse the product, depends on the circumstances, there are provisions in place right now, secondly it would appear that some people are approaching certification bodies to get there product approved. Dennis Smith commented that there is a problem with stores selling unapproved

equipment, in the past the government used to go out on spot checks to ensure all equipment sold was certified, I don't think that is happening anymore. Michael Chledowski are we going to now have to go back to all the houses that had interlock controls installed in junction boxes over the last 10 year to have them certified.
It is up to the SCO on site to make the call.

Action: ITEM CLOSED INFORMATION ONLY

Agenda Item# 2009ag-04 CEC section 2 submitted by Don Bradshaw

Discussion: Don Bradshaw submitted this item because panel boards are being used as a bulletin board. I have run across panels where there is no room to place my label because all other disciplines have beat me to it. These labels are blocking the mandatory electrical safety labels.
Pierre commented that if this was to be put in the code under Part 1 it probably would be rejected because it is trying to prevent other disciplines from defacing the electrical panel.
Stan asked what some of the other provinces are doing, Saskatchewan commented that they have not addressed this item at all.
Don Letcher suggested that this seems to be an Alberta problem because of the way the system is set up and suggested that we should submit this to the Electrical Technical Council with the rest of the coordinating committees involved to make up a standata for all disciplines.
Ken Butler noted that Alberta Municipal Affairs is the one that is asking us to put our stickers on the panel for future monitoring.
Lou Greco advised that there is not a problem in Calgary, the builder supplies an envelope so that all disciplines can insert there paper work in the envelope supplied. This is on new projects, if an electrical contractor is doing renovations or additions etc there is no envelop supplied, they would use a label on the panel.

Action: CARRIED FORWARD TO THE CE CODE COMMITTEE.

Agenda Item# 2007ag-05 CEC 6-300 & Table 19 service entrance cable submitted by major municipalities & Dennis Smith – Accucode Inspections

Don read the submission; Can we stop the use of USEB cable within a building? Should an un-fused USEB or TECH cable be permitted in an insulated wall between the meter socket and the open floor joist?

Discussion: Don indicated that he could not get any evidence that there is a problem in other provinces with this subject.
The problems is the use of the cable past the meter socket, bending radius, run in a conduit, strapping etc. Cable run out of the back of the meter socket requires a sharp bend. Carl Duchene added that a couple of years ago there where videos shown of some of the failures of these cables, so there is a problem. Wendy Nixon commented that EPCOR did not have problems when the utility where installing these cables, in the last 10 years or so there are unqualified people running the

cables in the trench that have no idea how to do so. Noel LaChasseur commented that the utilities run USEB cable on their poles, to the meter and junction boxes etc and now contractors seem to think they can do the same. Pierre McDonald advised that 6-300 allows the use of USEB for this purpose. It says that you can run the cable from the transformer to the service box, without splice unless it is at the meter socket. Dennis Smith added that the concern he has is with running in an insulated wall, most contractors use air nailer and could nail the cable in an insulated wall, there is no problem running the cable in the joist space directly to the panel. John Biollo advised that he sat on the ETC when this was brought up 10 years ago and it is allowed under 6-300, you need to put in a submission to change part 1 of the code. Lou Greco added that this was his original submission a few years ago. Lou would like to clarify this rule, either you can use it or not at all. Calgary has been allowing it in the house. Lou agreed that it should be changed at Part 1. Pierre confirmed that if we want it changed we need to put in a submission to Part 1. Saskatchewan does not allow the use of USEB from the meter socket to the panel unless it is run underground and protected where it is exposed. Joe Messmer added that some years ago it took about 50 years to change anything less than rigid steel conduit only for service equipment. Carl Duchene commented that he has investigated hundreds of failures of USEB installations and these installations are installed incorrectly. Don Bradshaw added that in the new code there is a requirement to provide for settlement for service conduit etc. Ken also added that the utility is saying that they will not install the service USEB cable in the service conduit if the ground wire is in the conduit, they say they cannot push the cable in the conduit with a ground wire in it. Michael Chledowski added that the service conduit is for the utility and the ground conductor should be installed in its own conduit and USEB cable should be used for underground installations to the service only.

Action: Closed

**Agenda Item# 2009ag-06 CEC 10-406 non-metallic watering bowls
submitted by John Biollo**

Don Bradshaw introduced this item; there are non-metallic watering bowls (for Livestock) and watering bowls where the heating element is totally enclosed with epoxy. Where would you connect a #6 bonding conductor?

Discussion: John commented that there are all types of waterers out there, fiberglass, concrete, plastic. What are we to do with the ground conductor if there are no metal water lines or metallic waterers. Rene Leduc added that rule 10-402 (4) which deals with livestock waterers. I do not think you can disregard the ground completely. John advised that maybe this be revisited by the Section 10 committee to take a close look at these rules. Rene suggested that a proposal be submitted in writing to section 10. David Ringutte suggested that maybe a ground fault breaker be installed on this type of waterer. IF NON-metallic a bond conductor is not required.

Action: Closed for Info only

Agenda Item# 2009aq-07 Use of non-approved conduit for traffic signals - submitted by Scott Hutton – Highline Electrical

Don Bradshaw read the submission; It would seem that some municipalities and contractors continue to use poly tube (polyethylene plastic) as a raceway for underground conductors.

Discussion: Pierre McDonald advised that he has consulted with all the rest of the provinces to see what they do and NB says yes, NWT says yes, Sask yes, Ont, Yes, PEI yes, NS yes, Yukon have there own regulation, Nunivak said they do not have any traffic light but if they did it would have to follow CE Code. Stan suggested maybe we should have a separate section in the code to cover this subject. Stan asked if the municipalities are asking for Permits, Calgary – if the city owns it, no permit required, Red Deer – if the city owns it no permit required, Grande Prairie – permit required, Edmonton – permits required for all traffic signals, Lethbridge – Utility installed no permit required, Alberta – province does not own any traffic signal equipment, all traffic signals follow the CEC. Rene Leduc suggested that for this section the executive committee may be the option, submit a written submission. Don Bradshaw suggested that maybe this subject is fine the way it is, should we pursue this any further or leave as is. Suggestion from the floor was to continue the inquiry and further pursue it for clarification. Don advised that the second question regarding the use of polytube has been answered already. Dan Niven confirmed that yes poly tube can be used as mechanical protection only.

Action: INFORMATION ITEM CLOSED

Agenda Item# 2009aq-08 CEC 12-500 – NMSC insulation - submitted by Zoltan Nagy

Don Bradshaw read the submission for Zolly, common practice is to staple 2-3 wire cables under one staple or 1 – 2 wires on edge and 1 – 3 wire under one staple.

Discussion: Stan added that the Part 2 standards code states the number of cables that can be stapled under a staple but every municipality calls it differently. Don Letcher stated that from his experience with stapling cables he is yet to see a cable that does not get marked when it is stapled no matter if it is a single cable. Lou Greco stated that he has experienced that one cable should only be stapled under one staple. Iberville has a chart which tells you how many cables under what type of staple being used, the staples are designed for one cable only. Ken Butler stated when he inspects a job and he cannot move the cable under the staple, then it is to tight. Stan asked the group where we should go with this and it was agreed that the subject would be filed as information.

Action: Information – ITEM CLOSED INFORMATION ONLY.

Agenda Item# 2009aq-09 CEC 26-712 Porch receptacles – submitted by major municipalities

Don Bradshaw introduced this subject and indicated that the inquiry was; can the same receptacle also be used as the outdoor receptacle if it is on a dedicated circuit and GFCI protected and accessible from the ground or grade level?

Discussion: *If a receptacle is accessible from grade it must be GFI protected and as long as there is at least one outside receptacle on a dedicated GFI circuit. Any additional receptacles that are not accessible from grade do not have to be on a GFI dedicated circuit. There is no definition of a Porch in the CEC, therefore, it was agreed that if there is a receptacle located in a porch, as long as it is not accessible from grade it does not require to be on the GFI dedicated circuit.*

Action: ITEM CLOSED INFORMATION ONLY

V. Committee Reports

Rene Leduc - Oil & Gas committee – the committee meet once last year, the changes made where editorial, the committee names where updated. The next change was clarification of the allowance of the tap off that must be taken off the load side of the breaker or switch. The committee met on May 12, 2008 and will be meeting on April 30, 2009 this year. Anyone that has a concern or change is encouraged to send in any items to Pierre so they could be discussed at the meeting. Oil tank heaters were discussed, the heater was installed in the tank with a cover. Secondary seals where also discussed. Diagram B16 was discussed, the building has been omitted from the diagram. There were some questions of grounding and bonding of drilling rigs, it was found that the existing standata was sufficient to cover this.

OBIEIC – Objective Based Industrial Electrical Code - This a status report on the objective based code, its been a long process to get these documents published, there are two documents, the first document is the Objective based code which is based on the IEC standards 60364 principals of electrical safety chapter 13, the second document is the safety management system requirements. These document are being sold through CSA . Just to give you an idea of the time spent on these documents it is 8000 man hours or 1.5 million dollars in volunteer effort. At the last ETC meeting there is a motion passed to recommend legislation to adopt the Objective Based Code. There are industries out there interested in trying this code, and are looking at it.

Question from the floor, I do not understand why someone would create such a code if we already have a code that has been in use for ever, how will this benefit all of us or is this basically for big industry only. Rene replied that if some one can come up with a good safe installation would be an alternative to the current code. Here in Alberta we have in place, a variance if we want to deviate a little from the code. With the new Objective Based Code you would not be required to issue variances.

Stan Misyk - CE Code Advisory committee – we had one meeting last year, the items discussed where:

- *patient care areas, clarification was made and a standata went out.*
- *Temporary construction power receptacles was discussed forwarded to the ETC with a clarification returned.*
- *Island receptacles was discussed, forwarded to the AEICTC, ETC and a clarification was returned, a standata was written to clarify,*
- *Use of connectors in cable tray, a recommendation was made to the ETC and the item returned as status quo*

Stan added that he is now the new chairman of the CE Code Advisory Committee and Len Elford is a new member.

COFFEE BREAK

IV PRESENTATIONS

Terry Becker – ESPS (CSA Z462) ARC FLASH

Terry gave the group a break down of the things to consider while using the new Z462 Arc Flash code and reviewed some of the obvious issues with arc flash equipment and personal protective clothing he has come across while conduction arc flash audits. Terry also informed the group that the CSA Z462 code is not legislated yet and may never be, but it is a good document and strongly suggested that the industry use it.

Questions: Ray Ciscio from Occupational Health and Safety informed the group that what has been talked about was safety of electrical workers but it should also protect other workers.

Ken Hood asked if when training is done the standard points to electrical workers, should we not be concerned with the safety of other workers. Ray indicated that the legislation for protective clothing does not specify electrical workers at all. It states where there is a hazard of Arc flash or flash fire a worker must be protected. The, there is arc flash that is happening, as a matter of fact last week there has been a fatality due to arc flash. At the moment the Z462 code is not legislated and will not be or may not be until the next edition of the OH&S code which will be 2012. The fact that the Z 462 is there and industry is aware of it, there may be reason to use it or you may choose not to work on live equipment. There is no need for the 462 code. Pierre McDonald indicated that it is a document that is recognized but not legislated by Municipal Affairs. Stan asked a question of the studies for analysis for arc flash calculation, based on the IEEE standard which was a document from the 1940's, is this correct. Terry informed Stan that it is correct, the formula has been around for 7 or 8 years was created by Stan Lee from the 1980's but didn't have any status until now and is there, you may calculate. This is up to the employer's due diligence on the use of this code to ensure that a level of safety has been provided.

V. Committee Reports

Rob Kohuch – CSA Report

Most recently CSA has published the 21st edition of the 2009 Canadian Electrical Code and have changed to a three year code cycle rather than a four year cycle as in the past. This is a requirement of the Standards Council of Canada which makes it easier to review the codes. Some of the new standards are being harmonized, into a common standard rather than each separately.

Paul Heide – Intertek Report

Intertek has the ETL mark and the Warnock Hersey mark, which is on most of your fire doors, Intertek is accredited to do testing for SP-1000 SI's. Intertek is now accredited to do electrical, Plumbing and Gas inspection on part 10 relocatable structures. You'll see the red label from Municipal Affairs, Intertek labels will be on the AMA label, it will be the WH label. There will be some changes to this program sometime in 2009. We are using the ETL markon equipment on hazardous location inspections, on the LPC program (Limited Product Certification), Intertek will come out and provide a label out in the field. Intertek is also accredited in 8277-08 manufactured buildings, modular homes, Z240MHNRV mobile homes and RV's and Z241 park model trailers.

DRAWS

Stan polled the group to see where we should conduct this meeting next year all agreed to have the conference here at the Chateau Louis Conference Center. Stan also thanked the volunteer's, sponsors and the vendors for attending and helping out with this years conference.

Meeting adjourned for the day at 5:00 P.M.

Saturday, February 7, 2008

II. AGENDA ITEMS

Agenda Item# 2009ag-10 CEC – 28-106 – submitted by Dan Green

Don Bradshaw read the inquiry; Industry standard is to use 100% rather than 125% when sizing cables for motors with or run by Variable Frequency Drives. Dan Green indicated that is not up to code if 100% is used, then how is Table 29 affected? Dan indicated that he felt that the code did not actually references the VFD's and he uses 125%.

Discussion: *Pierre McDonald spoke in regard to the standata which talks about harmonics, which is a problem, motor overheating, voltage dips, recommend that motors be rated for inverter use and should have permanent marking for inverter motors. New installations motors intended to be used on VFD's should be designed for use on these specific operations. Must be a kind and type rated for this application and compatible for use with the corresponding markings.*

Don indicated that the code requires 125% of the full load current is the minimum ampacity of the conductor. What is happening in the field is that conductors are being sized to 100% of the load rather than 125% for conductors.

Pierre added that the code is clear on the sizing of conductors for motor feeders to be sized at 125% of the full load current of the motor. The code does not reference VFD's, soft starts, etc when sizing conductors for motors.

Ivan Byer indicated that his experience with VFD's is that they can be overdriven by easily 15% and even more sometimes so the 125% rule should handle this.

Don Bradshaw stated that if this is not covered in Table 29 how do we handle this?

Michael Chledowski stated that most motors will have an overcurrent device so you should not have to use the motor load to oversize the conductor.

Action: *ITEM CLOSED, FOR INFORMATION ONLY.*

Agenda Item #2009ag-11 CEC 32-102 – submitted by Major Municipalities

Don Bradshaw read the submission, there is a 90' PVC adapter that when used for fire alarm, violates rule 32-102 which states if conductors of a fire alarm system are installed in electrical non-metallic tubing, it shall be embedded in a least 50mm of masonry or poured concrete.

Discussion: *Lou Greco stated that Calgary is asking for 50mm of concrete to be added when this adapter comes from a slab to a ceiling space.*

Stan added that this is in contravention to the code, no other comments where made from the floor so this item was for information only.

Action: *ITEM CLOSED. INFORMATION ONLY*

Agenda item # 2009ag-12 CEC 46-400 - submitted by Don Bradshaw

Don Bradshaw read his submission that in small occupancy commercial buildings, often install exit/emergency light combination units at the exits. The exits signs typically are not required by the building code. If they wish to place other loads, such as night lights on the same 120 volt circuit, the existing CEC rule will not allow that practice.

Discussion: Don also stated that his discussion with an engineer of one project told him that this was not an issue. The building code is a little more relaxed as far as this issue is concerned.

Stan commented that in the 21st edition of the CEC, in Appendix B, there is some information regarding this item, "This rule applies only to exit signs connected to an electrical circuit. Other requirements for exit signs, including those not connected to an electrical circuit, may be found in Section 3.4.5 of the National Building Code of Canada."

Dennis Smith added that in some of these small commercial buildings they install a combination unit that has the exit light and the emergency light built in, are these units approved. There is no way to separate the circuits in these types of units.

Ken Butler stated that if someone wants to add some thing over and above the code that is fine. If it does not meet the code and the owner removes the exit lights, you have a less safe system that if he had left the lights in place.

Carl Duchane stated that in the past, products where approved for down light and exit illumination, now with led lighting, it is a different situation.

Michael Chledowski stated that in 46-400 (2) it does state that not with standing sub rule 1 exit signs shall be permitted to be installed on the same circuit as emergency lighting in the area where the exits are.

Action: CARRIED FORWARD TO AEICTC FOR CLARIFICATION & RESEARCH THE CEC 2009

Agenda item # 2009ag-13 CEC Section 52 and 12 – submitted by Ken Hood

Don Bradshaw read the submission; which has a concern over no inspections of the electrical installation on communication towers as they are low voltage and did not require electrical permits.

Discussion: Ken Hood stated that these towers are not electrical, the installers are not electricians, they are communication people and they run communication cable up the tower 60' or and strap it by the use of tye-wraps.

Dan Niven informed the group that if it is strictly communications, our permit regulation states they do not need a permit but this does not mean that they do not have to follow the CEC.

Stan asked if the cable is an approved cable or is it a hybrid communication cable?

Ken stated that it is approved coax cable similar to tech cable.

Dennis Smith stated that in his area there are internet providers installing towers on private property with a power connection to it, complete with a meter, panel and a

fan in the cabinet. The home owner gets free hi speed internet for the use of his power. These towers are being installed all over the place and so far 2 permits have been issued.

Don stated that if electrical work is done, then a permit is required, if it is communication work only then a permit is not required but the code should be followed.

Don Letcher commented that with these types of tower installation the CRTC needs to be notified and possible transport Canada.

Don suggested that this item be forwarded to the task for working on the communications part of the code.

Action: FORWARD TO THE COMMUNICATION TASK FORCE REVIEW. INFORMATION

V. COMMITTEE REPORTS

Chief Inspectors Report – Pierre McDonald

2009 Canadian Electrical Code, consultation closes on February 26, 2009. there is a survey on the EIAA web site, all were encouraged to give their opinion. The forecasted adoption date should be September 1, 2009.

Secondary seals are now in the new code

Carbon monoxide detector is a requirement in Residential occupancies

Tamperproof receptacles have been mandated

TILMA will be in force as of April 1, 2009, this will allow a BC master to be able to pull a permit in Alberta and visa versa.

AIT (Apprenticeship and Industry Training) agreement is to work with TILMA and the Masters program.

AEICTC scheduled for June 10 along with the SCC conference in Banff.

Standata's Issued – April 2008 section 18, Section 30, section 62, recall notices will not be sent out anymore, they are available on the CSA web site. Electrical Safety Authority ESA, and the Consumer Product Safety Commission.

October Standata added special inspection body Section 2, arc flash labels rule 2-306,

Oil & Gas Code was adopted, errata, note SCC phone # is not the SCC number, do not use this number.

Code issues which came forward; arc fault receptacle for sump pump in bedroom, peninsula receptacle, Temporary GFCI outlets, tray cable connectors is at Part 1 Variances 2007- 88 electrical variances where issued, 22 where on secondary seals, 2008 variances are not available yet.

Question from Michael Chledowski asked why we could not ask the general contractor not to put the sump in the bedroom. Pierre indicated that when this rule gets clarified it will not matter where the sump is located.

Don Bradshaw commented that there are no grace period to when the code is adopted, your threading on thin ice if you allow a grace period.

Pierre clarified that there are no grace periods allowed, when the code is adopted is the day you need to start using the new code.

Don asked if there could be a button to press to print all the Standata's rather than printing each standata separately. Pierre indicated that he would forward that

question to the support people to see if that is possible, generally you have all the Standata's and only need to update the new ones.

ETC Committee Report – Pierre McDonald

Four meetings were held in the past year, issues dealt with; relocatable structures, code cycle, permit regulation, the guide book which came into force April 1, 2008, the guide can be obtained from AMA's web site. Transfer of lightning protection to the CEC is going on, Electrical Safety Codes qualifications was revisited, sub metering, installing CT's, Standata's, Electrical Group B training is coming up, all Group B SCO's need to get the training within a year. Cathodic protection was discussed, an application was submitted to become an occupation.

John Biollo commented that he was on the task force and the cathodic people were responsible for the DC side of the installation only. The task force recommendation was to get recognized as an occupation then this would allow them to work on the DC side of cathodic protection.

Clem Grattonas a member of the ATC commented that the members of the ETC was that they could write the order if this wasn't adhered to.

Utility Report – Mike Gardner

2010 overhead & underground standards will be balloted in June, the underground amendments were brought forward from the CEC. CSA is saying that after the 2010 amendments, it could be some time before they will revise the standard in the future.

Electrical Incident Report will not be ready until some time in March 2009, there are still some outstanding reports that are not sent in yet. They will be available on AMA's web site some time in early June.

The standard for distributed energy, wind, solar and hydro, that standard is ongoing, and there is a rough draft from the working groups.

The Lightning Protection standard B72 is going to be replaced with the new standard with Canadian Amendments and will be in the 2012 code.

Question from the floor, where can a person purchase a copy of the Oil & Gas Code? Answer; from the Learning Resource Center.

Dennis Smith asked about the Lightning Code B72, Mike stated that this code is outdated and requires an update to IEC standard and will be part of the CEC.

Clem Gratton commented that some utility companies in the north east are asking for stand offs on overhead poles that are not consistent within the area.

Michael Chledowski added that the same utility are not consistent and have a different set of rules. Is there any way this could be consistent across the province.

Walter Chledowski commented that the Grande Prairie inspection department has a good relationship with the utility and they have a handbook with diagrams that is easy to follow.

Fire Report – Carl Duchane

Carl gave an overview of some of the electrical fires in and around the Edmonton area, some of these related to appliances and recalls. Square D has been hit the hardest in the counterfeit world. These breakers look identical than the original ones, but does not operate as well. A number of heat tracing fires have been reported this year. A lot of fires on metal halide lamps, some of the industries never turn there lamps of, there on 24 hours a day, the lamp gets so hot that they explode. It may be a good idea to have a glass lens on the bottom of the fixture and suggest that at some time during the day or night these lamps should be shut down and allowed to cool. Arc fault event happened here in Northern Alberta last year and the electrical contractor rebuilt the service to a 600 amp. Compact fluorescent fires are on the down stream.

The CFL bulbs are designed to fail after a certain amount of time, 10,000 hours or so.

Ken Butler stated that heat tracing has been put in down spouts and all sorts of thing and now maintenance has to be done yearly. Carl clarified that they should be meggered once a year.

Ken added that metal halide lamps should not be used, they seem to be a problem, we should not be using them. Carl confirmed that as long as they are shut off occasionally they are fine.

John Biollo asked Carl if he has had any problems with the CFL bulbs being recalled because of the bulb separating at the base and the radiation they give off.

Joe Messmer commented that in the past with single phasing, the utility can work with the consumer to install a system to protect equipment.

Pierre McDonald commented that all the fires he mentioned, the code states that any fire of an electrical origin shall be reported to the administrator, we are not getting these reports.

Carl explained that these are to be reported to the Fire Commissioners office and should be relayed to the administrator and I'm not sure if this is being done, Some thing has to be done with the way the reporting is done presently.

DRAWS

COFFEE BREAK

IV. PRESENTATIONS

Ed Hodson- Operations Manager for Western Canada - ITS & Paul Heide – Intertek

Paul and Ed spoke to the recognition of proper marks on products. If there is a product that you feel is not right you can check it on the Intertek web site, the ULC web site or the CSA web site. If the product marking is not right you can submit a product incident report to the Intertek certification department. Caution is to be taken especially in hazardous locations, some times contractors will cut a hole in the panel and install a light on it, this will void the certification on that device so report these types of things via the incident report form on line. Be careful of the steam showers, there are several out there that are not certified.

Stan asked Paul that any certified product that is modified loses its certification but what about any plug in component that could be added. Paul replied that the plug in component must be certified to be added the original component.

Mike Gardner asked about a hot tub spa pack that may have certification of the spa pack only. Paul advised that the whole assembly has to be certified as a unit.

Gene Sale' asked about the old commander panelboards that are obsolete, if a different breaker that fits is installed how should they be certified, so you come out and do that. Paul advised that they could come out and do an onsite inspection to approve these units provided it meets the required applicable standards.

Brian Savaria – Eaton Corp., (Anti-Counterfeiting & Product Miss-Application)

Brian gave a presentation on 3 types of counterfeit products; Chinese knock offs, used tampered and relabeled breaker and diverted authentic products, where old breakers are purchased by the pound and relabeled.

Stan gave a brief review of how to spot a counterfeit label to report it to Brian and his staff.

Jim Forth asked who was charged in these cases where they contractors? Brian advised that they are brought in by the skid load overseas, and retrofitted and a new label put on.

Don Letcher asked if these breakers have made there way out to western Canada say west of Winnipeg. Brian advised that the closest they came is Regina and they where the QBH type which came from Trinidad. The only place these breakers where sold was in the Caribbean and Canada.

Ken Butler noted that Brian's picture showed these counterfeit breakers in panels and they where energized,

II. AGENDA ITEMS

Agenda Item #2009ag-14 CEC 76-016 – submitted by Dennis Smith

Don read the submission; Electrical services installed on basement walls with receptacle for construction power. Are these services "temporary Services"? The contractors in our area are saying that these services are permanent installations therefore they do not come under CEC 76-016 requiring 15 and 20 amp receptacles to be GFCI protected. A poll was taken and about half the group is asking for a GFCI on the receptacle near the panel in the basement of a home.

Discussion: *Dennis Smith advised that they are asking for it but the contractors are refusing to install it.*

Pierre McDonald advised that the wording in the code is subjective, we are trying to get part 1 to change the wording to have a GFCI on any receptacle used for construction. The rule is what it is and if the contractor does not comply write him an order and he can appeal it.

Carl Duchane added that he thought that there may be some help in this area with the OH&S people, I'm sure they would agree to call for a GFCI.

Don Letcher stated that he feels strongly toward this issue, he has seen a flooded basement with cords stretched all over the place.

Michael Chledowski added that maybe this could be communicated over the ECAA web site.

Clem Gratton added that it would be easy to communicate this through the ECAA web site. Clem felt that the basement receptacle near the panel is a permanent outlet so it would be hard to enforce this.

Action: CLOSED FOR INFORMATION ONLY

Agenda Item #2009ag-15 CEC Section 80

Stan Misyk read the submission; are municipalities/agencies seeing permits for and inspecting the DC side of Cathodic Protection systems. It is required to inspect both the AC and DC site of the connection.

Discussion: *Pierre McDonald reiterated that a permit is required on both the AC and DC side of Cathodic Protection and a letter will be going out to industry that permits are required and if not an order will be written.*

Action: ITEM CLOSED, INFORMATION ONLY

GENERAL

Clem Gratton indicated that he was grateful that the agenda items were e-mailed prior to the meeting giving him a chance to review the subjects ahead of time. Stan informed the group that anyone that registration early got the package earlier, anyone that paid at the door received their package at the door. The Safety Codes Council has supported us and have provided a mail out to all, about 400, how many would require a mail out rather than e-mail. The group agreed on e-mail only for next year. Lou Greco stated that he will e-mail everyone on this year's list about next year conference, as long as he has your e-mail address you will be getting an e-mail. If you want to be taken off the e-mail list and do not want to receive e-mails, just send Lou a note and he will remove you from the list.

IV. PRESENTATION

Lou Greco – Fault Currents *Lou gave a presentation on fault currents, and informed the group that in Calgary all contractors are required to submit drawings if the service is greater than 600 amp. This is his interpretation of fault currents, most contractors do not understand fault currents. Larry Cantello noted that the formula in Lou's presentation where it reads impedance, should be % impedance, and the next calculations should be the % impedance expressed as a decimal. Stan asked Lou if he could make sure the changes be made before the presentation is mailed out with the minutes.*

Stan informed the group that Don has some EIAA hats for sale here for \$10 each, thanked everyone again for attending the conference and reminded everyone to make sure to hand in their critique sheets.

Final Draws

Meeting adjourned at 12:20 P.M.