

# RODE TF Controls for Distr. Equip.

September 22, 2014, Asheville, NC



**Chair:** Nenad Uzelac    **Vice Chair:** Francois Soulard, **Secretary:** Frank DeCesaro, **Webmaster:** Mark Feltis

## Meeting Minutes

### 1. Call to order and introduction:

- Meeting called to order at 10:17 AM.
- Roster was routed
  - There were 16 Members and 9 Guests.
  - One person requested Member status.

### 2. Self-Introductions of guests and members:

- Members introduced themselves along with their affiliations.

### 3. Previous Meeting Minutes

- Minutes from the last meeting were presented.
  - Footer is incorrect. It should read – S14RODEa5 , not – F13RODEa5
- Chris Ambrose moved to accept and Christian Heinrich seconded.

### 4. Control Taskforce Progress Upgrade

- Quick review by Chair
  - The taskforce has 30 regular and 2 corresponding members.
  - We are about 1 year from publishing. If someone wants to become a member this session is their last opportunity provided that they volunteer to help between today and next session. People were asked to request this on the sign-up sheet.
  - Discussed scope of our taskforce.
    - Report is due next year. The taskforce will recommend to RODE sub-committee how to proceed. It is then up to RODE to determine path.
    - The report will be relevant, up-to-date, and referenced.
  - We are at revision 2 of the document.
  - The chair will reach out to the IEEE Relay committee to comment because the topics covered by this are common to them.
  - The chair asked if everyone had access to the central desktop to obtain documents. The central desktop site was displayed on screen.

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## 5. Contributions: Chapter Leads to Present

- General
  - No presentation.
- Chapter 1 – Overview – Mark Feltis
  - Mark stated he needs to review the present version 2 and report back.
- Chapter 2 – Environmental Factors – Christian Heinrich
  - This group is complete on the chapter. They are looking for other people outside their group to review to determine completeness.
  - The biggest distinction is how the environment is towards electronics is and what the environment towards temperature etc...
- Chapter 3 – Mechanical Factors – Jeff Gieger
  - The section has been updated. There are a lot of MIL specs to dig through.
  - It is difficult to find information for pole top equipment outside of the substation.
  - A question was raised if was a test standard for how the controls get bounced around in the truck? A.K.A. a “truck” tests. There does not appear to be one that is known except for what individual utilities may follow.
  - A question was raised if this section captured the operational mechanical aspects on how the control reacts with other equipment. An example is that some controls have actuators or shafts that come out of the control box.
    - The group will look into this. Members can send Jeff Geiger and Antone Bonner pictures or even videos of what we are talking about to guide them.
  - A comment was made that C57.12.28, C37.12.29, C37.12.30, and C37.12.31 are for pad mounted equipment enclosure security. Reading of these seems appropriate for control enclosures also. This has done a good job on tests for some mechanical.
    - Comment: It would be tough for a control to meet these standards because it has pry tests, penta head bolt requirements, etc.
    - Chair recommends that this is discussed with the next session where the chapter leads will be working on items.
- Chapter 4 – Electrical Factors – Francois Soulard
  - The group has started to clarify and remove items from the chapter. The made recommendations to move information to other section leaders.
  - This chapter is limited to the typical electrical distribution system and its disturbances in a control. The sources of disturbances need to be reworked a bit.
  - Issue of power quality put in standard recommended limits was discussed.
  - The group wants to have more input from users of controls into this chapter with practices in grounding. One utility does every third pole and equipment poles. Another does every two poles and then equipment poles. There is a large variety on how to ground between utilities.

- **Action:** Bill Walters and Travis Johnson will contact Francois Soulard and provide input.
- Chapter 5 – Human Factors – Ed Jankowich
  - Ed Jankowich went back to the other sections that have been submitted and made some changes based on his review.
  - If anyone has information that has practical knowledge on human factors please submit it to him.
  - This section is basically done for this stage..
- Section 6 – Hardware Interface Considerations – Antone Bonner
  - Antone was not able to be here. Nenad Uzelac covered this.
  - Controls connect to power source, external voltage sensors, switch gear, motors, discrete inputs/outputs, and HMI. What are the considerations for these?
  - Voltage sensors are designed and tested for one set of standards. Relays are to another standard. Switch is yet to another standard. However customers want these to work as a system.
    - It is very important that this is looked at as a system, and not as a component.
  - This is an important chapter so if someone wants to add or review this chapter they need to let Nenad know.
- Section 7 – Software / Firmware Considerations – Bill Glennon
  - This is about the software itself, not features inside.
  - Access control is discussed in Section 8 and 9, not in this section.
  - If anyone has practices that will help with this section please get a hold of Bill.
  - Chapter is basically done. Not looking to put in additional items unless a utility has items they know of but has not been included.
  - A question was raised because line men ask what is happening when the upgrades are put into the device. Will it trip? Does the equipment need to be locked out from operating?
  - It is hard to determine when utilities get firmware upgrade on how it impacts their controls and devices. More detail in the firmware release needs to be improved upon. Usually there is only one line that comments what has been changed.
  - C37.231 talks about practices for manufacturers to follow on firm ware releases.
  - Action: Paul Found, Tim Royster, and John Paul will read through this section and provide feedback to Bill Glennon and the group on firm ware release / install practices.
- Section 8 - System Considerations - Paul Found
  - Provided some slides for the group to view on how the chapter was laid out and content.
  - Looking for comments on this section.
  - Need to see if there are any standards that deal with integrated controls.
  - Action: Nenad will provide a person to Paul with experience with motor integration. He will also talk with Karla Trost on Padmount.

- Section 9 – Other considerations – Chris Ambrose
  - A cleaned up version of chapter 9 with footnotes have been posted. Removed a redundancy in security (9.25).
  - They will review the cyber security to clean that up.
  - Non group members should review and provide them comments.
  - This would be a place to cover the safety issue of sharp corners on equipment.

**6. Open Discussion:**

- How will this go to the relay committee, get feedback, and not affect 2015 goal.
  - a. The chair will reach out to the Relay committee; give them time to comment before our next meeting. He will also check with the IEEE to see if there is a protocol to be followed.
- Question on reference #13 of other considerations. It is from a utility. Have we received permission to use this citation? We can cite but put either internal document, or not published etc.
- There will be a summary. A question was asked if the summary will be after each section or overall document.
  - a. Will probably keep the section summaries but have one complete one at end of document.
- Document will be published to group in two weeks. The chair wants six weeks to receive comments back. Group agreed on the six week due date.

**7. New business**

- Nothing new

**8. Next meeting:**

- Spring at St. Pete Beach

**9. Adjourn**

- Meeting adjourned at 11:48 AM

Submitted by:

Nenad Uzelac  
October 9, 2014  
Controls for Distribution Equipment Task Force Chair

<b>Role</b>	<b>Name</b>	<b>Affiliation</b>	
			Fall 14
Chair	Nenad Uzelac	G&W Electric	X
Vice chair, Lead	Francois Soulard	Hydro Quebec	X
Secretary, Lead	Craig Befus	BC Hydro	<i>excused</i>
Member	Adiqwu	John Paul	X
Section lead	Ambrose, Chris	Federal Pacific	X
Member	Bob Behl	ABB	<i>absent</i>
Section lead	Bonner Antone	Eaton Cooper power	<i>excused</i>
Member	Dart David	Noja Power	<i>excused</i>
Secretary	DeCesaro, Frank	Eaton Copper power	X
Member	Jonathan Deverick	Dominion Power	<i>absent</i>
Webmaster, Lead	Feltis Mark	SEL	X
Member	Fitchett Doug	AEP	X
Section lead	Found Paul	BC Hydro	X
Member	Gieger Jeff	T&B	X
Section lead	Glennon Bill	SEL	X
Member	Glinkowski, Mietek	ABB	<i>absent</i>
Member	LaBianco Michael	G&W Electric	<i>absent</i>
Member	Lambert Frank	Neetrac	<i>absent</i>
Member	Lee Ken	T&B	<i>absent</i>
Member	Lettow Chris	S&C	<i>absent</i>
Section lead	Heinrich Christian	Siemens	X
Member	Hirz Harry	T&B	<i>absent</i>
Section lead	Jankowich, Edward M	T&B	X
Member	Martin Don	G&W Electric	X
Member	Mizener Jeff	Siemens Industry	<i>absent</i>
Member	Puranik Sachin	Hubbell Power Systems	<i>absent</i>
Member	Putman Larry	Powell	<i>excused</i>
Member	Royster, Timothy	Dominion	X
Member	Swank Jim	Eaton Cooper power	<i>excused</i>
Member	Tobin, Tom	S&C	<i>absent</i>
Member	Walter Bill	We-energies	X
Member	Travis Johnson	Xcel Energy	X

Guest	Tom Stefanski	Powertech	X
Guest	Karla Trost	G&W electric	X
Guest	Ken Lee	T&B	x
Guest	Jon Spencer	T&B	X
Guest	Rick Allen	United Illuminating	X
Guest	Peter Agliata	Hubbell power systems	X
Guest	William Ernst	T&B	X