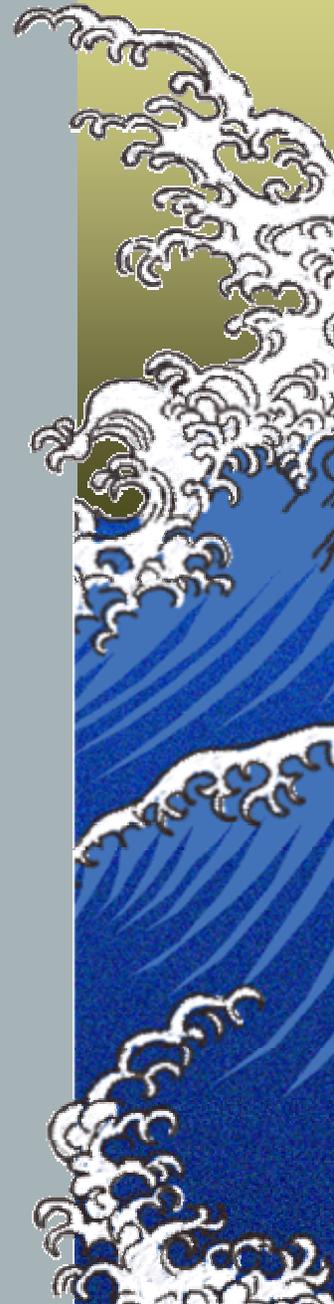


(Permitting a H₂ Refueling
Station (Group A)
(Get pumped up)

*DOE Hydrogen and Fuel Cells
Summit VIII
June 16, 2004*



Station Design

- ▶ *Existing station to be reimaged*
- ▶ *X vehicles per day*
- ▶ *Truck in Liquid Hydrogen*
- ▶ *Two gaseous hydrogen dispensers under canopy that has existing gasoline dispensers*
- ▶ *Underground bulk storage of LH2*
- ▶ *Canopy (compression, storage)*
 - ▶ *Liquid cannot come to the top of the canopy*



Station Design

- ▶ *Low pressure vaporizer (~100 psi) on ground*
- ▶ *GH2 is transferred to canopy top where it is compressed and stored for dispensing*
- ▶ *Aesthetically pleasing chain link fence with landscape buffer*



Assumptions

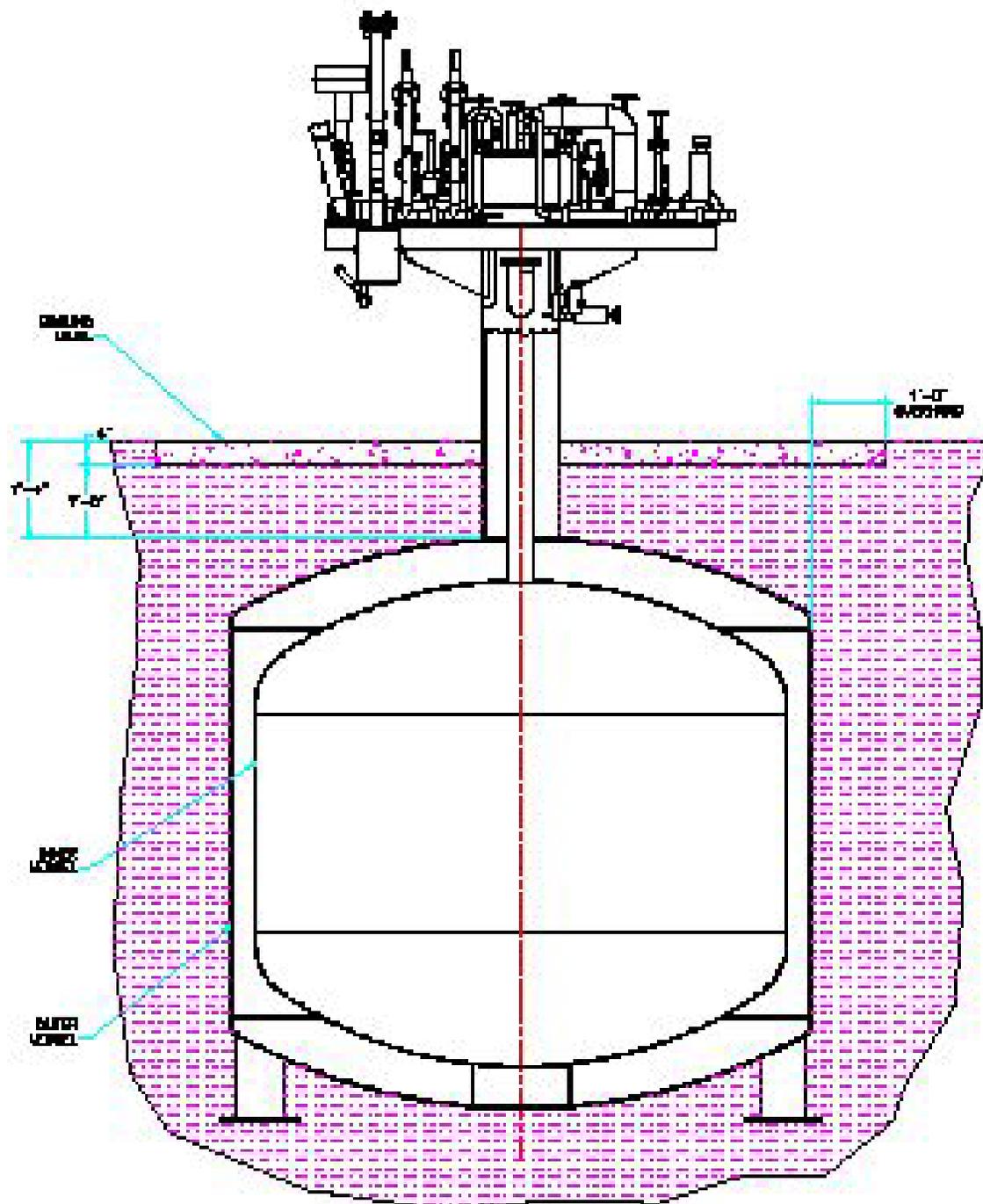
- ▶ *Station is in an I-code jurisdiction*
- ▶ *2004 supplement is published*
- ▶ *Alternative equipment and Methods (IBC Section 104.11)*



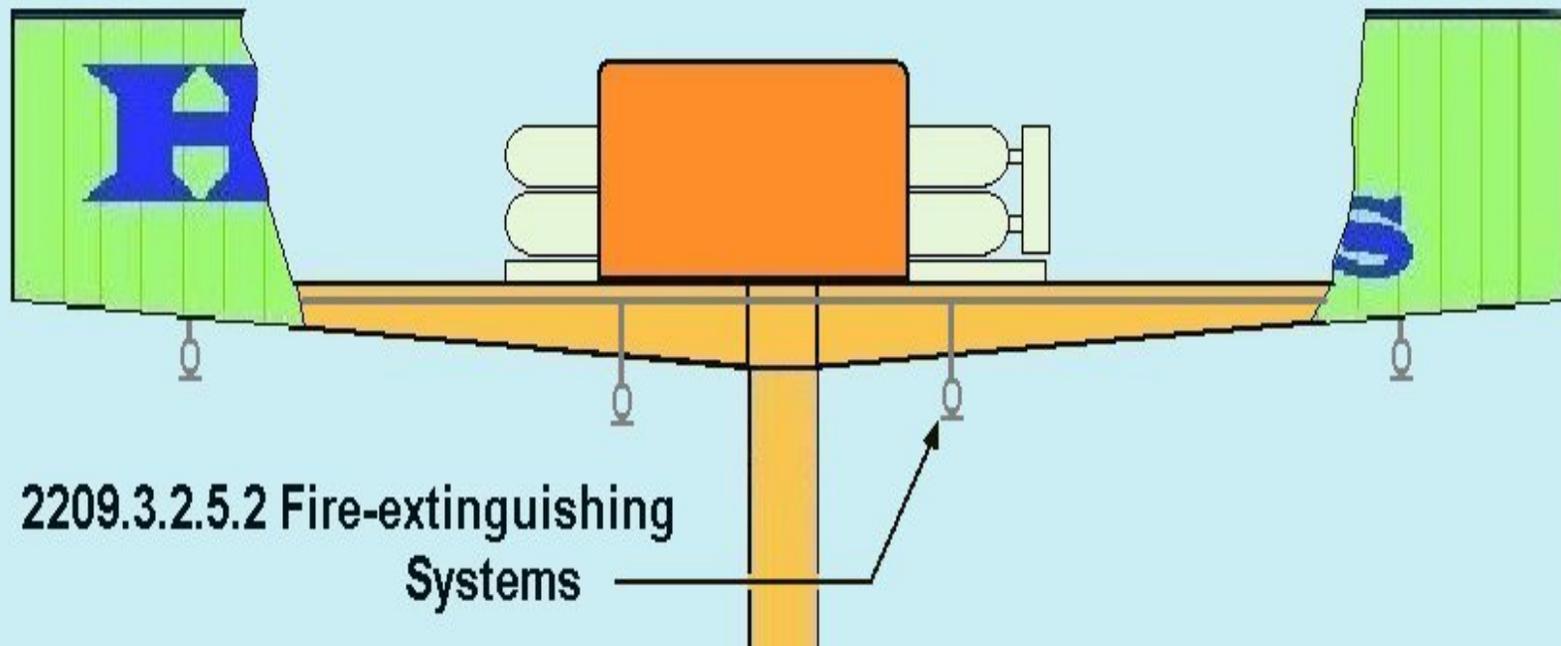
Station Design based on I-Codes

▲ *Show the station design*





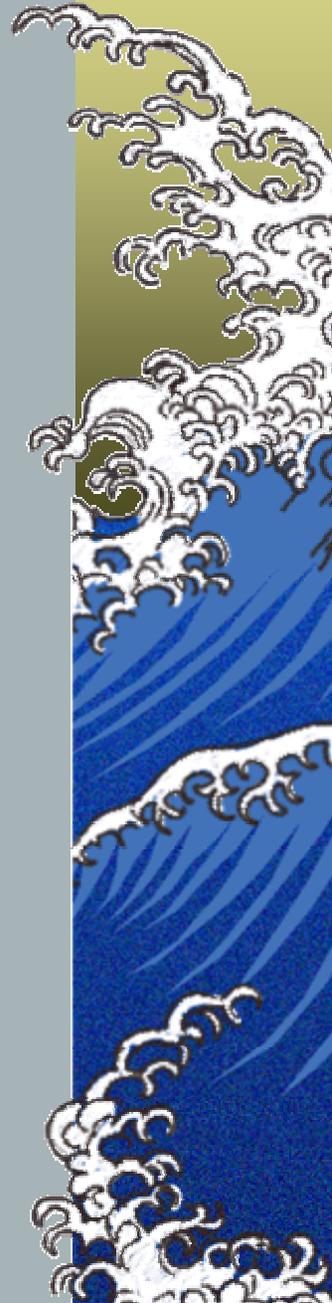




2209.3.2.5.2 Fire-extinguishing
Systems

Preliminary Permitting Meeting

- ▶ *Meet with planning department*
 - ▶ *Invite fire marshal, building departments, all other applicable departments*
 - ▶ *Zoning*
 - ▶ *Clarify that adding hydrogen as a fuel*
 - ▶ *Conditional use permit if necessary*
 - ▶ *May include restrictions beyond the code*
- ▶ *Meet with other regulatory departments*
 - ▶ *Air quality*
 - ▶ *Groundwater*



Permits Needed

▲ *Building*

- ▲ *Electrical*
- ▲ *Plumbing/Fuel gas*
- ▲ *Mechanical*
- ▲ *Structural*
- ▲ *Architectural*

▲ *Fire plan check*

- ▲ *Sprinkler,*
- ▲ *fueling station review,*
- ▲ *fire safety plan*
- ▲ *Cut sheets (spec sheet for equipment (UL listed))*

▲ *Environmental*

- ▲ *Air*
- ▲ *Water*
- ▲ *Asbestos*
- ▲ *FMEA*



Community Outreach

- ▶ *Meet with town officials (mayor, county commissioner, active civic groups)*
- ▶ *Education outreach meeting*
 - ▶ *Follow Road Show approach*



If you build it, they will come

