

National Hydrogen Association

Codes & Standards Workshop

September 22-23, 2003

Underwriters Laboratories Inc.

Standards Update

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Codes & Standards Workshop



- **UL1741 Inverters, Grid Interconnect, etc.**
- **UL2075 Gas and Vapor Detectors and Sensors**
- **UL2264 Hydrogen Generators**
- **UL2265 Hand-Held or Hand-Transportable Fuel Cell Power Units with Fuel Containers**
- **UL2266 Fuel Cell Power Systems/NEBS**

UL1741



- **Adopting IEEE 1547 standard requirements**
- **Revised proposal as a result of comments & IEEE adoptions due out for review 10/03 to UL's STP members**

UL2075



- **Useful for detection systems or sensors covering 0-25% lower flammable limit--gaseous hydrogen in air**
- **Nearing the end of the ANSI development process**

UL2264



- **Hydrogen Generators**
- **ANSI development process**
- **Dispensing**
- **Proposal to split technologies into separate documents:**
 - **Reforming**
 - **Electrolysis**
 - **Water Reaction Technologies**

Standards Technical Panel to meet Oct. 28, 2003

UL2264



- **Covers portable, stationary and fixed gaseous hydrogen generating appliances, rated 120 V and greater.**
- **Covers hydrogen generation equipment that may or may not include storage means integrated within the product.**

UL2265



- **Hand-Held or Hand-Transportable Fuel Cell Power Units with Fuel Containers**
- **New second draft being prepared for transmittal to the UL STP committee shortly**
- **Will include integrated fuel storage**
- **Will include refueling containers**
- **DC output @ NEC Class 2 levels only**
- **Integrated electrical connectors or cord/plug**
- **UL/DOE sponsoring a workshop to address any regulatory restrictions on use or transport**
- **UL efforts to harmonize with newly formed IEC/TC105 group document**

UL2266



- ⌘ **“Electromagnetic Compatibility, Electrical Safety, And Physical Protection Of Stationary And Portable Fuel Cell Power Systems For Use With Commercial Network Telecommunications Equipment, UL2266.”**
- ⌘ **New PINS announced in ANSI newsletter dated 9/12/03.**
- ⌘ **Telephone companies, Telecom industry, Fuel Cell industry**