



# Controlled Hydrogen Fleet and Infrastructure Demonstration and Validation Project

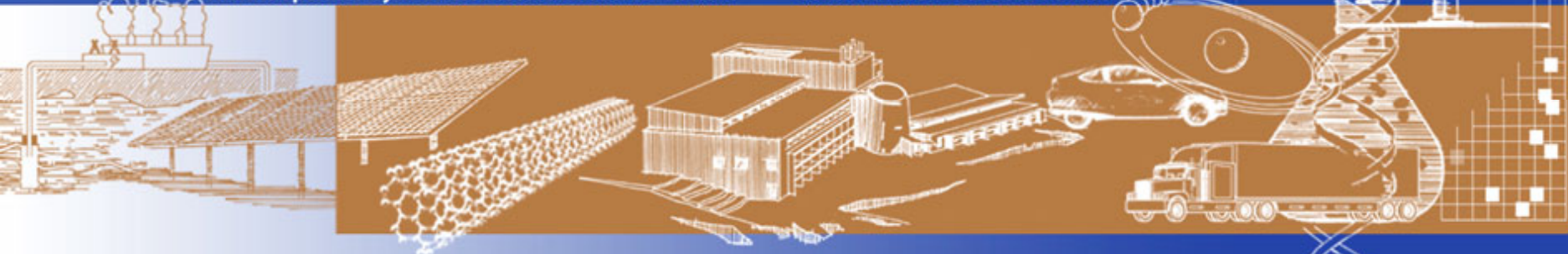
**First Set of Composite Data Products  
for Publication - March 1, 2006**

Keith Wipke, Cory Welch, Holly Thomas, and Sam Sprik

*Technical Report*  
NREL/TP-560-41153  
February 2007

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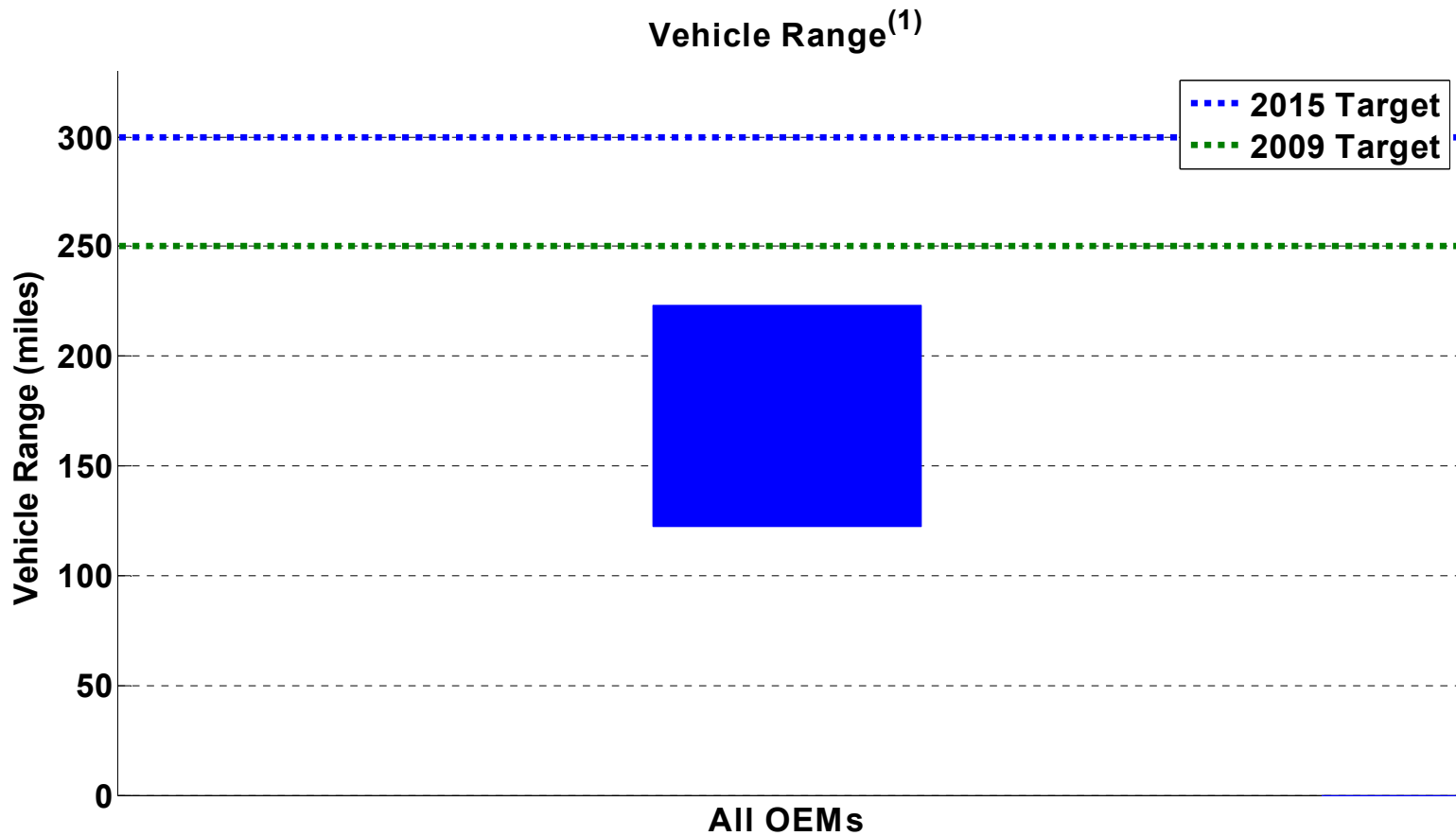
# Controlled Hydrogen Fleet and Infrastructure Demonstration and Validation Project – *First Set of Composite Data Products for Publication*

Keith Wipke, Cory Welch, Holly Thomas, Sam Sprik

March 1, 2006

Prepared under Task No. H270.8100

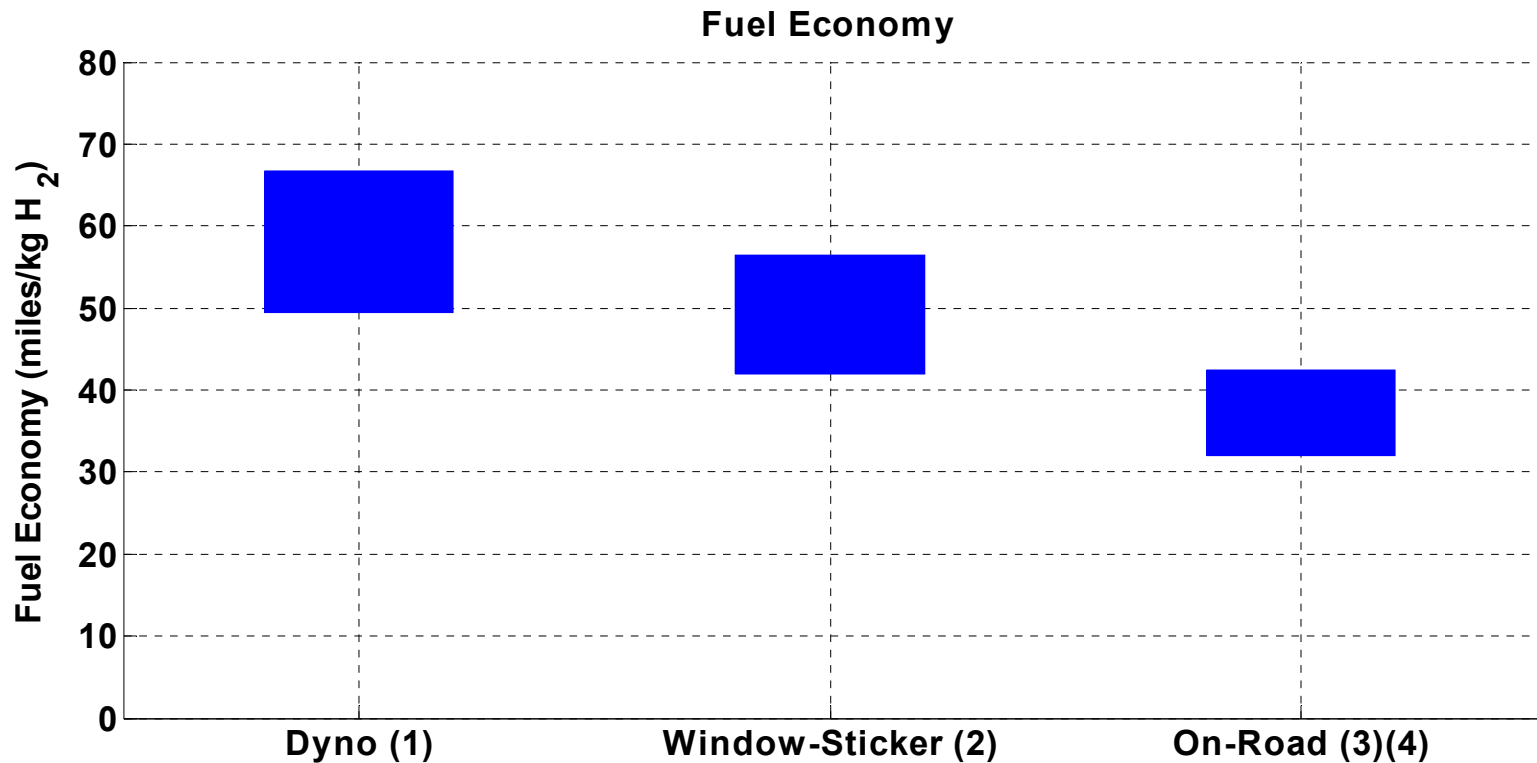
# CDP#2: Vehicle Range



Created: 21-Feb-2006

(1) Calculated from combined City/Hwy fuel economy (dyno test) per DRAFT SAE J2572 and usable fuel on board.

# CDP#6: Fuel Economy



(1) One data point for each make/model. Combined City/Hwy fuel economy per DRAFT SAEJ2572.

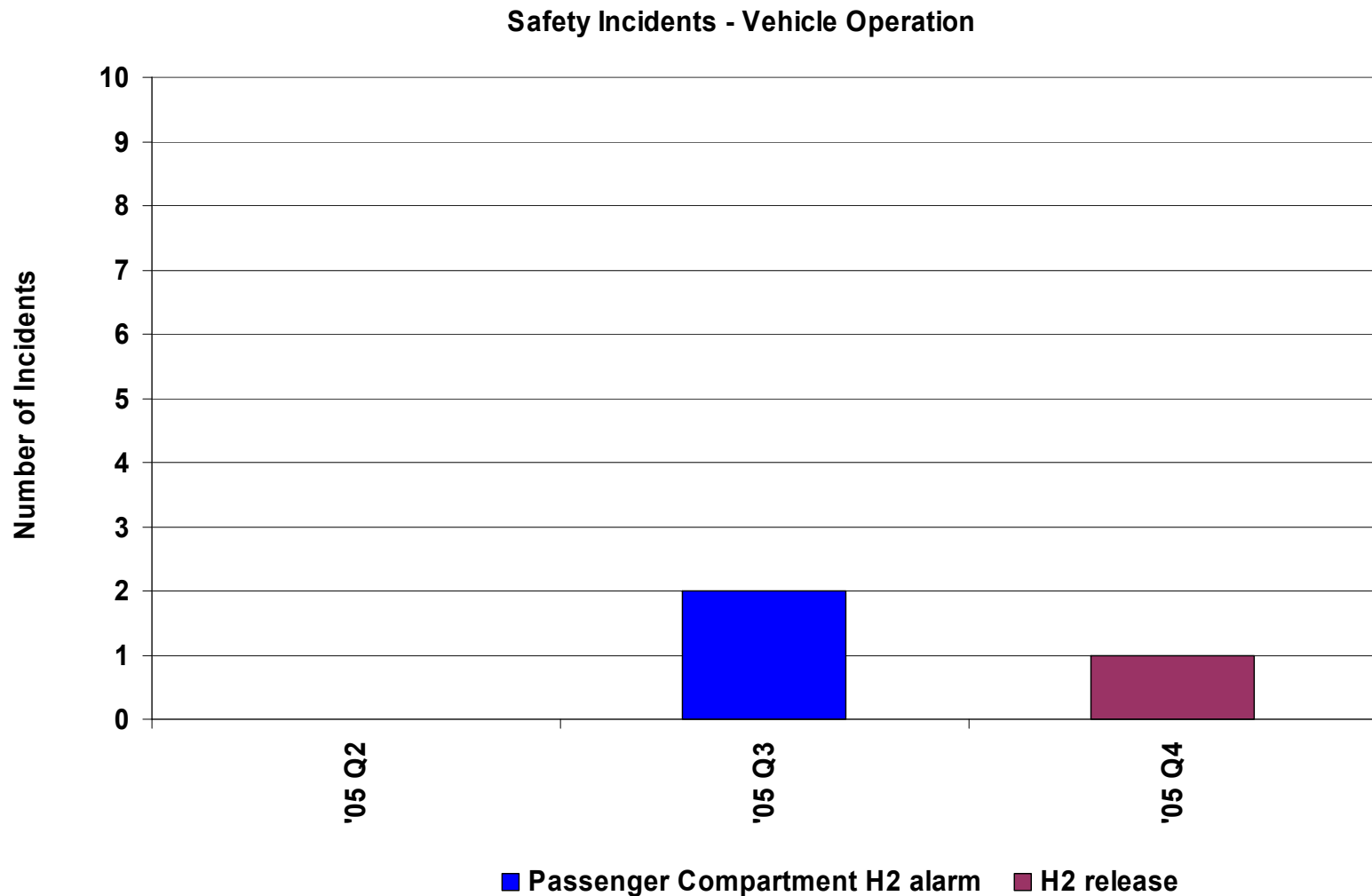
(2) Adjusted combined City/Hwy fuel economy (0.78 x Hwy, 0.9 x City).

(3) Excludes trips < 1 mile. One data point for on-road fleet average of each make/model.

(4) Calculated from on-road fuel cell stack current or mass flow readings.

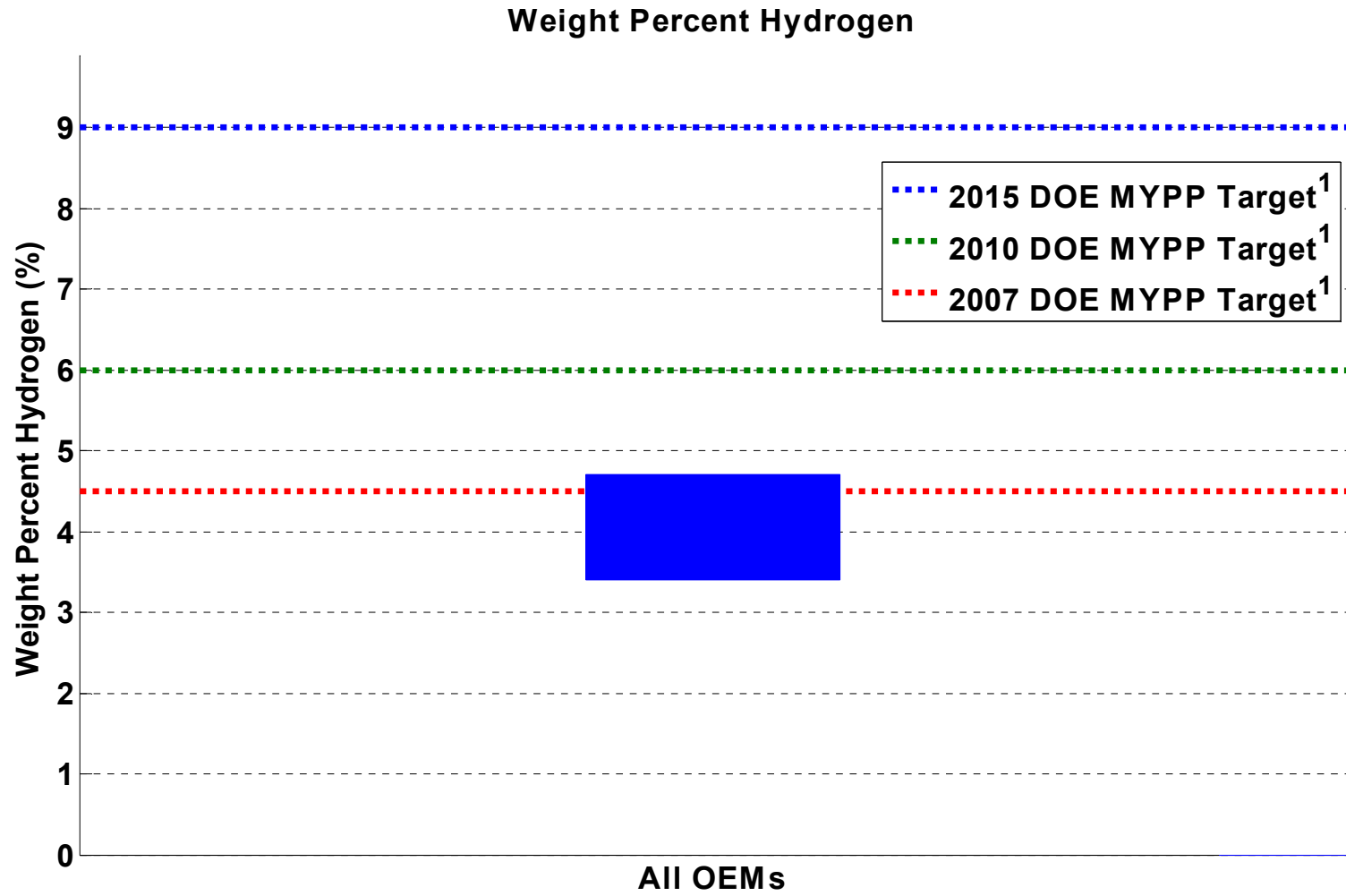
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# CDP#9: Safety Incidents – Vehicles



Created 21-Feb-2006

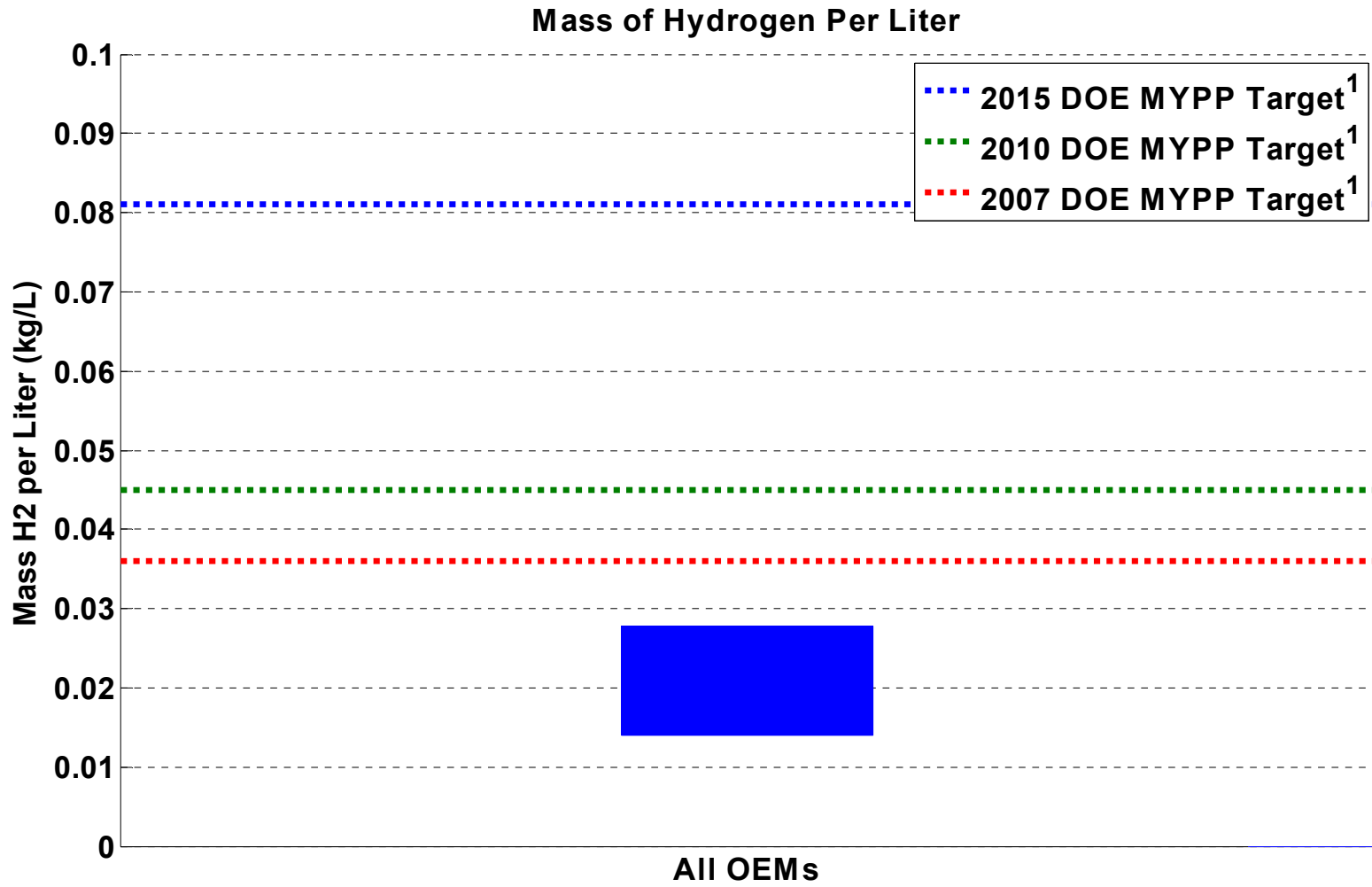
# CDP#10: Storage Weight % Hydrogen



Created: 23-Feb-2006

<sup>1</sup>Some near-term targets have been achieved with compressed and liquid tanks. Emphasis is on advanced materials-based technologies.

# CDP#11: Volumetric Capacity of H2 Storage

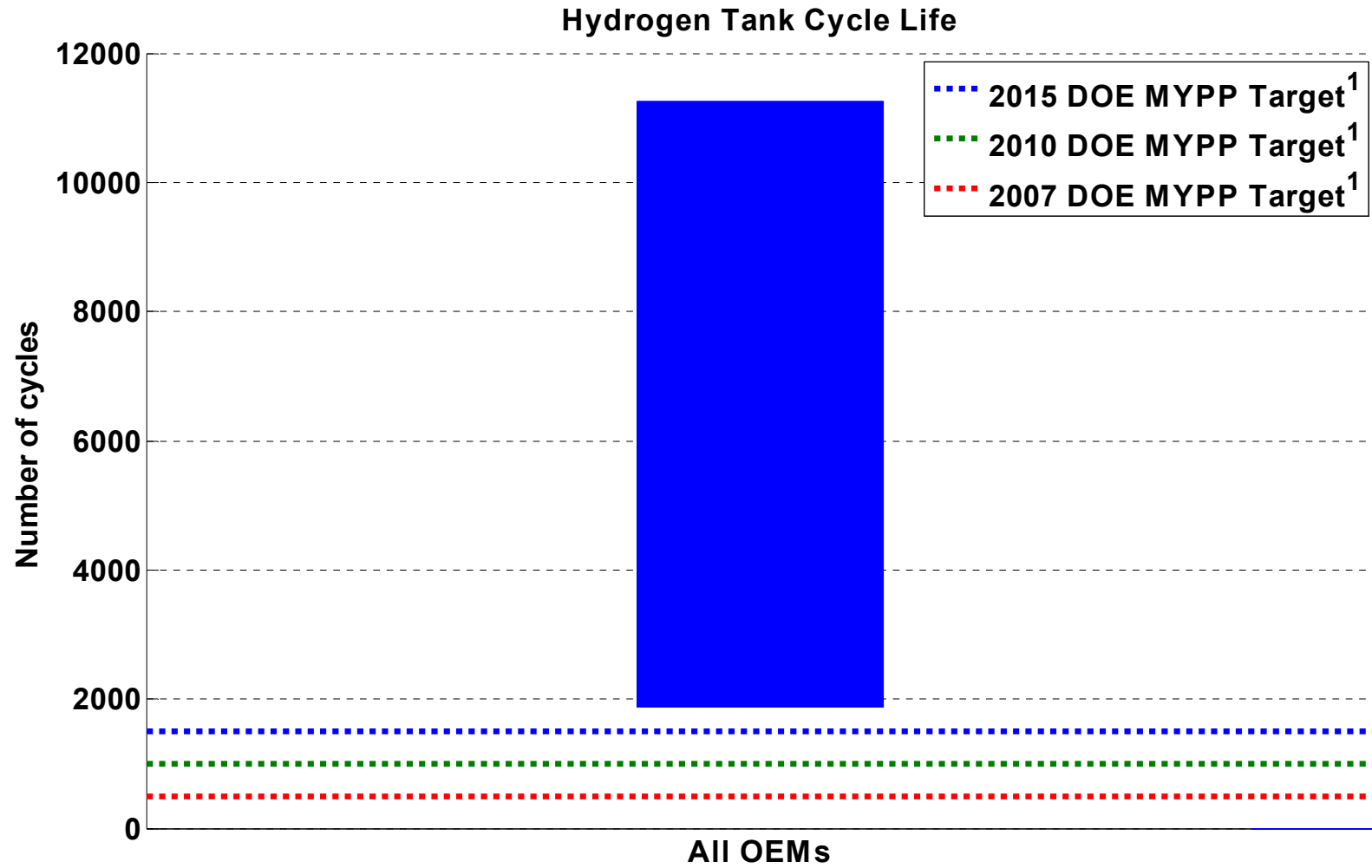


Created: 23-Feb-2006

<sup>1</sup>Emphasis is on advanced materials-based technologies.



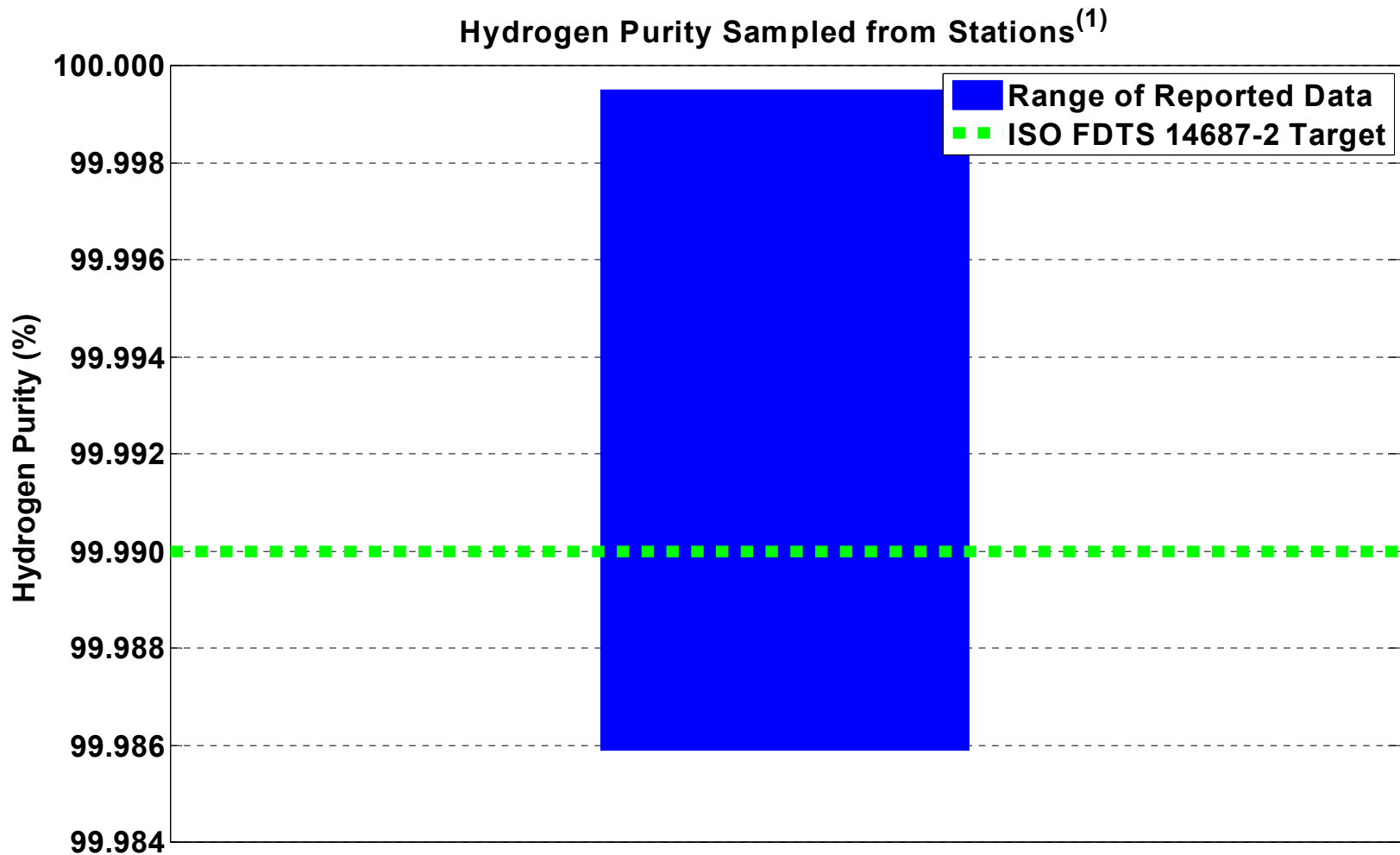
# CDP#12: Vehicle Hydrogen Tank Cycle Life



Created: 23-Feb-2006

<sup>1</sup>Some near-term targets have been achieved with compressed and liquid tanks. Emphasis is on advanced materials-based technologies.

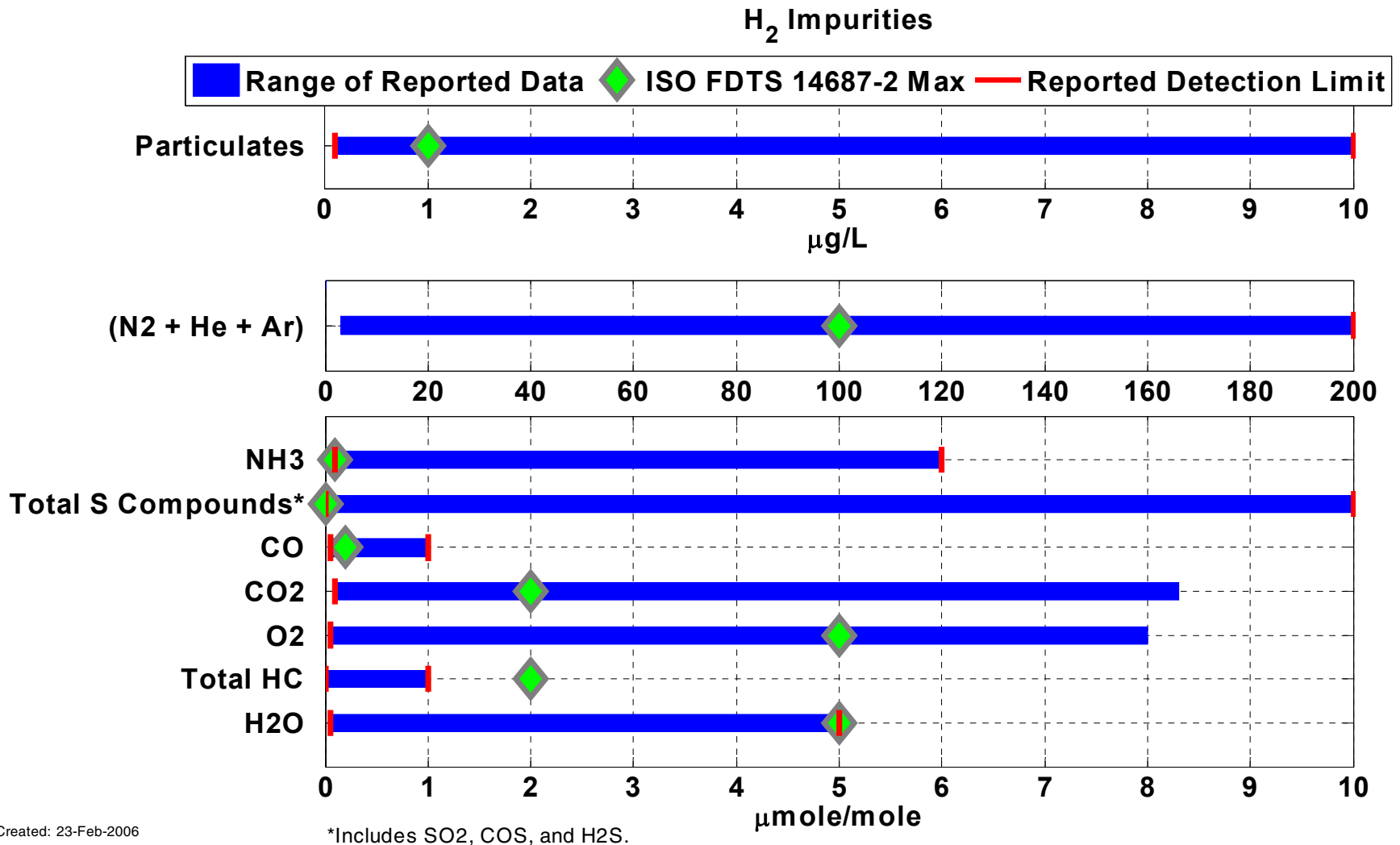
# CDP#16: H2 Purity Sampled from Stations



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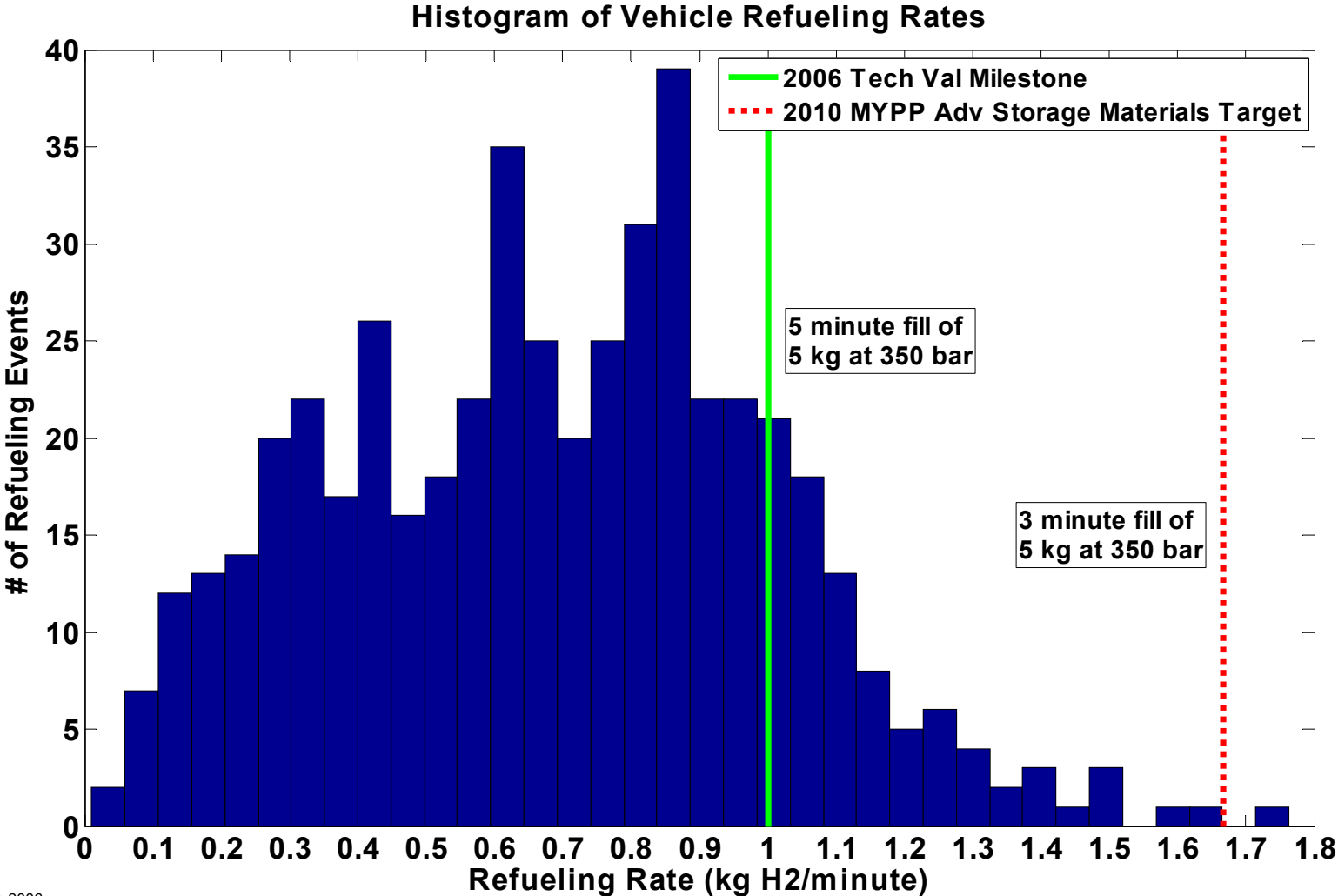
(1) Includes sampling from both electrolysis and reforming

# CDP#17: H<sub>2</sub> Impurities



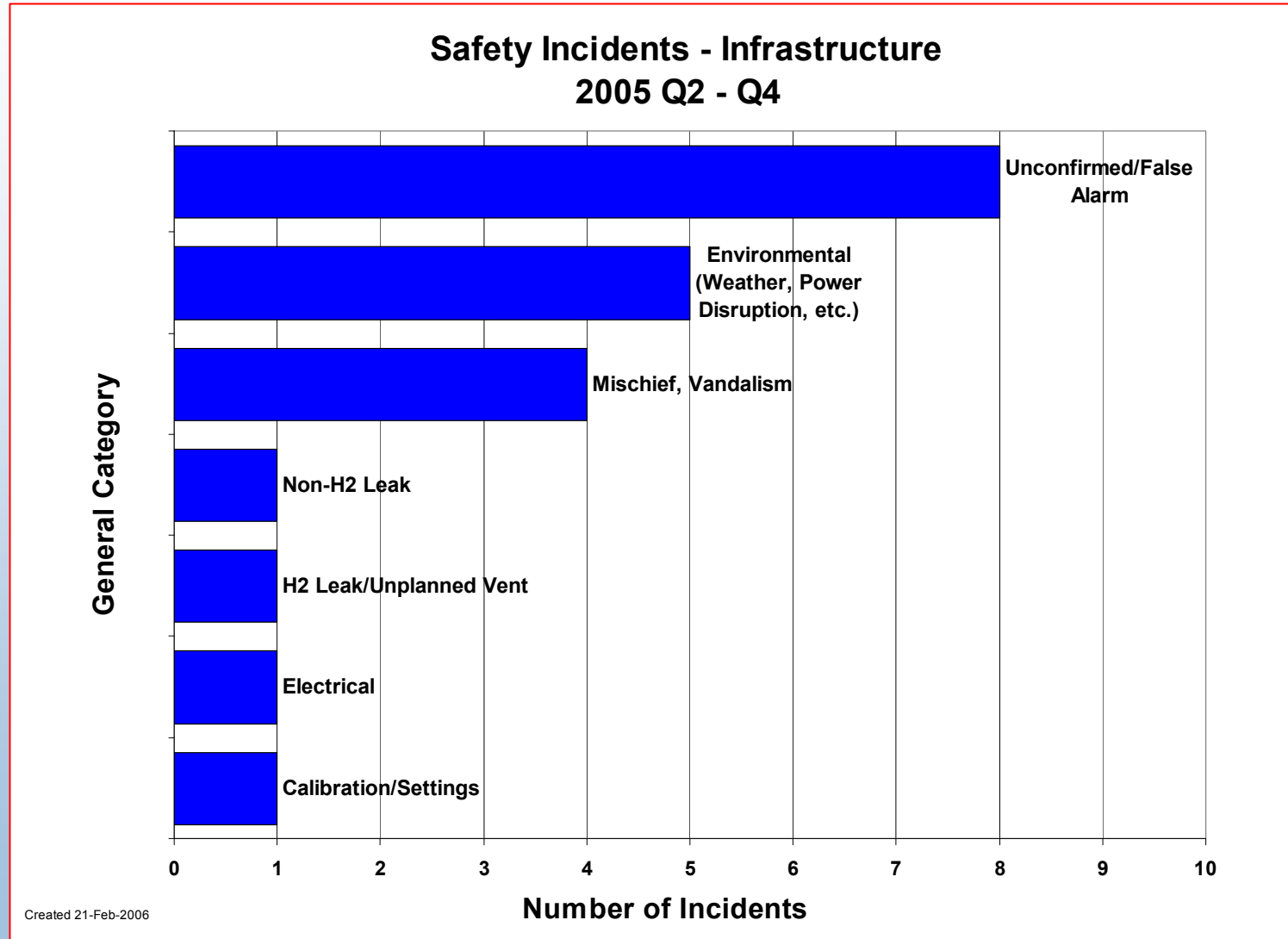
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# CDP#18: Histogram: Refueling Rate

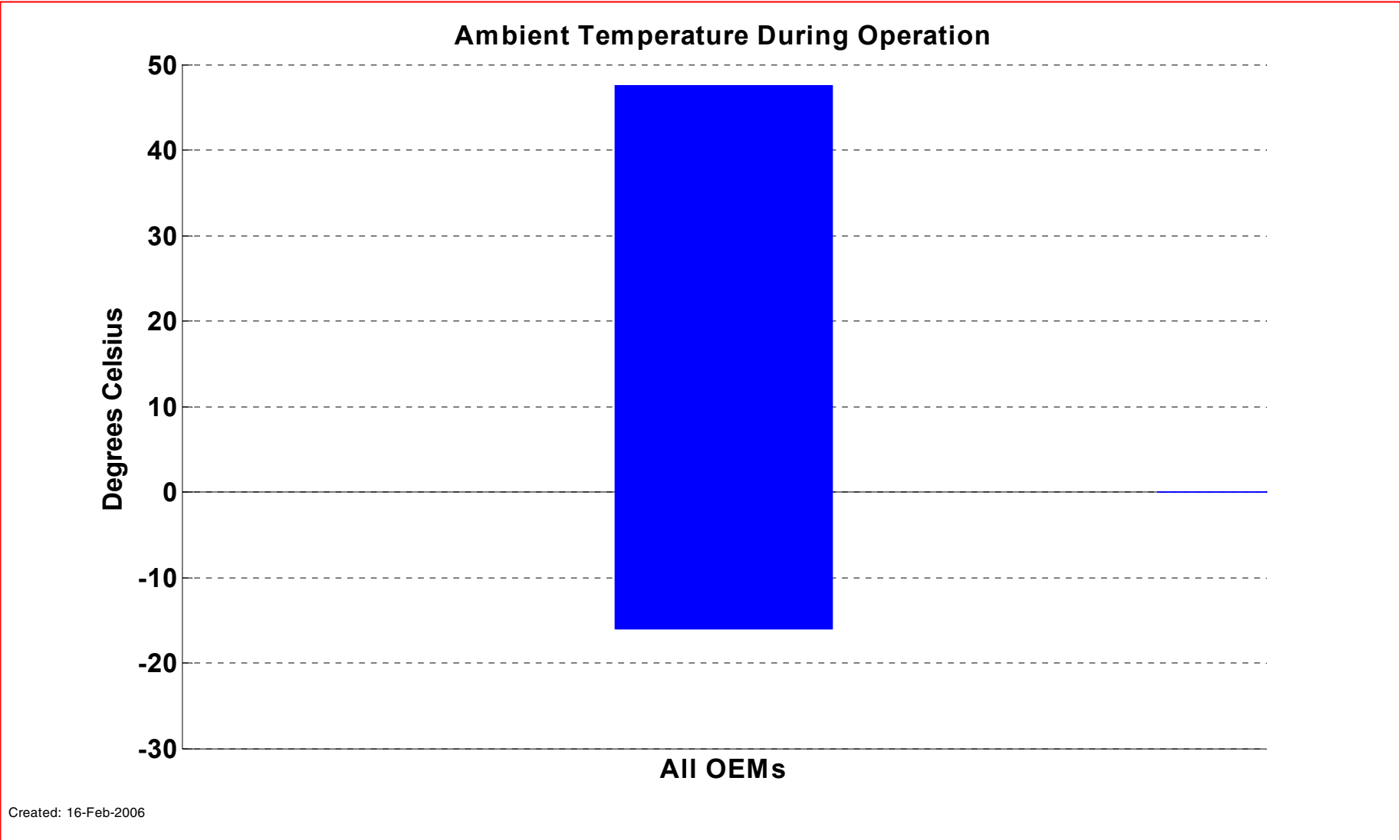


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# CDP#20: Safety Incidents – Infrastructure

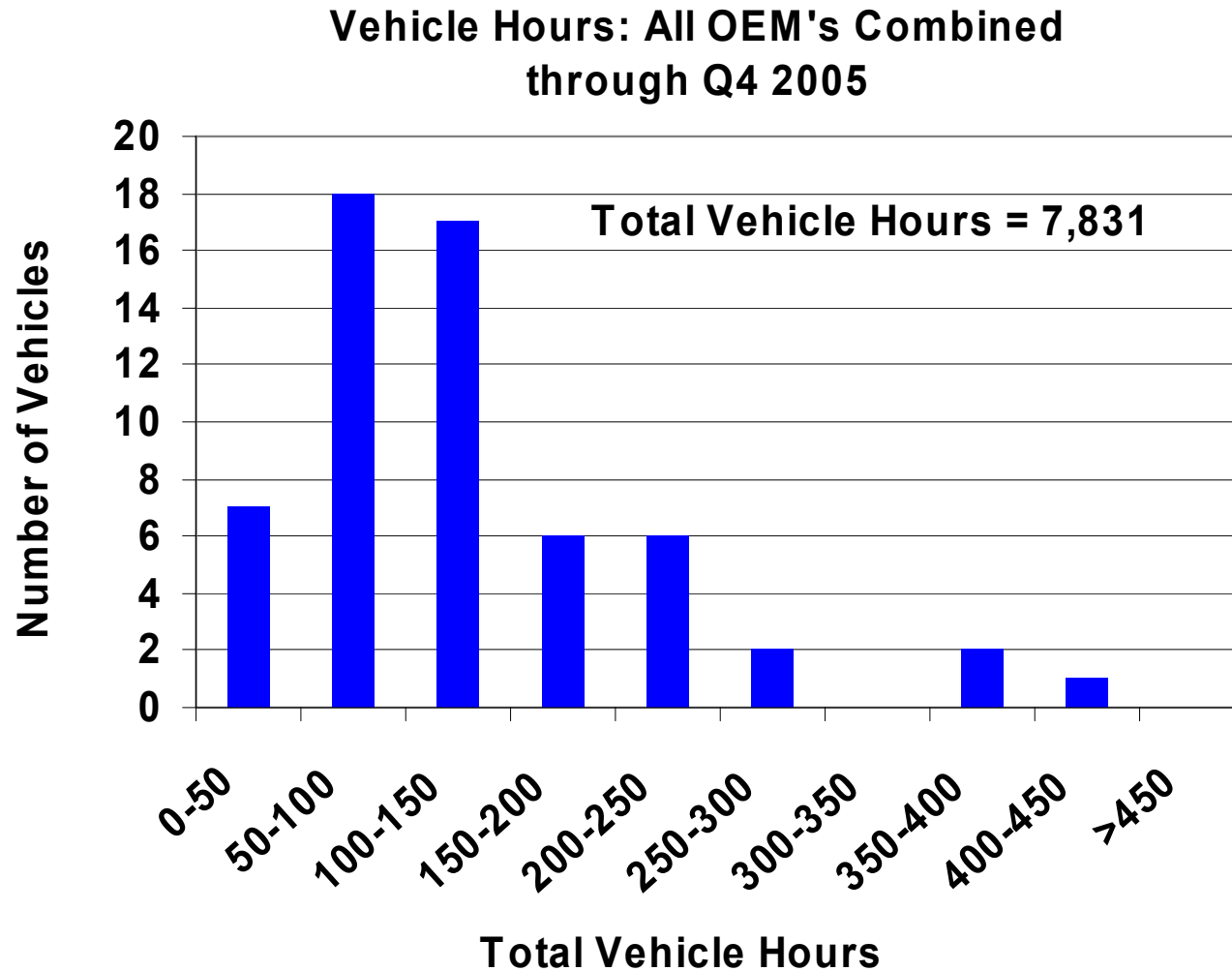


# CDP#21: Range of Ambient Temperature During Vehicle Operation



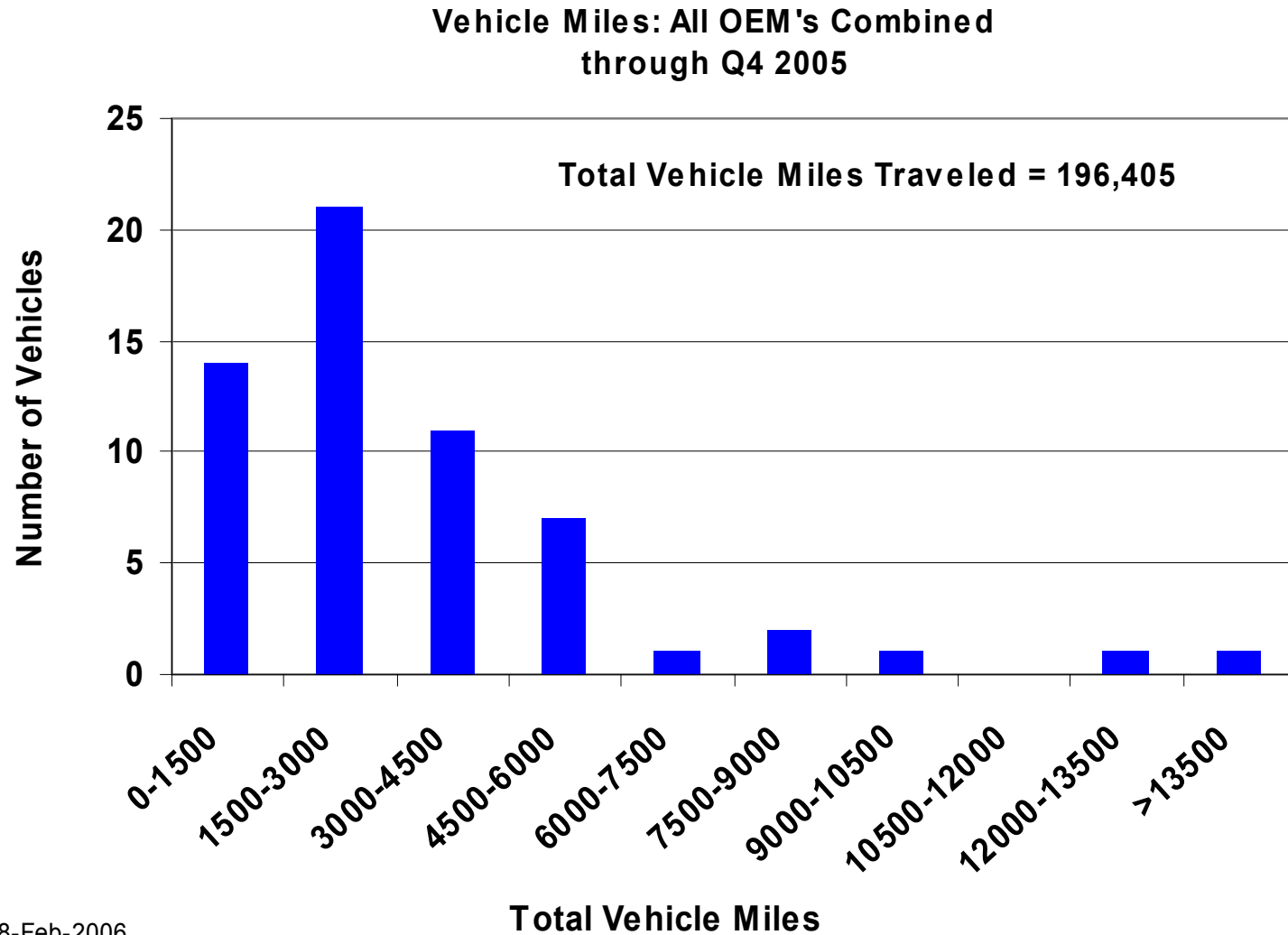
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# CDP#22: Vehicle Operating Hours



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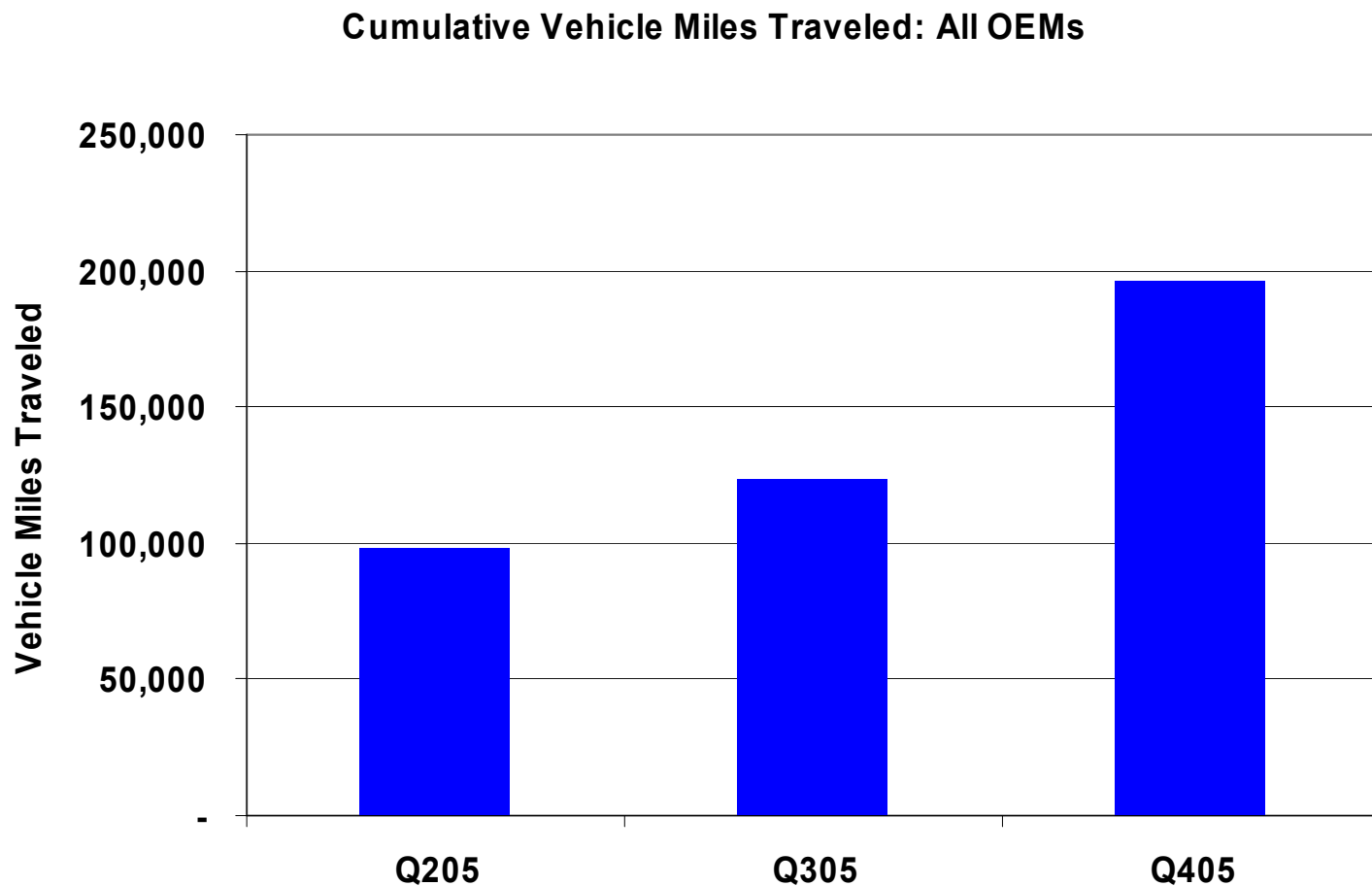
# CDP#23: Vehicles vs. Miles Traveled



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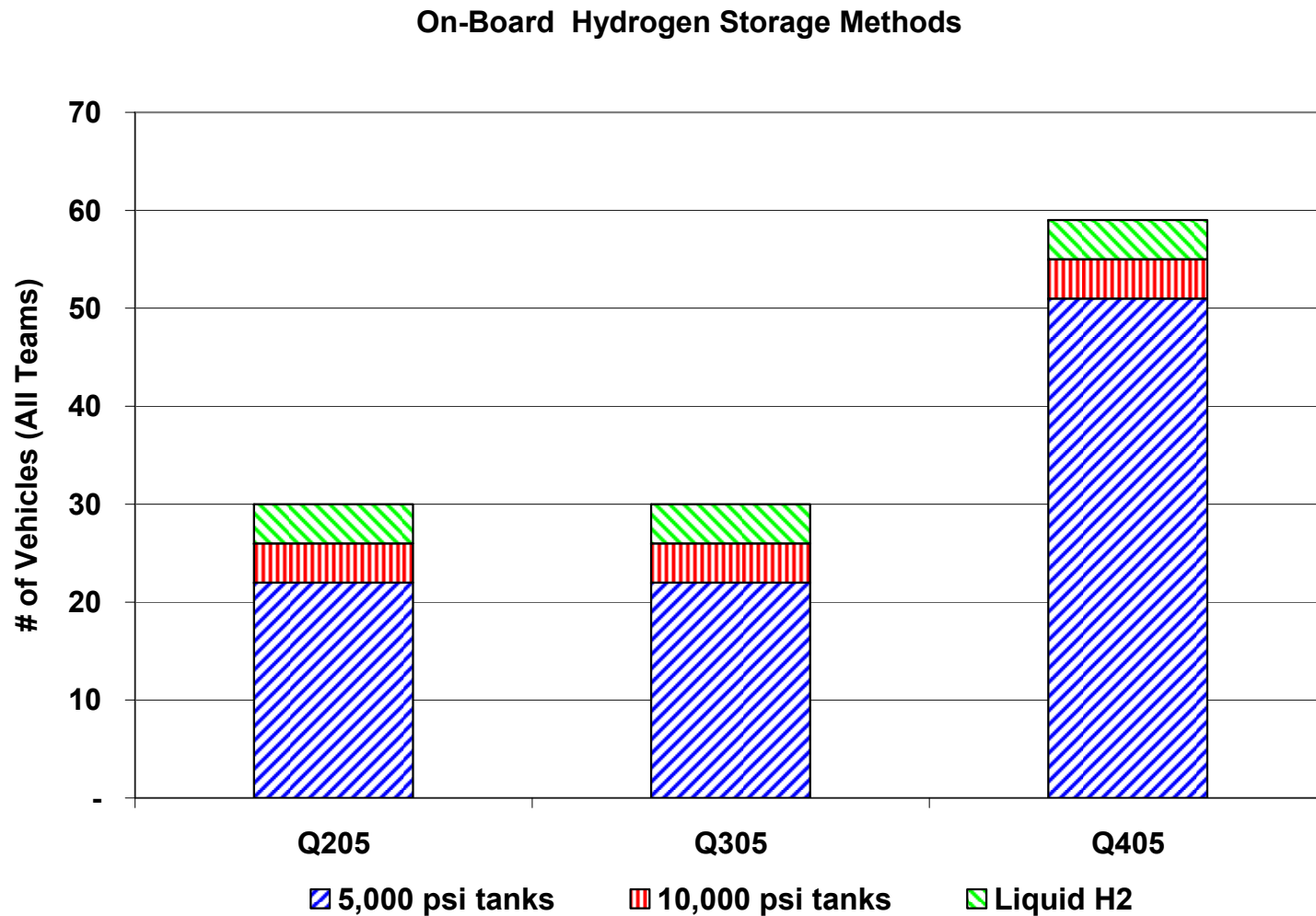


# CDP#24: Cumulative Vehicle Miles Traveled



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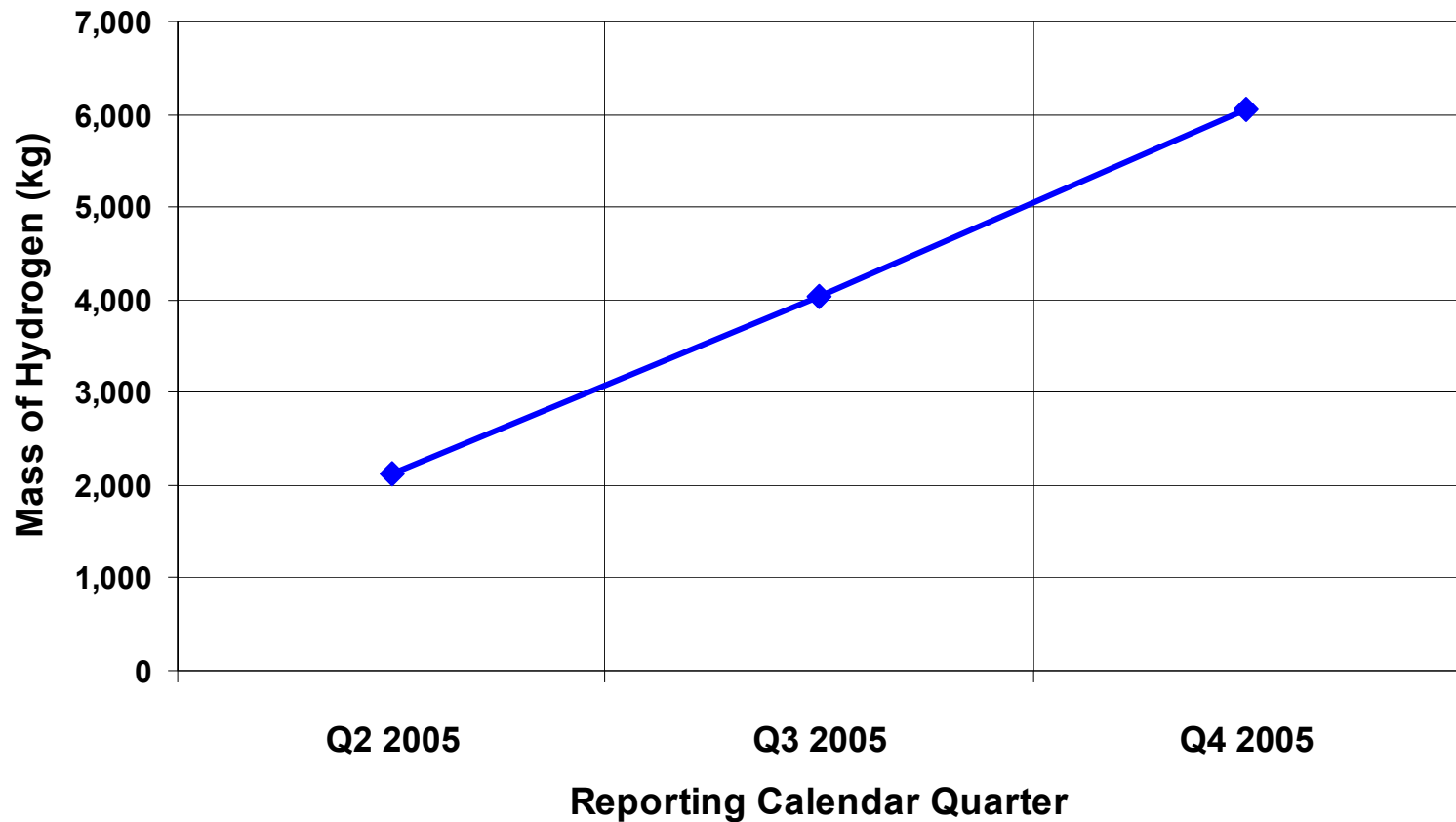
# CDP#25: Vehicle H2 Storage Technologies



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# CDP#26: Cumulative H2 Produced or Dispensed

**Cumulative Hydrogen Produced or Dispensed**  
All Teams Combined



Created 21-Feb-2006

# REPORT DOCUMENTATION PAGE

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