



Committee Meeting Agenda & Minutes

Codes & Standards

Committee Meeting Objective: Report, discuss, and learn about the latest updates in national codes and standards affecting the EGSA members.

Date and Time: Monday, October 4th, 2021

Location: Orlando, FL– Room: Java Sea

Time 1:00 - 5:30p.m.

Chairperson: Jeff Jonas

Schedule

List leaders and a description for each topic or activity.

Item	Description	Conclusion
Welcome, review committee initiative, missions statement, meet your 2021 Fall leadership	Robert Simmons, Jeff Jonas	Meeting Called to Order and Reviewed Mission Statement. Introduced new Chair (Jeff Jonas), Vice Chair (Keith Page), and Secretary (Brady Eifrid)
Review and Update Membership	Keith Page	Issued the membership attendance list
Meeting Minutes from Spring 2021	Keith Page	Approved and no requests for changes
Consumer Product Safety Standards on Gensets	Jeff Jonas	Presented on UL, CSA and ETL examples on standard requirements for North America and NFPA installation requirements
EGSA Code Surveillance	Jeff Jonas	Reviewed summary excel documents containing extensive list on applicable requirements as they relate to EGSA and supplemental power
Working group updates UL 2200	Jeff Jonas, Steve Sappington	Discussed Results/outcomes from Working Group on ULC 2200 Sunday afternoon. Now includes medium voltage within the scope. Tim Evans and George Langton from UL did field questions and comments.
IBC, ASCE, BSSC, Seismic certification	Robert Simmons	Discussed updates on construction requirements regarding structural requirements; IBC 2021 can't adopt ASCE 7-2022 until 2024 Discussed potential for working group on attempting to develop more formalized standard on how to get seismically certified products
Diesel Fuel Working Group for NFPA 110	Steve Sappington	Generated recommendations on fuel quality within the Annex (non-required) – working group closed

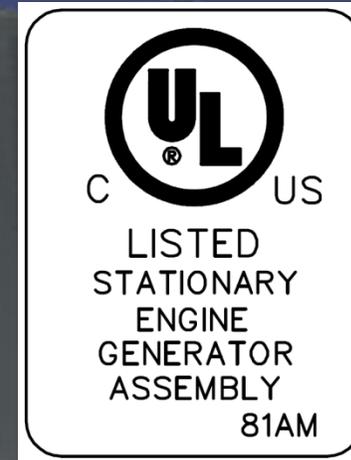
Hydrogen Discussion	Jeff Jonas, Steve Sappington	Mentioned potential speaker to provide insight on use of hydrogen and blended hydrogen fuel sources
NFPA 110, 111 (emergency and standby power systems; stored energy)	Jeff Jonas	Public input closing June 1, 2022 – Mentioned getting involved on the TC for 110
UL 2201 (portable Generators)	Jeff Jonas	Reviewed coverage of CO requirements
UL 1008 (transfer switch equipment)	Sie Teong	9 th edition went up for vote Aug 2021. Discussed summary of updates
ULC 6200 (power production controls)	Jeff Jonas	Is now published for North America covering power production controls
UL1778 (uninterruptable power systems)	Jeff Jonas	No news, volunteer position open to follow this
UL 2900 (cyber-security)	Jeff Jonas	No news
NFPA 99 (health care facilities code)	Steve Sappington	Reviewed updates on 2 nd draft – no significant changes at this time
IAEI International Association of Electrical Inspectors) No codes or standards. IAEI uses the NEC. Chapter meetings are an outlet for manufacturers to share information about their product. They are open to a presentation at their local chapter meetings	Steve Sappington	International Association of Electrical Inspectors – group is looking to reach out to other applicable organizations. No other news
NFPA 70 (National Electric Code)	Jeff Jonas	Second Draft Meetings set for mid-October. Code Panel 13, definitions moved to article 100. Requirements for bypass isolation reviewed. Reviewed requirements for disconnects being grouped together
NFPA 37 (Installation and Use of Stationary Combustion Engines and Gas Turbines)	Keith Page	Public input ending in Jan 2021.
IEEE 3000 (Color Books)	Jeff Jonas	No news
NECA (National Electrical Contractors Association)	Jeff Jonas	No news
PGMA (Portable Generator Manufacturers Association)	Jeff Jonas	No news
<i>Emergency Response Coordination</i> NFPA 1600- Standard on Continuity, Emergency, and Crises Management FEMA – UL3741-PV emergency response	Jeff Jonas	No news
EGSA	Jeff Jonas	Reviewed trainings on technician training and microgrids
Panel of EGSA Experts – Any Important News of Major Initiatives	Keith Page, Jeff Jonas	Discussed potential options and request for volunteers to support public questions as experts (behind the scenes) to field general questions.
Motion to Adjourn	Jeff Jonas	Adjourned

Agenda:

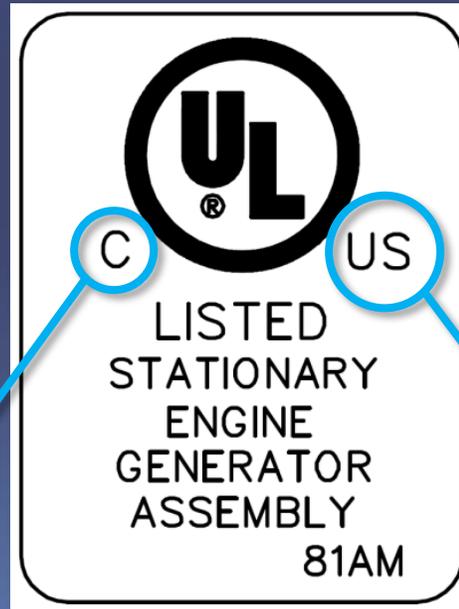
- *Regulatory requirements*
- *Installation requirements and considerations*
- *Industry trends*

Regulatory requirements-Overall

How do you know if this product is reliable and safe?



Regulatory requirements-Engine Generators



CSA C22.2 No. 100 -
Motors and Generators

UL 2200-
Stationary Standby Generators

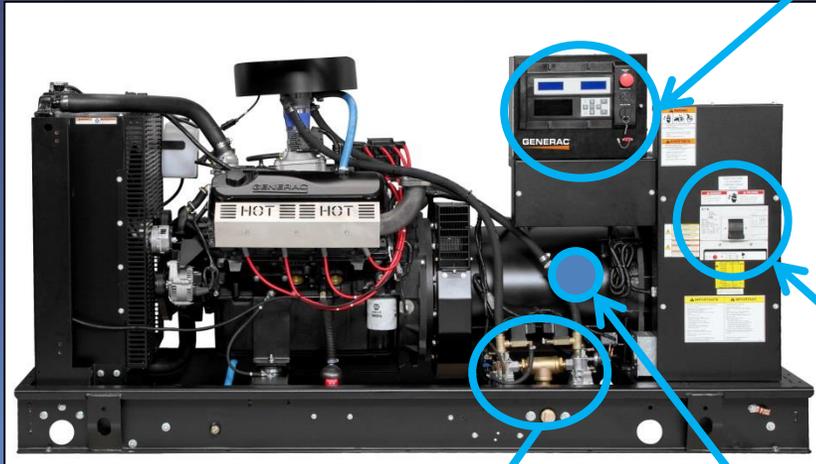
Regulatory requirements-Base Tank



CAN-ULC-S601
Shop fabricated steel
aboveground tanks for
flammable and
combustible

UL 142
Aboveground Tanks for
Flammable and
Combustible Liquids

Regulatory requirements-Components



UL 6200-Controls for Stationary Engine Driven Assemblies

UL 1236-Battery Chargers for Engine-Starter Batteries

UL 840-Insulation Coordination ... for Electrical Equipment

UL 746-Polymeric materials – Use in Electrical Equipment...

UL 489-Molded Case Circuit Breakers, ...

UL 869A-...service equipment

UL 429-Electrically Operated Valves

UL 1004-Rotating Electrical Machines

Installation requirements and considerations

NFPA 70-The National
Electrical Code (NEC)

C22.1-15-Canadian
Electric Code, part I

NFPA 37-Installation
and Use of Stationary
Combustion Engines
and Gas Turbines

NFPA 54-National
Fuel Gas Code (NEC)

B149.1-15-
Canadian Natural
Gas and Propane
installation code



State and local codes

Manufacturer's
instructions

NFPA 37-Installation and Use of Stationary Combustion Engines and Gas Turbines

4.1.4 Engines Located Outdoors.

4.1.4.1

Engines and, if provided, their weatherproof housings that are installed outdoors shall be located at least 1.5 m (5 ft) from any openings in the walls of structures.

4.1.4.2

Engines and, if provided, their weatherproof housings that are installed outdoors shall be located at least 1.5 m (5 ft) from structures having combustible walls except as provided in 4.1.4.2.1 through 4.1.4.2.4.

4.1.4.2.1

A clearance less than 1.5 m (5 ft) shall be permitted where all portions of structures that are closer than 1.5 m (5 ft) from the engine enclosure have a fire resistance rating of at least 1 hour.

4.1.4.2.2 *

A clearance less than 1.5 m (5 ft) shall be permitted where a fire test involving consumption of the available combustibles, within the engine or, if provided, its weatherproof housing demonstrates that a fire originating at the engine or its weatherproof housing will not ignite combustible structures.

Agenda:

- *Regulatory requirements*
- *Installation requirements and considerations*
- *Industry trends*

Industry trends

- *Power Quality*
- *Natural gas as a reliable source of fuel. Hydrogen next.*
- *Remote monitoring*
- *Technically competent technicians*
- *Performance and Reliability testing*

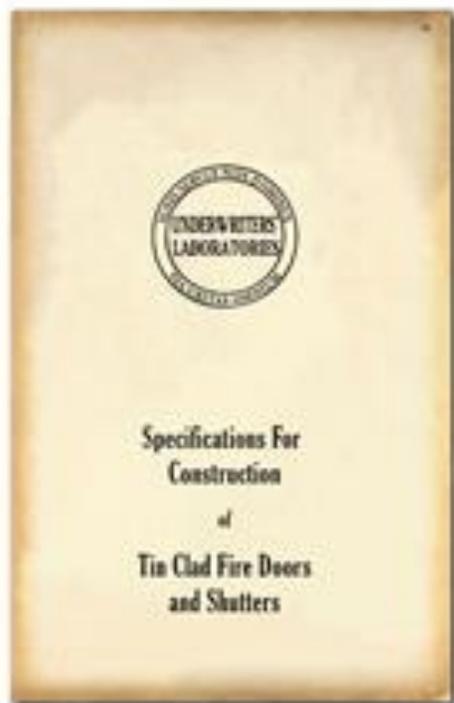
Industry trends – Natural Gas as a reliable fuel

Unit	Article 700 Emergency	Article 701 Legally Required Standby	Article 702 Optional Standby	Article 708 Critical Operations Power
	2-hrs full-demand 10-seconds	2-hrs full-demand 60-seconds		72-hrs full-load DCOA
Diesel	OK	OK	OK	OK
SI Natural Gas (Utility)	AHJ acceptance	AHJ acceptance	OK	Not Accepted
Bi-Fuel	OK	OK	OK	OK

Industry trends

Maintenance is a very important key to a Reliable engine generator





1903 First Standard for Safety

UL publishes its first Standard for Safety, titled "Tin Clad Fire Doors."

UL1008 Update

Oct 4th 2021

- 9th edition of UL1008 went up for a vote by the STP in August 2021.
 - Consensus was reached and the 9th edition will be published soon.
- Short summary of changes in 9th edition
 - Marking requirements(Improve consistency) --- Annex I
 - Annex J update on power inlet boxes.
 - Editorial changes when it comes to values of time, voltage, force etc etc to have “a minimum of” added in front of the values.
 - Annex I Revised LSI breaker markings.
 - Annex K Arc Resistance Design



UL1008 Update

- Annex L Electromagnetic Compatibility
- Annex M Cord Connect Transfer Switch Equipment
- Revised Marking/Instruction for Short Circuit Withstand rating when protected by fuses.
- Changes to align with NEC
- Inlets 100A or greater requires interlock disconnect
 - Two exceptions are:-
 - If the inlets are suitable for disconnecting under loads.
 - If the install is under a supervised industrial install with a specific dedicated space for the generator which is located within sight of the inlets.
- Annex N Meter socket Transfer Switch.



Action Items (additional space on back)

Item	Person Responsible	Deadline
Task	Name of person assigned to complete task	Date and time task should be completed.

Codes and Standards Surveillance Committee Mission Statement:

Represents EGSA and its members' interests on select national and international industry codes and standards committees and reports back to the membership through *Powerline* magazine, Committee meetings, Action Alerts, and e-mail blasts. The Committee also:

- Develops recommendations and provides action regarding industry codes and standards development and review by request and as needed
- Surveys the membership and other industry professionals to determine the applicable standards it should monitor
- Provides the Association with a platform from which it may develop Recommended Practices for the proper application of codes and standards within the industry
- Educates EGSA members on standards, their application and interpretation