### **Greetings and Introductions**

The working group meeting was called to order at 8:00 AM on October 6, 2020. Jacob Blake presided as Chairman. There were 20 participants in attendance. 15 out of 21 members were present including five guests constituting a quorum. See the roster of the meeting included at the end of this document. All present introduced themselves. No essential patent claims were noted. No copyright claims were noted.

#### **Review Draft outline**

- o Enclosure NEMA ratings and IP ratings were added to the document
  - Add more detail to the ratings
- o Routine Testing
  - o AC and DC testing was added
  - o Adding caution note to DC hi-pot testing
- o Environmental Control
  - o Change "shall" to "are" or "should"
  - o Reference the IP Publication standard rather than adding additional NEMA ratings
- Electric Protection
  - o Definitions added that coincide with NESC
  - Component Markings
    - Should be marked as UL489 device
  - Permitted Uses
    - DC and AC references IEEE C37.30.1
  - Conductor Sizing
    - Added conductor sizing for 125% of locked rotor current
  - o Offline conversation to further edit this section will occur
  - o References to other documents will need to be kept
- Terminations
  - o Change wording to "...terminations should be rated for application." Remove "600V"
- Terminal Blocks
  - o Remove "600V" leave as "rated for application"
- Mechanical Performance
  - o Definitions for "minimum torque" and "full rated torque" are needed
  - Torsional
    - Change "minimum torque" to "output torque"
  - o Reciprocating
    - Change "minimum torque" to "output force"
  - Braking
    - General wording added to require a braking method without specifically stating a type of braking
- Auxiliary Switch
  - $\circ\quad$  Wording added for manufacturer and user to agree upon
- o RTU
  - o User should specify RTU being used or if it should be included
  - o Change "power RTU" to "control RTU"
  - o Spell out RTU as Remote Terminal Unit (RTU)
  - Add RTU to definitions
  - o Add paragraph stating that RTU can be included with the motor operator
  - Communication Method

- Add power connector requirement, communication connection requirement, antenna connection requirement, and mounting requirement
- o Nameplate
  - Add section for force
  - o Add reciprocating mechanism section
  - o Change "switches" to "motor operators"
- o Motor Protection
  - o Add "class" to fuse type
  - o Edit line 25 to breakers
- Interlock
  - o Change wording to "...should provide"
  - o Add "associated substation" before circuit breaker
  - o Remove "the" before electromagnetic contactors
  - o Add statement on non-electromagnetic contactors

The first session was paused and adjourned at 9:45 AM.

The working group meeting was called to order at 10:15 AM on October 6, 2020. Jacob Blake presided as Chairman. There were 19 participants in attendance. 14 out of 21 members were present including five guests constituting a quorum. See the roster of the meeting included at the end of this document. All present introduced themselves. No essential patent claims were noted. No copyright claims were noted.

#### **Review Draft outline**

- Torsional
  - o Change "output" to "stall torque"
  - o Add line for "running torque for time duration at full travel"
- Reciprocating
  - Remove thrust rating
  - o Add operating time maximum voltage
  - o Add operating time minimum voltage
- Mechanism Wiring
  - C37.21 was brought into questioning. Jacob will acquire a copy of this standards C37.21 and C37.21a for the working group and discussion will be postponed until the standards can be reviewed.
- Wiring Types
  - o More information will be added, and discussion will be held in the Spring
- Batteries
  - Types of batteries should be stricken and an agreement between manufacturer and user should be defined
  - o Sizing
    - Outlining customer knowledge of battery requirements from battery manufacturer
    - Outlining how long a battery can support electronics in motor operator without switch operations
    - Outlining how many operations battery can support without external charging
    - Outline time period between charging while in storage
  - o Chargers
    - The user and manufacturer should consult with battery manufacturer for charger
  - Inverters

- Remove section entirely
- o Testers
  - Move section under Options
- Options
  - Add "possible" after every
- o Motor manual operator
  - o Change title to Manual Operation
  - o Add "or mechanically" to disconnection
  - o Add "to remain with the motor operator"

## **Next Meeting**

The Chairman announced that the next meeting for C37.30.6 will be held TBD April 18 - 23, 2021 in Charlotte, NC.

Respectfully submitted, Brett Boles C37.30.6 Secretary

Phone: 205.288.0305 bhboles@southernco.com

#### **Meeting Roster**

Brian Alexander S&C Guest Jacob Blake **Hubbell Power Systems** Chair **Brett Boles** Southern Company Secretary Tim Cook Pascor Atlantic Member Steven Donahue Royal Switchgear Member Chris Ekpoudom Southern States Guest Ilya Glinsky Southern Cal Ed Member Doug Hill S&C Guest Danny Hoss Southern States Member Bill Hurst GE Member John Kaminski Siemens Member Cleaveland/Price Pete Kowalik Member Scott Lanning S&C Member Jeremy Moore Pascor Atlantic Member Laura Reid **Hubbell Power Systems** Member **Hubbell Power Systems** Carl Reigart Member Brent Richardson **Hubbell Power Systems** Member Cleaveland/Price **Rob Ross** Guest Devki Sharma Entergy Member **Donnie Swing Powell Industries** Guest