



## Report of Materials and Equipment Acceptance Division

NYC Department of Buildings  
280 Broadway, New York, NY 10007  
Patricia Lancaster, FAIA, Commissioner  
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Pursuant to Administrative Code Section 27-131, the following equipment or material has been found acceptable for use subject to the terms and conditions contained herein.

### MEA 260-05-E

**Manufacturer:** Plug Power, Inc., 968 Albany-Shaker Road,  
Latham, N.Y. 12110-1428

**Trade Name(s):** Plug Power, Inc.

**Product:** Gencore fuel cell system

**Pertinent Code Section(s):** Subchapter 14 & Reference Standard RS 14

**Prescribed Test(s):** ANSI/CSA America FC 1, American National Standard/CSA  
American Standard For Stationary Fuel Cell Power Systems

**Laboratory:** CSA International

**Test Report(s):** Edition 2: Certificate 1849842, dated March 28, 2007,  
issued by CSA International.

**Description:** The GenCore Fuel Cell System is a hydrogen-fueled, backup DC power generator capable of outputting up to 5kW of electrical power. The system is designed and intended for outdoor operation only. It is not to be applied for powering of any life-safety equipment. The standard application for these fuel cell systems is as backup power for Telecommunications (5T), Broadband (5B), or Utility Site (5U) DC bus equipment (switching equipment and other critical loads). Products with an FG designation are designed for applications requiring a floating ground. All other products are designed and certified to be installed in configurations in which the DC positive or negative return bus is tied to the site ground point.

#### **Model Numbers:**

5T48  
5B48  
5U48FG  
5T24  
5U108FG  
5U120  
5U120FG

Model Number Breakdown:

<u>Character</u>	<u>Description</u>
5	Power Output, kW
T	Telecommunication Application
B	Broadband Application
U	Utility Application
24, 48, 108, or 120	Rated Output Voltages
FG	Unit Has a Floating Ground

A typical GenCore installation consists of the GenCore fuel cell system and a hydrogen supply. The fuel cell system contains the fuel cell stack, power conditioning electronics, and the auxiliary support subsystems. It also contains either batteries or ultra-capacitors to store energy for transients and startups. The hydrogen for the system is supplied either directly by the user/customer or by the optional Hydrogen Storage Module (HSM) offered by Plug Power. The Plug Power HSM is a self-contained unit that houses six hydrogen cylinders and provides all required pressure regulation and valving required for fueling the GenCore fuel cell system.

Pursuant to “Promulgation of the Rules relating to Material and Equipment Application Procedures” dated November 5, 1982, the Bureau of Fire Prevention has no objections Letter dated August 21, 2007, F.P. Index #0507039F.

**Terms and Conditions:** The above-described fuel cell system is accepted on condition that:

1. Installation and use of the system, including the optional HSM (if installed), shall meet all applicable requirements, conditions and limitations of:
  - a. NYC Building Code and NYC Zoning Resolution
  - b. NYC Electrical Code
  - c. NYC Fire Prevention Code, and in particular, Subchapter 17 – *Gases Under Pressure*
  - d. Rules of the City of New York – Title 3 (Fire Department Rules)
  - e. CSA International Certificate of Compliance dated March 28, 2007
  - f. ANSI/CSA America FC 1-2004 (formerly ANSI Z21.83)
  - g. NFPA 853 and NFPA 55, and
  - h. All other Agencies having jurisdiction.
2. The fuel cell, including the optional HSM (if installed), shall be installed **outdoors only**.
3. The subject fuel cell shall not be used to supply emergency power to fire safety/life safety devices.

4. In the event of a fire emergency in the building, it may become necessary to shut down electric power to the building via the building main utility disconnect. A disconnect for the subject stationary fuel cell power system shall be provided in a manner and location acceptable to the NYC Department of Buildings and the Fire Department. Adequate signage shall be posted so as to clearly identify the location of this disconnect for the subject stationary fuel cell power system.
5. All manufacturer's recommendations regarding site preparation, installation, plumbing requirements and interface connections, electrical requirements and interface connections, as described in the Installation manual, shall be strictly adhered to.
6. Manufacturer's routine scheduled maintenance requirements shall be strictly adhered to.
7. All shipments and deliveries of such equipment shall be provided with a metal tag, suitably placed, certifying that the equipment shipped or delivered is equivalent to that tested and acceptable for use, as provided in Section 27-131 of the New York City Building Code.

Final Acceptance September 21, 2007.  
Examined By Donald 