

On-Site Electrolysis Gaseous Hydrogen Refueling Station

Permitting and Regulatory Approvals Guide

First Aid Team

Miami, June 16, 2004



Key issues to address:

1. Authorities Having Jurisdiction (AHJ) and Model Codes:
 - a. AHJ list and determine roles in approval process;
 - b. Model Codes: NFPA, ICC or both.
2. Permits
3. Installation related issues / standards:
 - a. Interface with delivery to site:
 - i. Water;
 - ii. Electricity.
 - b. Pressure vessel code:
 - i. Gaseous storage;
 - ii. Pressure piping.
 - c. Dispensing:
 - i. Vehicle interface;
 - ii. Fueling protocol.
 - d. Clearance distances and hazardous locations (zones)
 - e. Listing/labeling and Field certification acceptance:

Specifications

- Zoning/Siting:
 - Zoned Commercial
 - Building Use Group is Mercantile Occupancy and Business IBC 309
 - Soils, excavation and environmental analysis in accordance with local regulations to preserve historical sites and ensure adequate compaction.
- Electrical:
 - Electrical equipment inside classified areas in accordance with NFPA 497
 - Electrical Equipment in accordance NEC 70
- Water:
 - Water supply in accordance with IPC
 - Sewage connection in accordance with IPC
 - Storm Drains in accordance with Chapter 11 IPC
 - Burial depths in accordance with local codes to accommodate the local frost line

- Permits in accordance with IBC 105 and construction documents shall be in accordance with Section 106
- Listing and labelling and/or third party evaluation field evaluation
- Separation Distances in accordance with Table 2209.3.1 2003 IFC
- Storage:
 - Capacities in accordance with Chapter 27 IFC
 - Cylinders and Containers in accordance Security 3003.3 IFC
 - Venting in accordance with 2209.5.4.2
- IFC 2209.3.3 Canopy Requirements to prevent accumulation of H₂ gas
- Piping in accordance with IFGC – 704.1.2.3 Testing in accordance with 705

On-Site Electrolysis Gaseous Hydrogen-Service Station Flow Chart

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