



Committee Agenda

Codes and Standards Surveillance

Date and Time: March 20, 2017 1:00-5:00 PM

Location: Orlando FL

Chairperson: John Svendsen

Agenda:

Topic	Discussion	Conclusions
Welcome	<p>Leader: <u>John Svendsen</u></p> <p>Introduction of committee officers</p> <p>Recognition of those attending committee meeting for the first time</p>	
Review and update of membership	<p>Leader: <u>Robert Simmons</u></p> <p>Request any information relative to changes in personnel data from attendees</p>	<p>See attendance sheet</p> <p>36 with 12 new attendees.</p>
Meeting minutes from the Spring conference in San Antonio.	<p>Leader: <u>Robert Simmons</u></p> <p>Request any amendment to minutes previously distributed and move to accept as appropriate.</p>	<p>Minutes approved unanimously</p>
Review Mission statement, and initiatives of the C&SS committee	<p>Leader: <u>John Svendsen</u></p>	
<p>Presentation UL</p> <p>George Langton</p>	<p>UL2200/UL6200</p>	<p>George went through the efforts put forth on these two standards to harmonize with the Canadian market.</p>
<p>Presentation</p> <p>Intertek Brad Affeldt</p>	<p>RoHS</p>	<p>Brad went through a high level presentation on RoHS</p>
<p>Working Group update-Steve Sappington, UL 2200</p>		<p>No new items to report</p>

Standards Review: -Herb Whittall		Herb Whittall gave summary . See end of document.
NFPA 70 (NEC)		
NFPA 99, 110, 111, 70		
International Code Council International Building Code. (IBC)	Robert Simmons	Robert presented some changes in test requirements and standards since the last recommended practice. He proposed that the IBC working group be revived to update the recommended practice. Also, recommended putting the document in code format. Robert recommended, then making an STP in ASHRAE to begin the process to make the recommended practice into a standard. Seismic Source, and VMC are liaisons with ASHRAE, so the they can navigate it thru ASHRAE and EGSA can have members on the STP to make sure EGSA expertise influences the standard. Motion made, seconded, to revive the IBC working group with Robert Simmons as chair. Motion was unanimously approved.
UL2200 (Stationary Generators)		New edition coming out
UL2201 (Portable Generators)		
IEEE 1547.1a Standard Test Procedures for Distributed Resources		1547 vote on revision sometime in the future
IEEE 1547.2 – IEEE 1547 Standard for Interconnecting Distributed Resources with Electric Power Systems.”		
IEEE 1547.3 – “Draft Guide for Monitoring Information Exchange and Control of DR Interconnected with EPS”		
IEEE 1547.4 – Standard for Design, Operation, and Integration of Distributed Resource Island System with Electric Power		

Systems.”		
IEEE 1547.5		
IEEE 1547.6– “Draft Recommended Practice for Interconnecting Distributed Resources with Electric Power Systems Distribution Secondary Networks.”		
IEEE 1547.7		
IEEE 1547.8 – Extended Use of IEEE 1547 Voltage and Frequency Ride through Requirements		
ISO 8528		
ISO 8578-5 Reciprocating Internal Combustion Engines Driven Alternating Current Generator Sets – Part 5 Generator Sets.		
ISO 15615 Reciprocating Internal combustion engines – Measurement procedure for exhaust silencers – Sound power level of exhaust noise and insertion loss using sound pressure level and power loss ratio		
UL 1778 Uninterruptable Power Systems 2 nd Edition		
NEW BUSINESS		
NEC Issues	Steve S.	Further Investigation needed
Sound measuring issues	Dean W.	No standardized methods for sound methods. Would like a recommended practice.
CSA B138		Possible fall topic
Adjourn	Leader: <u>John Svendsen</u> Receive motion and vote on adjournment	Motion and second to adjourn.

Action Items

Item	Person(s) Responsible	Deadline

Herb Whittall Report:

Codes & Standards Update:

Feb/Mar, 2017 Herb Whittall report.

The January 2017 issue of Assembly Magazine on page 20 has a short article titled R & D Project to Create Energy Efficient Motors. Since motors are built a lot like gensets, I would hope anything that comes of this will be applied to generators as well. The article says that the US Department of Energy is providing almost \$25 Million to fund 13 projects to develop energy-efficient motors for US industrial machinery. The projects will address current limitations so that future motors will be more efficient, smaller and lighter. The article justified the expense by saying that 40% of US energy consumption was turned into electricity and 70% of US electricity was consumed by electric motors. This equates to 25% of all electric use in the country. The research will focus on high-performance thermal

and electrical conductors, low loss silicone steel and high temperature superconducting wire. The last sounds expensive, but all of these should be available for use with generators. It did not say who will be working on these projects. Further on the subject of the Consumer Product Safety Commission (CPSC) proposed rule concerning the testing and limiting of CO from portable generator sets. Both the Portable Generator Manufacturer's Association (PGMA) and UL are looking at modifying their standards to include the CPSC rule or a modification of it. I have received and accepted an invitation from the PGMA to be a member of their canvass committee to review their modification of ANSI/PGMA G300-2015 Safety and Performance of Portable Generators. The items to be looked at are:

1. New requirements added for carbon monoxide emissions; and
2. New requirements added in accordance with NEC 2017.

This standard applies to 15 kW and smaller, single phase, 300volt or lower, 60 hertz, gasoline, liquefied petroleum gas and diesel engine driven portable generators. UL 2201 Ed. 2 has a preliminary review which opened on 2 February, 2017 in process for a proposed second edition of the standard for tests for determining carbon monoxide (CO) emission rate of Portable generators. I am a member of the Standards Technical Panel for UL 2201 so I will be involved in this review. If you want to view the work area go to UL 2201 ED.2 – Preliminary review – Opened 2017-02-02. At the Spring EGSA Conference, there will be a Sunday meeting of a group at 1:00 pm to discuss changes needed for standards. They will also discuss Directive 2002/95EC or also known as RoHS. This directive sets a limit or ban on the following substances in the European Union for new electronic or electric equipment. The substances are Mercury, Cadmium, Hexavalent Chromium, Polybrominated Biphenyls and Polybrominated Diphenyl Ethers. If your company is in the business of building or designing electronics you may want to attend. Contact Steve Sappington at sappisr@cat.com or Steve Oxtoby at Steve.Oxtoby@Kohler.com for details. In the IEEE March/April issue of its "Industry

Applications" Magazine is an article starting on page 12 titled "The Emerging Energet". It discusses how the current utility Grid system will not be capable of supplying the necessary power in the future. From page 14, "the current electric power delivery system infrastructure will be unable to ensure reliable, cost-effective, secure and environmentally sustainable supply of electricity for the next two decades". And further, in the next column under the heading "Beginnings of a Customer-Facing Smart Grid" the first bullet says:

"hundreds of thousands, eventually millions, of small distributed generators". This should lead to increased sales of distributed power and the sale of generator sets by our members.

Finally, ISO 8178 Reciprocating internal combustion engines – Exhaust emission measurement – Part 6: report of measuring results and test, and ISO 8528 Reciprocating internal combustion engine driven alternating current generating sets – Part 9 Measurement and evaluation

of mechanical vibrations. Both were approved.

Herb Whittal Jan, 2017 report

or more than two years, I have been an active member of a committee formed by the Consumer Products Safety Commission (CPSC) that is responsible for finding ways make small portable generators safer for the consumer. Every year, several people die or are hospitalized due to inhaling carbon monoxide fumes from the improper placement of portable generator sets in and around homes. The committee has implemented smarter warning labeling by manufacturers to improve the warning literature concerning the danger of breathing in the toxic fumes. However, users in the public do not always heed these warnings. There was the possible suggestion of a mandatory carbon monoxide level shutdown that manufacturers would be responsible for implementing within all portable generator sets under 25 horsepower, but this would add greatly to the cost and they could be disarmed. In spite of all the work they (and others) had accomplished, the problem was still occurring. Therefore, the CPSC has issued a Notice of Proposed Rulemaking concerning small portable generator sets. Their summary states "The US Consumer Products Safety Commission has determined preliminarily that there may be an unreasonable risk of injury and death associated with portable generators. To address the risk, the commission proposes a rule that limits CO emissions from operating portable generators. Specifically, the proposed rule would require that portable generators powered by handheld spark-ignited (SI) engines and Class I SI engines not exceed a weighted CO emissions rate of 75 grams per hour (g/hr); generators powered by one-cylinder, Class II SI engines must not exceed a weighted CO emission rate of 150 g/hr; and generators powered by Class II with two cylinders must not exceed a weighted emission rate of 300 g/hr." This rule initially had a comment submission date of February 6, 2017, but this date has been extended to April 24, 2017.

If you want to get more information and wish to comment, the Document Citation is 16CFR1241, the Docket # is CPSC-2006-0057 and it was published in the Federal Register on November 21, 2016. The Portable Generator Manufacturer's Association (PGMA) is a member of this panel and they (as well as their members) are upset with the CPSC, as is UL, as this will affect UL 2201. There may be a lot of comments generated to the CPSC. The problem I see is that unless a CO shutdown is incorporated in all sets, someone will run a set in their garage overnight and no matter how low the CO emissions rate is, eventually the CO concentration will reach saturation and kill the occupant. Another meeting of the task force was held on January 4, 2017. The CPSC proposal is still out there for comment. However, UL 2201 has been usurped by PGMA Standard G-300. So UL is proposing issuing version 2 of UL2201, which will only include the test procedure using only the dilution chamber method in the CPSC proposed rule and only for complete generator sets, with no limits on emissions. This will go to the UL2201 CPS Members soon.

A proposed review of UL 1778 Ed. 5 Uninterruptable Power Systems was opened in November with Comments closing January 9, 2017. The only things of substance I see were : Update to table 4.5.3.101A for temperature limits, corrections to Annex NNN, and additional requirements for short circuit withstand short circuit closing test port location. NFPA 110 First Draft Technical Committee final ballot results are in and were a bit disappointing.

There were 30 eligible to vote, but only 20 ballots were returned and of those 16 voted yes on all revisions, so under NFPA rules the draft was accepted. Ballots are open for several ISO revisions/standards and will close on February 20, 2017, so if you want a negative vote from me, please contact me before February 20th with your reasons for a negative vote. These are: IS3046-6 – Reciprocating internal combustion engines – Performance – Part 6: Overspeed protection; IS7967-1 – ICE Vocabulary of components and systems Part 1 Structure and external covers; IS7967-8 – ICE Vocabulary of components Part 8 – Starting systems; IS2710-2 – ICE – Vocabulary Part 2 – Terms for engine Maintenance.

Dan Chisholm, Sr. MGI Consulting Inc. advised the following changes to the Joint Commission EC.02.05.07 Emergency Power Supply Systems (EPSS) protocols which became effective January 9, 2017. All the following results must be documented. All EPSS must be inspected weekly. Emergency generators must be tested monthly for 30 minutes under load.

Diesel powered units must meet manufacturer's recommended exhaust temperature during test. Diesel units must be tested annually for 1 ½ hours – 30 minutes at 50% nameplate rating and 60 minutes at 75% nameplate rating. Annually test the fuel quality to ASTM standards. I think biofuels should be tested

every six months. For more information, visit www.mgi-epss.com. I am looking forward to seeing all of you in Kissimmee for the 2017 EGSA Spring Conference. Make your arrangements and join us, as these should be some hot topics at the committee-level.