Date: 05Dec2017.
Location: Santa Ana Elks Lodge, 212 S. Elk Lane, Santa Ana, California.
Called to order by Henry Martinez at 11:53 a. m.

Self introductions by new or long-absent attendees: Ray Beltran with the City of Orange and Chris Perry with HMT Electric.

Minutes for November were approved without dissent.

**Treasurers Report**
The Treasurer's report was given by Henry Martinez.

**Membership Comm. Report**
Tom Griffith reported a total of 119 members; 54 inspectors and 50 associates. (Report delivered after Manufacturer Time.)

**Old Business**
Tom Griffith reminded the group of the Southwestern Section meeting is August 26 – August 30, 2018.

**New Business**
None addressed.

**Code Questions**
Jerry Schreiber with the City of Long Beach presented a question about required working space in front of a 30 kVA transformer with multiple taps. The general response was that, if the transformer has multiple Voltage taps, working space must be provided so that tap Voltage can be measured while the transformer is energized. Scott Davis advised that standard structural details for hanging transformers may be found in Kindorf or Unistrut catalogs.

Charles Valaer with the City of Glendale spoke regarding a multifamily-building service: the utility (Glendale Water and Power) requires a lockable disconnect before the meter; the utility has rejected the installed Siemens Powermod because it does not provide an effective lock-off function when a Glendale Water and Power standard lock is installed, although it is effective when a larger lock is installed. Scott Davis suggested that it be determined whether or not the equipment had EUSERC approval.

Henry Martinez (City of Brea) spoke about the installation of medium-base lamps in chandeliers of residential occupancies: in these situations, the Energy Code accepts non-recessed luminaires with medium-base sockets, as long as the lamps are "JA8" certified.

Scott Davis spoke about an LED retrofit kit for a Halo H7 recessed luminaire: the kit obtains power via a base that screws into the medium-base socket of the luminaire, but removing the original trim includes removing the existing medium-base socket; so, the socket must be removed from the trim and re-installed in the recessed housing (somehow); also, the instructions have a list of 45 recessed housings for which the kit may be used, but it is not possible to determine which type of housing is installed once the original installation is complete.

Scott Davis spoke about a power outage at home that went on for more than 20 hours: after a few hours, the smoke alarms started chirping because the batteries were exhausted; removed the batteries, but two of the alarms chirped for two hours (why only two?). Charles Valaer commented that he had experienced such post-battery-removal chirping for several hours.

Charles Valaer with Glendale spoke about the issues encountered when using an existing residential service as a sub-panel. Scott Davis remarked that the City of Santa Ana requires that a main breaker at the existing service be used for the feeder connection.

**Inspector Time**

None taken.
**Contractor Time**

Tom Kelly with Kelly Electric asked about installing a receptacle next to a fire-place fire box: does the installation of a receptacle within 12" of the fire box violate the building code clearance-from-combustible requirement? Discussion followed on what hazards may be presented if a receptacle were so installed, even though it may not be a specific code violation.

**Manufacturer Time**

None taken.

**Utility Time**

None taken.

**Testing Lab Time**

None taken.

**Consultant Time**

Dan Vaughan, P.E. asked the group for opinions on providing air conditioning for electrical rooms in areas where high ambient temperatures are common. Keith Johnson with Eaton explained that the 40ºC maximum ambient allowed for switchboards is based on 24 continuous hours of test; and, since ambient greatly reduces at night, air conditioning is not necessary. Keith added that his counterpart in New Mexico and Arizona stated that air conditioning is not provided in those environments.

Dan Vaughan went on to speak about a fatality which was the subject of an EC&M Magazine article. He stressed the importance of bonding for protection against electrocution. Tom Kelly commented that cast conduit fittings easily break during use, causing the loss of the bonding circuit. Henry Martinez added that there was an article in last month's IAEI Magazine about this issue of bonding.

**Education Program: Electrical Code Changes for Commercial Occupancies**

Presented by Scott Davis.

began at 12:50 p.m.

Scott spoke about the requirements in the following NEC sections.

110.16 Arc-Flash Hazard
110.21(B) Field -Applied Hazard Markings
110.26(C)(3) Personnel Doors.
110.26(E)(2) Dedicated Equipment Space.

200.4(B) Neutral Conductors for Multiple Circuits.

210.8(B)(8) GFCI: Garages, Service Bays, and Similar Areas.
210.64 Electrical Service Areas.

240.21(B)(1) Feeder Taps Not Over 3 m (10ft.) Long. (Sized per rating of the equipment.)
(Cannot use next-size-up for taps.) Exception for surge-protective equipment.

250.102(C)(1) Sizing Supply-Side Bonding Jumpers.

250.122(B) Equipment Grounding Conductor Increased in Size.

430.130(G(1) Disconnecting Means.

422.5 GFCI Protection (Appliances).

422.51 Vending Machines.

445.18 Disconnecting Means Required for Generators. (Must have means to lock open.)

450.10 Grounding (Transformers) (Ground bar required in a transformer.)
450.11 Marking (Transformers). (Bi-Directional.)

590.4(D)(2) Receptacles in Wet Locations (Temporary Installations).
590.4(I) Terminations at Devices (Temporary Installations).
590.4(J) Support (Temporary Installations).

Minutes respectfully submitted by Dan Vaughan.