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## Fuel Cell Standards

### XIV Hydrogen Safety and PPE

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## XIV.c Hydrogen Facility Safety

### Overview:

Classroom and lab topics

- The behavior of hydrogen in an enclosed environment
- Facility requirements building codes and standards
- Hydrogen detection at a facility level
- Signage and safety perimeters

### Description:

Facility hydrogen safety require an understanding of the properties of hydrogen including, dispersion, flammability, flame emissivity and hydrogen detection. There are also building, local, national, international local fire protection requirements. A general knowledge of these requirements allows the student to operation safely and legally on hydrogen power vehicles.

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### Outcome (Goal):

Student will be able to explain and apply general facility hydrogen requirements and safety considerations. Use approved hydrogen safety protocols to setup and maintain a safe work environment within a facility.

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### Objectives:

Students shall be able to:

1. Explain the basic properties of hydrogen in an enclosed space



2. Describe what work place standards, building and fire codes impact a facility
  3. Define the differences between hydrogen passive and active detection
  4. Define facility signage requirements
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Task:

Students will

1. Walk the facility and perform a safety audit using a checklist
  2. Demonstrate where facility hydrogen detection should be located using a schematic of a building
  3. Determine where and what signage should be displayed
  4. Perform periodic checks/tests of the building hydrogen detection system (if applicable to meet fire code requirements)
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To comment or offer suggestions on this standard, contact Ken Mays:

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