SUMMARY

Electrical Advisory Board
Thursday, December 5, 2019
9:00A.M.
Tejas B Conference Room, CPIII
600 Six Flags Drive, Arlington, Texas 76011

Chair: James Hathorne, City of Irving
Vice Chair: Jeff McCabe, City of Dallas

1. Welcome and Introductions.

ACTION ITEMS

2. Electrical Advisory Board FY2020 Appointments. The FY2020 membership terms begins on October 1, 2019.

   Members confirmed as no longer on the EAB, due to retirement, relocation, or ability to attend meetings:
   - Ismael “Izzy” Rivera, Jr., Bill McGovern, Gary Jones

   Members changed from public sector to private sector: Chris Valtierra

   New members nominated and voted on for membership on the EAB:
   - Tracy Moreno, P.E., Principal Engineer, ELS Engineering
   - Wayne Smith, Chief Building Official, City of Decatur
   - Roosevelt Fortson, Inspections Services Supervisor, City of Plano
   - Carl Spangler, Inspection Supervisor, City of Fort Worth

3. Approval Sought for Appointment of EAB Officers. Gary Jones served as the Chair with Rick Ripley, City of Arlington, serving as Vice-Chair. NOTE: The Regional Codes Coordinating Council will vote on membership appointments and officers at their January 2020 meeting.

   - James Hathorne, City of Irving, nominated and voted to the position of Chair of the EAB.
   - Jeff McCabe, City of Dallas, nominated and voted to the position of Vice-Chair of the EAB.


   Members went over the existing 2017 amendments, reviewing 1) what do we carry forward, 2) what do we eliminate, or 3) what do we have new for 2020. The Committee also reviewed the format of the amendments.
5. **2020 National Electrical Code.** Discussion for reviewing the 2020 National Electrical Code. Members chose to divide into subcommittees based on location. The four locations are as follows:
   - Group/Chapters 1&2: meeting in Plano
   - Group/Chapters 3&4: meeting in Fort Worth
   - Group/Chapters 5&6: meeting in Irving
   - Group/Chapters 7&8: meeting in Dallas
Members will review the 2020 (not the 2017) NEC chapters and bring the results of their subcommittee meetings to the monthly EAB meeting.

INFORMATION ITEMS

OTHER BUSINESS AND ROUNDTABLE DISCUSSION

6. **Future Agenda Items.**
   Please see attachments for list of topics brought forward by James Hathorne.

7. **Roundtable Topics/Other Business.** Electrical Advisory Board members and NCTCOG staff may share additional items of interest as time allows.

8. **Schedule for the Next Electrical Advisory Board Meeting.** The next Electrical Advisory Board meeting is TBD.
   - The EAB voted to have monthly meetings. The next meeting is Tuesday, January 28, 2020, at 9:00 in the Tejas B Conference Room, Centerpoint III, 600 Six Flags Drive

If you plan to attend this public meeting and you have a disability that requires special arrangements at the meeting, please contact Barbara Bradford by phone at (817) 695-9231 or by email at bbradford@nctcog.org 72 hours in advance of the meeting. Reasonable accommodations will be made to assist your needs.
1. **ROUNDTABLE/OTHER BUSINESS SUCH AS,**
   - Emergency Disconnects 230.85 /
     - NEMA 3 panelboards:
       - Male Adaptors Used for Entry Of Homeruns & SER Cables
       - Water Protection
       - Sealing Up Male Adapter Penetrations Into The Wall Cavity
     - Service Changes
       - Old Meter Bases with Unfused S E Cables To Panels/Lode Centers Within Closets
     - How will each City enforce the 230.85 On Service Changes
       - Upgrades
       - Repair
       - Storm Damage
   - **If Code Making Panel 4 wanted an AHJ to have Exterior Emergency Disconnect(s) for service changes, upgrades, and storm damage they would have included specific language. The same Code Making Panel did, as an example, included such a requirement in NEC section 230.67 Surge Protection.** (D)
   - Replacement. Where service equipment is replaced, all of the requirements of this section shall apply.
   - The same Code Making Panel 4 had the option, at the same time, to include this type of directive in NEC section 230.85, but has omitted any such wording.
   - Fire Pumps
     - 695.6 A 1 Exception
     - Service Entrance Conductors Are Allowed Enter A Fire Pump Room Without Complying With 230.6 1 Or 2 if the room is 2-Hr Rated
     - If this application is allowed, what are the issues?
       - Room decks are not rated
       - Service entrance conductors does not comply with entry without overcurrent protection per 230.70 A 1
       - Some locations could enter Fire pump rooms that could be 25’ up to 60 or 75’ without overcurrent and high to very high Fault Current
         - Fault Current Downtown Dallas 100,000 up to 190,000
         - Fault Current Downtown Fort Worth 100,000 up to 190,000 or 200,000
         - Each entering without protection that would accomplish location and arrangement so as to minimize the possibility of damage by fire from within the premise and from exposing hazards
What is the best case scenario to achieve this?

23.06 1 or 2

A Fire Pump room could have walls that are Fire Rated but not secure roof deck from collapse

- Roof decks in the high percentage of buildings constructed bar joist and pan desk ing

695.6 A 2 Feeders would require protection from potential damage by fire, structural failure or operational accident

- Feeders would not be required to be protected with Fire pump rooms also according Exception to 695.6 A 2 4

- This ec=exception and the previous exception does not account for failure before the pump could have opportunity to suppress a fire

Jerry Daniel and expedited complaint on problematic contractors

Qualified Licensed Electricians Onsite

House Bill2439

- Restrictive On Amendments and Code Applications
- What does this H B Mean

Solar-Generator-Energy Storage.

- Problematic Issues with
  - 690
    - Permanent marking
    - Layout
    - Electrode Conductor and Bonding bushings with jumpers
      250.64 E
    - Attic supporting
    - Disconnect Grouping
  - 710
    - Stand Alone
    - Permitting
    - Plan Review
    - Inspections

Generator Installations

- Problematic Areas
- Residential Installations
  - Transfer Switches Installed on Old Service
  - 100 or 125 amp Risers with 200 amp Main Transfer Switches
• Risers, Meterbases and Service Entrance Conductors Not Increasing to Correspond To The New Rated Transfer Switches
• Existing 100 or 125 amp Load Centers Becoming Feed/Sub Panels under 200 Amp Transfer switches
  ▪ 702.4 Capacity
    ▪ 702.4 B 2
    ▪ Requesting a Load Calculation To Affirm The Capacity of the Generator
  ➢ Commercial Installation
• Heavy Timber
  ➢ Any concerns
  ➢ N M Cable Use
  ➢ Uses Permitted/ Not Permitted
    ▪ 334 10
    ▪ 334.12
    ▪ Building Types III, IV< V
  ➢
• Uses Permitted For Cords 400
  ➢ Varidesk
  ➢ No Outlets Installed For General Use
  ➢ All receptacles are installed on the ceiling for S O Cord
  ➢ Use of a Temporary Construction Distribution Rec
• Wireways And Gutters
  ➢ Gutter Deflections Not According To 314.28
  ➢ Wireways have to comply 314.28
• Smile Direct/ Invisalign
  ➢ Equipment Medical, Area Construction Medical But Not Wired to Comply with 517
• Listing, Labeling And Marked Equipment
  ➢ Problematic Areas
  ➢ Used, Previously Used and Salvaged Equipment
  ➢ IBC reference to Used Equipment
  ➢ Back Lighted Mirrors
    ▪ Hotels
    ▪
  ➢
• Qualified Designers, Designs and Engineering

• Supporting of Cables NEC 700 & 800
• What type of relationship does your position have with your Fire Department, Fire Marshall and Fire Inspectors for Mutual Aid on issues
# MEMBER SIGN IN SHEET

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*Signature*

- Carl Sprangler
- Calvin Webb
- Troy Kress
- Marilyn Fowser

*City*

- City of Fort Worth
- City of Dallas
- City of Frisco

*Date*

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