

Submitter: John Raymonda
On Behalf Of: self
Committee: Senate Committee On Energy and Environment
Measure, Appointment or Topic: SB685

I am writing to register my support for SB685. I speak as a (retired) PhD Chemist who performed research in which I built and used vacuum systems for handling hazardous gaseous materials, including methane and hydrogen, as well as other flammable gases. In this work, I took special precautions when working with hydrogen because hydrogen will leak from delivery systems much more readily than methane and other hydrocarbons because the hydrogen molecule is physically much smaller; it gets through much smaller leaks. In addition, hydrogen is much more explosive, molecule for molecule, than other gases. Therefore, it seems prudent for safety reasons for the end user of the methane carrying admixed hydrogen to be aware of its presence so that necessary precaution can be taken to ensure a leak-free delivery system. Like methane, hydrogen is odorless and colorless and also difficult to detect by electronic means (akin to carbon monoxide detectors, for example), so that it can build up to dangerous levels unnoticed until tragedy occurs. Thus, without commenting on the other provisions of this Bill, I believe that NOTIFICATION of hydrogen addition to methane should be mandatory.

As an additional note, I will point out that it is NOT CORRECT to say that hydrogen produces no greenhouse gases, since combustion of hydrogen produces water vapor, which, on a molecule-for-molecule basis, is a much more potent greenhouse gas than is carbon dioxide. Therefore, the benefits of hydrogen addition seem dubious.