CSA International Fuel Cell Standards Update – May 29, 2002

CSA INTERNATIONAL

CSA International Overview

- Who we are
- Fuel Cell Standards Activities
- Conclusion

CSA INTERNATIONAL

- American Gas Association Laboratories
- Canadian Gas Association Approvals
- Canadian Standards Association

CSA GROUP

- CSA International
- CSA America
- CSA
- Quality Management Institute (QMI)

ANSI Z21.83-1998
FUEL CELL POWER PLANTS

- Originally AGA Requirements No. 8-90
- Adopted by ANSI in 1998
- Relinquished to CSA America in 2001
- Presently being revised and renamed CSA FC 1 FUEL CELL POWER SYSTEMS
- www.csa-international.org to order a copy

CSA FC 1
FUEL CELL POWER SYSTEMS

- Stationary
- 10 MW
- 600 V
- Natural gas, LP gas, Hydrogen, Methanol, Ethanol, Kerosene, Diesel, Gasoline, Zinc

CSA International Req. 3.01 US Portable Fuel Cell Power System

- Portable
- Natural gas, LP gas, Hydrogen, Methanol, Ethanol, Kerosene, Diesel, Gasoline, Zinc
- Call Dena Stilla at (216) 524-4990 to order a copy.

CSA FC 3 PORTABLE FUEL CELL POWER SYSTEMS

- Draft approved in principle by the CSA TAC.
- Portable
- Natural gas, LP gas, Hydrogen, Methanol, Ethanol, Kerosene, Diesel, Gasoline, Zinc

Component Acceptance Service No. 33 MODULES

- Published in 2000
- Fuel Cell Modules
- Call Ray Thurton at (416) 747-4000 to order a copy

CSA International Req. 1.01 Residential Fuel Cell Power Plant

- Published 2001
- Supplements ANSI Z21.83
- Will be replaced by CSA FC 2 Residential Fuel Cell Power Plants
- Call Dena Stilla at (216) 524-4990 to order a copy.

CSA International Req. 5.99 Hydrogen Generators

- Published in 2001
- Natural an LP gases
- Call Dena Stilla at (216) 524-4990 to order a copy

IEC TC 105 Fuel Cell Technologies

- Sit on All Working Groups
- Administrator for US and Canada

CONCLUSION

CSA is helping the Fuel Cell Industry through:

- Standards Development
- Certification and Testing