MINUTES
Orange Empire Division
International Association of Electrical Inspectors

Date: 05Sep2017.
Location: Santa Ana Elks Lodge, 212 S. Elk Lane, Santa Ana, California.
Called to order by Tom Griffith at 11:53 a.m.

Self introductions by new attendees: Manny Villa, a new combination inspector with City of Santa Ana; Jerry Ball, a pool contractor from Santa Barbara.

Approval of minutes for May and June was without dissent.

Treasurers Report
The Treasurer’s report was postponed.

Membership Comm. Report
Tom Griffith reported that there are 116 active members in the Orange Empire Division, of which 53 are inspector members and 48 are associate members.

Old Business
Tom spoke highly about the Southwestern Section meeting.

New Business
Tom Griffith announced that sign-ups are open for next year's Southwestern Section meeting to be held at a resort in Sparks, Nevada. (iaeisw.com)

Code Questions
Scott Davis with the City of Santa Ana spoke about a question, submitted by Henry Martinez of the City of Brea, asking if inspectors were accepting or adopting the TIA for section 705.12(D) re-center-fed panels. Scott stated that the City of Santa Ana has not adopted any TIA, but that there are some AHJs that do allow installations per the TIA. Ben Ellingson with the City of Newport Beach stated that he allowed it with an Engineer's stamp.

**Inspector Time**
None taken.

**Contractor Time**
Tom Kelly of Kelly Electric asked for confirmation that the wording in the NEC about the "...paralleling efficiency..." [250.53(A)(3)] of driven rods is an informational note rather than a Code requirement. Scott confirmed that it is an informational note, and then went on to suggest that it will be a requirement in future Code editions. That issue was originally proposed as a result of Southern California IAEI field testing led by George Anchales.

Tom Kelly also asked if the "...listed branch-circuit overcurrent protective device..." mentioned in section 210.12(A)(4) could be an ordinary circuit breaker or must be an arc-fault type breaker. Scott suggested that the installation instructions for the AFCI device would state the type of breaker that is to be installed for the circuit.

**Consultant Time**
An attendee asked about Code addressing EMF (electro-magnetic fields). Scott Davis opined that there are none, but suggested that one look at the SCE guidelines in their ESR, e.g. not locating distribution equipment close to a headboard in a bedroom.

**Manufacturer Time**
Ben Abrishami with Eaton Corporation told the group of free apps provided by Eaton: fuse finder and short-circuit-current calculator.

**Utility Time**
Gilbert Aceves with SCE asked if any AHJs have seen Tesla/Solar City "gateway" (type of automatic transfer switch with batteries) installations on solar panels or electrical panels. Scott Davis said he had seen it on plans, but requested more information. Gilbert added that, right now, SCE in not accepting the "gateways" but are still looking at it.
Tom Kelly of Kelly Electric asked if overhead service-entrance conduits must go through the roof, even if not doing so provides adequate vertical clearance for the overhead drop (with the cable secured to the building at a point below the roof). Gilbert (SCE) responded that the conduit is required to be above the roof.

Tom Griffith mentioned that Tesla reps will come down from San Francisco to talk about their products.

**Testing Lab Time**
None taken.

Tom Griffith turned the meeting over to Scott Davis.

**Education Program: Analysis of Changes, 2014 NEC.**
Presented by Scott Davis.
began at 12:33 p.m.

Scott showed a record of drownings and touted an article by Randy Hunter about Article 680 (available on the IAEI website). He provided a cheat sheet for pool inspections.

2017 NEC will have part VII for lifts at pools.

680.4 Listed & 680.14 Corrosive. (New in the 2017: Pool-related areas are considered Corrosive Environments.)

Scott spoke about the following Code sections.
680.2 Definitions: ...Storable/Portable Spas and Hot Tubs; Low-Voltage Contact Limit.
680.7 Cord and Plug Connected (other than underwater luminaires. (A) Length, <3 feet.
680.3 Other Articles.
680.9(A) Power Conductors Over Swimming Pools and Similar Structures.
680.10 Underground Wiring Location.
680.11 Underground Pool Wiring.
680.12 Maintenance Disconnecting Means (now for fountains).
680.13 Gas Chlorination Rooms (CACACA) (DPH).
680.21(A) (4) Wiring Methods-Motors.
680.22(A) Receptacle for Pool Circulation and Sanitation System, (1), (2) and (3).

680.21(C) GFCI Protection (motors). All 120 and 240V, single-phase motors must have GFCI protection.

680.222(B)(6) Low Voltage Luminaires.

680.22(E) Other Outlets.

680.23 Underwater Luminaires.

680.24(A) Underwater Luminaire Junction Box. (314.23(E) requires metal conduit to support the box.)

680.23(F) Branch-Circuit Wiring.

680.25(A)(1) Exception: Wiring Methods (Feeders).

680.26 Equipotential Bonding: (C) bonding pool water: direct contact for 9 square inches of surface.

680.42(B) Outdoor Spas and Hot Tubs (Bonding).

680.41 Emergency Switch for Spas and Hot Tubs.

680.43 Indoor Installations.

680.44 GFCI Protection.

680.51 Fountains.

680.50 General.

680.57(B) Signs in Fountains (GFCI).

680.57(C) Signs near Fountains.

680.58 GFCI Protection for Adjacent Receptacle Outlets.

Adjourned by Scott Davis at 2:12 p.m.

Minutes respectfully submitted by Dan Vaughan.