

RIVERSIDE TRANSIT AGENCY
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September 18, 2008

TO: BOARD OF DIRECTORS

THRU: Larry Rubio, Chief Executive Officer

FROM: Scott Richardson, Planning and Program Manager

SUBJECT: Report on Compressed Natural Gas Fuel Tank Inspection Requirements for Private Vehicles

Summary: At the July 24, 2008, Board meeting, staff was directed to research state requirements for compressed natural gas (CNG) fuel tank inspections on private vehicles. This was in response to the explosion of a CNG fuel tank on a private van as it was being fueled at the Corona CNG fueling station on July 16, 2008. RTA has a public CNG fueling facility at the Hemet yard.

According to the California Department of Motor Vehicles and the California Air Resources Board, the State of California does not require the owners of private CNG vehicles to provide proof of inspections or certifications of fuel tanks in order to license the vehicles. On the other hand, commercial vehicle CNG tanks are required to be inspected by a certified inspector every three years. According to the Clean Vehicle Education Association (CVEA), the trade group that provides public information for the industry, no state requires periodic inspections of CNG fuel tanks on private vehicles.

Currently there are over 92,000 CNG vehicles in operation in the United States, and it is estimated that 30 percent are owned by private individuals.

Data from the CVEA shows that the rupture rate of CNG fuel tanks is extremely low. Since 1984 through August 1, 2008 in the United States, there have been 14 CNG fuel tank ruptures not attributable to a direct accident impact or a fire. Of these, 11 were in commercial vehicles and three were in private vehicles (this includes the Corona incident). Only one fatality was reported, and that was in a commercial vehicle whose fuel tank ruptured because of battery acid corrosion resulting from a prior vehicle collision, although the tank had been thoroughly inspected after the accident.

Statistically the overall current tank failure rate for all CNG vehicles is .003 percent per year, with a private vehicle tank failure rate of .001 percent, which is less than gasoline tank failures according to the CVEA. The CVEA also said that there have been past proposals in different states to create CNG fuel tank inspection and certification programs for private vehicles. However, because the incidence of fuel tank ruptures in CNG vehicles is so low, states do not see the need to establish such programs.

The CVEA is preparing to recommend that all public CNG fueling stations display a notification strongly advising tank inspections every three years. Based on the CVEA sign suggestion and wording, staff is in the process of producing a warning sign for installation at the Agency's public CNG fueling facility in Hemet.

Following is the sign wording:

Important Fueling Information

Caution: Flammable Gas

A. Stop motor

B. No smoking

C. No passengers in vehicle while fueling

D. Natural gas vehicle fuel cylinders should be periodically inspected by a certified inspector (normally every 3 years) to ensure safe operation of the vehicle. Contact vehicle or cylinder manufacturer for more information.

Staff will maintain regular contact with CVEA and support their efforts for CNG fuel tank safety. Staff will also report back to the Board on industry progress on tank safety standards.

Fiscal Impact:

None.

Committee Recommendation:

This item was discussed at the Board Administration and Operations Committee meeting of September 3, 2008. The Committee members unanimously approved and recommended this item to the full Board of Directors for their consideration.

Recommendation:

- Receive and file report.
- Direct staff to post a CNG safety information sign at its public fueling station.