

Codes Standards & Permitting: Status, Priorities, Liability

Summary of “*Workshop on Facilitating
Permitting of Hydrogen Fueling Stations*”

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Workshop Objectives

Bring Together Local/State Permitting Officials, HFS Project Developers, and Other Stakeholders to:

- (1) Share Experiences
- (2) Discuss Lessons Learned
- (3) Discuss the Critical issues
- (4) Identify What Is Needed to Facilitate Efficient, Timing Permitting of Projects
- (5) Develop Recommendations (and Priorities) for A *DOE Initiative* to Facilitate Permitting

WORKSHOP PARTICIPANTS

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WORKSHOP RESULTS

SUMMARY OF KEY “LESSONS LEARNED”

- (1) There are emotional issues associated with permitting and they are different from the technical issues
- (2) There is the need to establish the codes-and-standards-of-record to be used in the permitting process (also, be aware of local modifications to those codes and standards)
- (3) Project developers need to identify up-front for permitting officials: (i) the deviations in their designs from the requirements in codes and standards of record; (ii) rationale for the deviations; and (iii) how the deviations are being addressed
- (4) There should be transparency in the permitting process – everything needs to be on the table

WORKSHOP RESULTS

SUMMARY OF KEY “LESSONS LEARNED” *(continued)*

- (5) Project developers have short-term interests; code and permitting and fire safety officials have long-term interests
- (6) There is the need to teach or familiarize fire safety officials about hydrogen and its properties as they relate to public safety (you don't need to teach them about PEM fuel cells, etc.)
- (7) There is the need for a Permitting Template – ideally, provided by DOE – for navigating through the permitting process
- (8) Different states, more than likely, do permitting differently
(For example, permitting in Michigan is done at the state level; in California both the state government and the local AHJ are involved)

WORKSHOP RESULTS

SUMMARY OF KEY “LESSONS LEARNED” *(continued)*

- (9) Perceived risks of a project are not the same as the actual risks
- (10) There is the need for public/community involvement in the project development and permitting of stations – from the beginning!!!
- (11) In general, permitting and fire safety officials do not have the technical capabilities and resources that project developers have
(It is not wise for a project developer and his staff of 10 technical experts to descend on a three-person permitting office with a set of documents a foot tall. Besides, the permitting staff has other things to do, in addition to dealing with HFS project developers)
- (12) Fuel cell vehicle safety is perceived as being different than HFS safety

WORKSHOP RESULTS

SUMMARY OF KEY “LESSONS LEARNED” (*concluded*)

- (13) Permitting officials need to be receptive to being involved and working with HFS project developers, beginning in the pre-planning stage
- (14) The pace of adoption of C&S documents differs from AHJ to AHJ
- (15) Interesting “Lesson Learned” by one project developer: the two most difficult permits to get were the permits for signage and for landscaping
- (16) There can be a disconnect between those officials involved in permitting the construction of a project and those involved in inspecting the project and approving its operation

WORKSHOP RESULTS

SOME KEY RECOMMENDATIONS TO DOE

- (1) Support development of a **Permitting Template** that permitting officials can use to navigate through the permitting process
- (2) Identify the applicable codes & standards (i.e., documents and specific safety requirements in those documents) and make them accessible to permitting officials
- (3) Develop a **Detailed Process Flowchart** for getting hydrogen fueling stations in place -- a flowchart that is all-inclusive (i.e., includes issues such as zoning, getting liquid hydrogen to the station, etc.)
- (4) Develop a **Hydrogen Fueling Station Technology Information Repository** having validated, credible information
- (5) Collect information on **HFS Best Practices** for the use of codes and standards developers

WORKSHOP RESULTS

SOME KEY RECOMMENDATIONS TO DOE

(6) There are two issues in permitting:

- o Construction permitting
- o Inspection and permitting for operation

Investigate the need for a **generic OMI checklist** that might be the basis for an OMI Guide

(7) Develop three-page **Factory-Mutual-type hydrogen technology/fueling station equipment fact sheets** for permitting and fire safety officials, taking into account **their technical backgrounds**

(8) Develop a **Pathway** (with respect to permitting) to go from today's R&D hydrogen fueling stations to retail stations

WORKSHOP RESULTS

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