Meeting notes for Working Group D3 Nashville

Chair: Hanna Abdallah

Meeting May23, 2012

- 1. Introduction of member and guests
 - a. There were __ members and __ guests presents at this meeting. See attendance list at the end of the minutes.
 - b. There were a total of 34 members in the working group.
- 2. IEEE Patent Slides were shown.
- 3. Review meeting notes-Nashville. No corrections noted.
- 4. Review and update meeting agenda
- 5. Possible Presentations in the Future
- 6. Discuss Assignments Team Leaders
 - a. Clarify Fault current that might be used in the calculations
 - i. We discussed the issue of 80 kA breakers and fault currents.
 - ii. Probability to see the maximum current.
 - iii. Combination of loads
 - iv. The actual load on insulators are 50% based on static fault current versus dynamic. The calculations are quite conservative.
 - v. Boris and Thomas Proios and Ryan Stargell have volunteered to be added to Team #1. (Hanna, and Lucas Klien) Don team leader.
 - vi. Tom Amundsen will review statement on X/R by August for review by the rest of the working group.
 - b. Team #2 Annex C ampacity Calcs verify equations presented in the guide
 - i. Equation C.7 Chuck discussed the comparision between 605, 738, and SW Rate program
 - ii. Hanna show difference between IEEE simplified and the calculated method.
 - iii. Work is complete
 - iv. David Stamm and Chuck Haahr will present the list of assumptions that will be used for the ampacity tables at Nashville.
 - c. Team #3 Update ampacity tables using the updated equations
 - i. Chuck to pick suggested variables and present at Nashville.
 - ii. Boris will send some tables for comparison sake.
 - iii. Chuck to discuss copyright issues.
 - iv. Input values were agreed to.
 - d. Team #4
 - i. Had two phone conversations. Agreed that the tables were pretty good.
 - ii. Structural engineers use fault current to calculate busses.
 - iii. Watched Hanna's Cigre video on bus faults.
 - iv. Need some load combinations and load factors. We discussed whether load combinations are necessary, or we refer to ASCE

- v. Tom Amundsen is task leader
- vi. Team will have presentation of findings for Nashville.
- e. Team #5
- f. Team #6
 - i. Bus design and insulator selection tutorials subcommittee
 - 1. Explanation of which equations to use and why, corona, ampacity, strain bus design.
 - 2. Run through examples and compare with FEM models.
 - 3. Team members: Jean-Bernard (lead), Hanna,
 - 4. Team will present outline of tutorial by Nashville meeting.
- g. Add Team to review 738.
- 7. IEEE605-2008 Errors
- 8. New PAR
 - a. Hanna wants new PAR by Nashville meeting.
- 9. Other damping material for conductors
 - a. From Section 12.5 or 12.6.
 - i. WG wants to remove statement that ASCR, other materials are fine as damping materials.
 - ii. Add statement about corrosion b/w copper and aluminum.
 - b. Guidance on connection-type effects on vibration.
 - c. Team leader: Jean-Bernard
- 10. Other freezing rain
 - a. Will clarify effects of freezing rain radial ice
- 11. Next meeting Nashville October, 2012

Submitted for review,

Chuck Haahr

Attendance:

| Chair | Hanna | Abdallah | Power Engineers | Phoenix |
|--------|----------|-------------|--------------------------------------|---------------|
| Vice- | Jean- | | | |
| Chair | Bernard | Dastous | Hydro Quebec/IREQ | Varennes |
| Guest | W. Bruce | Dietzman | Oncor Electric Delivery Company | Ft. Worth |
| Member | Dave | Kelley | Salt River Project | Phoenix |
| Member | Dave | Kelley | Salt River Project | Phoenix |
| Member | Donald | Rogers | Bechtel | Frederick, md |
| Member | Boris | Shvartsberg | Public Service Electric and Gas Comp | Newark |
| Guest | Doug | Smith | SEFCOR, Inc. | Griffin |
| Guest | James | Sosinski | SAIC | Orlando |
| Member | Don | Wengerter | Wisconsin Public Service | Green Bay, WI |

| Member | Brian | Stephens | Ameren | Decatur |
|-----------|-----------------|-----------------|---|-------------|
| Member | Ryan | Stargel | Tennessee Valley Authority | Chattanooga |
| Secretary | Charles | Haahr | Sega Inc. | El Dorado |
| Member | David | Stamm | Sega, Inc. | Lawrence |
| Member | Bob | hobbs | Global Product Manager | Kennesaw |
| Member | Ramani | Ayakannu | ABB, Inc | Raleigh |
| Guest | Gary | Beane | TRC Engineering | Augusta |
| Guest | Keith | Graham | Dominion | Richmond |
| Guest | Christian | Robles | Entergy | Kenner |
| Member | Thomas | Amundsen | Sargent & Lundy, LLC | Chicago |
| Member | Tom | Proios | SAIC Energy, Environment & Infrastructure | Lisle |
| Guest | Alan | Beith | Booth and Associates, Inc. | Raleigh |
| Guest | Michael | Kirkland | Progress Energy Carolinas | Raleigh |
| Guest | Sarah | Puffer | Progress Energy Carolinas | Raleigh |
| Guest | Dean | Gause | Progress Energy Carolinas | Raleigh |
| Guest | Everett | Graham | Progress Energy Carolinas | Raleigh |
| Guest | | | 0, | • |
| | Reggie | Maniego | Progress Energy | Lake Mary |
| Guest | Reggie Harsh | Maniego Naik | | _ |
| | | • | Progress Energy | Lake Mary |

Plus four others not in 123: John Winston, Marshall Bird, Shannon William and Eddie Shomate.