

Applying Codes and Standards Systematically

Presented at the

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Hydrogen Technologies Permitting Workshop

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Where We Stand Today

- ❖ We now have a path through the I-Codes.
 - Available to all.
 - Endorsed by HELP and SBCC.
 - Linked on Plug Power, HELP and SBCC websites.

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Progress with AHJs

- ❖ Clear and concise rules have allowed for painless permitting since June 2007.
 - Massachusetts
 - New York
 - California

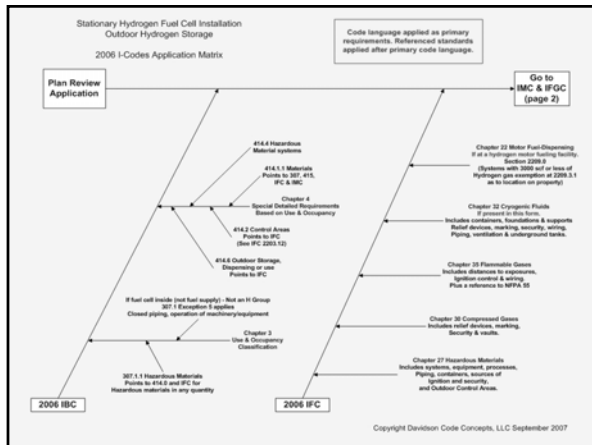
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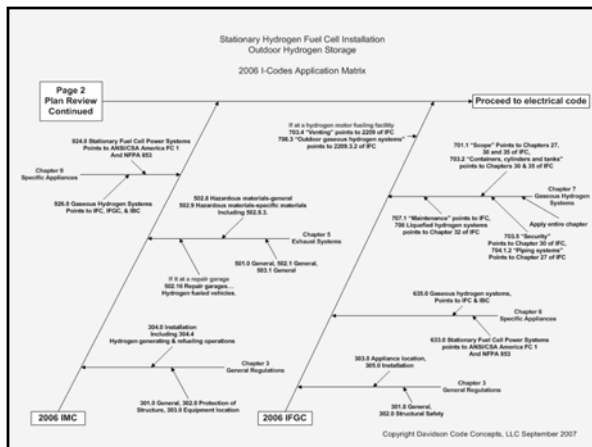


2006 I-Codes Application Matrix
Stationary Hydrogen Fuel Cell Installation
with
Outdoor Hydrogen Storage

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Referenced Standards?

- ❖ NFPA 853 Standard for the Installation of Stationary Fuel Cell Power Systems
- ❖ NFPA 55 Standard for the Storage, Use, and Handling of Compressed Gases and Cryogenic Fluids in Portable and Stationary Containers, Cylinders, and Tanks
- ❖ ANSI/CSA America FC 1

Others

- ❖ NFPA 70 NEC
- ❖ NFPA 54 ANSI Z223.1-2006 National Fuel Gas Code

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How It's Done

- ❖ Engineer follows published codes in the design process.
 - Then applies referenced standards.
- ❖ Engineer submits plans which meet the setback distances relevant to that jurisdiction.
- ❖ AHJ has an easier time reviewing the permit.
 - Has path through the codes showing relevant distances.
 - Can easily match design with codes.
- ❖ Permit is issued quickly or on the spot!

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Designs Which Were Approved Quickly

No permit required. Electrical inspection at completion of work for power and grounding.

Permit issued "on-the-spot".

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Important concept for educating Code Officials

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Listed and approved fuel consuming appliances



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A stationary hydrogen fuel cell is a listed and approved fuel consuming appliance



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