Meeting Report ABYC Electrical Project Technical Committee Seattle, Washington January 12-13, 2015

1. Highlights of the ABYC Electrical Project Technical Committee meeting. The Electrical PTC is responsible for the maintenance of the ABYC electrical standards.

### 2. Three Phase Subcommittee

- A Technical Information Report draft has been completed. It identifies safety criteria and issues using 3 phase power on boats.
- The draft will go through one subcommittee review, probably in March, before issuing it to the PTC. The expectation is that this information report will evolve into a standard.
- Next action: This document will go through the document review process. Goal is for publication in summer 2016.

# 3. E-30, Electric Propulsion Systems

- The current ISO 16315 standard on Electrical Propulsion is bogged in politics of the IEC and continues to fail in its vote.
- Next meeting of the ISO Work Group is in June in Sweden. It is thought that if this vote fails, the US
  will walk away from this standard development. If the ISO standard is approved, then ABYC will
  look at adoption of the ISO standard as an ABYC standard.
- The submitted E-30 comments will be matched to the current ISO 16315.3 standard to determine if they are already addressed in the ISO document.
- The PTC will also begin work in a comparison of E-30 and ISO 16315.3 to determine if all E-30 requirements are addressed in the ISO document.
- Next action: Two projects to be completed by early summer.

## 4. TE-4, Lightning Protection

- The subcommittee will look at NFPA 780 for zone of protection and rolling ball theory and incorporate usable information into TE-4.
- The subcommittee recommended that use of surge protection devices be addressed in the report. Availability of DC surge protection devices might be a problem.
- Next action: The subcommittee will continue work on the report.

# 5. E-11, AC & DC Electrical Systems On Boats - General

- The call for comments resulted in 140 submissions and ended in December 2014.
- The readability subcommittee completed their work and the current draft standard is a result of that work.
- The ABYC Tech Board directed each standard list all owners manual items as the final section of the standard. A subcommittee was created to develop this section for E-11. (Tom Marhevko, Clyde Head and Ray Toth)
- Request for Interpretation: The PTC determined that if systems input or output is under 50v, then this system is covered in E-11. If the components are outside the scope of E-11, then the manufacturer shall contain all the intersystems within the component's casing.
- The bus bar subcommittee is developing a formula and table for sizing of the bus bar. New bus bar requirements may drive these requirements into an electrical component standard.
- The Canadian expert noted that Transport Canada is looking to adopt ABYC standards.

#### 6. E-11, AC & DC Electrical Systems On Boats - Requirements

- Added a definition of a Residual Current Device (RCD) and Cold Cranking Amperage (CCA).
- The ground on the isolation transformer, Diagram 10, is listed as an optional ground. Corrected the diagram to connect the ground to shore and added a Note to check manufacturer's installation instructions.

- For multiple power sources, only one grounded neutral point is allowed on board a boat.
- Modified overcurrent protection requirements for an alternator.
- Retained the interrupt capacity design factor guidance. A subcommittee was formed to test fuses to verify this guidance. May lead to listed components for fuses.
- Added IEC 60934, Circuit breakers for equipment, as a reference.
- Changed the temperature range of non-metallic clamps to -40°F to 185°F
- Next Actions: Clean up all revisions and begin a 45 day review period.

#### 7. New Business

- High Capacity Battery Subcommittee will develop a strawman draft for the subcommittee to review.
   Due March 15.
- Advanced Electrical Certification NOCTI process handles content. Thought is that standards
  developers should also provide training. ABYC electrical certification will be the first step and
  advanced certification will require some field experience. After board approval, a study guide needs to
  be developed.

## 8. Updates

- NMMA Document retention program increased from 10 to 20 years.
- ISO New RCD in effect 2016. Standards week in Dusseldorf in January and in Gutenberg in June.
- NFPA Emergency disconnect on boats in review. Also, no swimming in marinas sign.
- 9. The next meeting of the ABYC Electrical PTC was tentatively set for January 2016.

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