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CNG & LPG Fuelling Station Road Signage

One Step from Becoming International Law

*THE EFFORT THAT BEGAN
IN 2004 TO CREATE ROAD
SIGNAGE FOR CNG FUELLING
STATIONS IS ONE FINAL
STEP CLOSER TO BECOMING
A PERMANENT PART OF
THE 1968 INTERNATIONAL
CONVENTION (TREATY) ON
ROAD SIGNS AND SIGNALS.*

At the request of German members of the original European NGV Association, in conjunction with the International Association for NGVs, a combined group of about 25 members of ENGVA Board of Directors, Committee Chairs and Vice Chairs, and the Executive Committee of the IANGV developed a modified CH₄ molecule logo to be placed on the standard fuel pump sign familiar on international roads to identify the location of CNG/NGV fuelling stations. The signage would not only alert drivers to the location of stations and help promote CNG as

a vehicle fuel but also would help distinguish for safety purposes CNG from LPG, which has been another problem that has resulted in a number of accidents in various countries.

Brought to the United Nations Working Party 1 on Traffic Safety, the group that also has jurisdiction over international road signs, the early natural gas 'molecule' logo was rejected by the (predominantly) group of lawyers and civil engineers. Instead, a 'shadow' blue fuel pump silhouette behind the traditional black fuel pump silhouette with the letters CNG became the recommended favorite of the Working Party. The CNG acronym was used despite the fact that provisions in the treaty generally prohibit letters in favor of symbols, in order to transcend different international languages. The European LPG Association (AEGPL) joined the lobbying effort and the LPG fuelling station signage, modeled on the CNG concept also became a reality. In 2006, after much debate about the artwork, the colors of the fuel pumps and the lettering, the two road signs were elevated to its current status of a 'Consolidated Resolution.' This provides a legal basis

that allows countries to begin using the signage but it is not an official part of the international treaty that gives road signs 'permanent' legal status around the world.

The IANGV, in cooperation with the AEGPL, promulgated another United Nations proposal in October 2008 to add the road signs to the 1968 Convention on Road Signs and Signals, a lengthy process involving approval by WP1, which then sends the proposed amendment to New York, where it is ultimately voted by the signatories to the Convention to be adopted as legal road signage. The IANGV/AEGPL amendment was put on the agenda of the WP1 November 2008 meeting but was not discussed due to a shortage of time. The amendment reappeared on the 24 March meeting agenda when the IANGV provided a Powerpoint presentation on behalf of the gaseous fuel interests. The topic was debated yet again, this time with the eye toward becoming a permanent part of the international treaty. Despite some comments about the use of lettering versus symbols (brought up by participants not present during the 2004-2006 debate) and concerns

about the lengthy amendment process to the Convention itself, the committee leadership agreed to move the IANGV/AEGPL proposed amendment forward and transform it into official Convention language. The last hurdle remaining will be at the September meeting of the WP1 where the proposal will come to a vote of the full committee.

IANGV has been busy lobbying various WP1 country delegates with national interests in both CNG and LPG, including Germany, Italy (which chairs the WP1), Switzerland, and others, in hopes of achieving success for the final step to become a permanent part of the Convention. The effort will continue through September when the issue again comes for, hopefully, its final turn prior to going to New York when countries are able to vote on these new inclusions in the international road signage symbols.

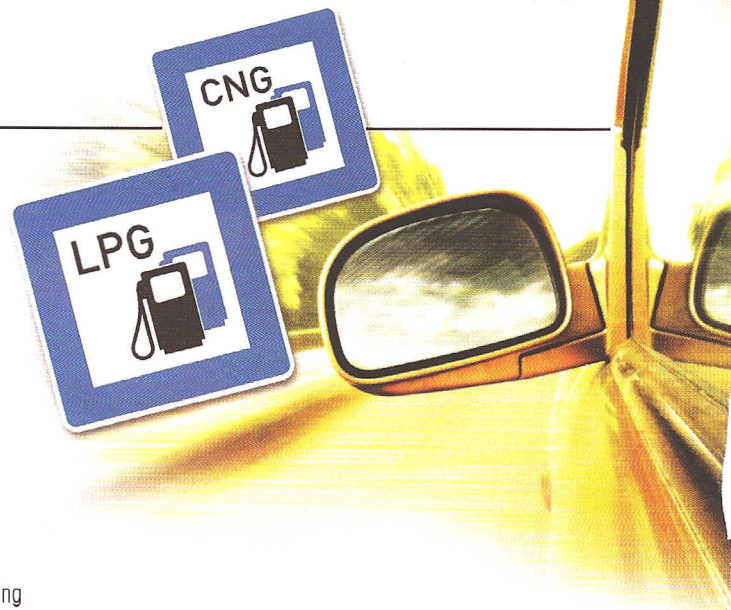
The Convention on Road Signs can be downloaded from http://www.unece.org/trans/roadsafe/wp1publication.html#road_signsignals_conv.

The formal amendment proposed by IANGV/AEGPL is available at www.iangv.org

Source: Dr. Jeffrey M. Seister, CEO, Clean Fuels Consulting

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CONSIDERATION OF AMENDMENT TO THE CONVENTION ON ROAD SIGNS AND SIGNALS 1968



Proposal by the International Association for Natural Gas Vehicles and the European Liquefied Petroleum Gas Association

1. Compressed natural gas (CNG) and liquefied petroleum gas (LPG), as economic, environmental fuel alternatives in the transport sector are achieving commercial acceptance in a growing number of countries around the world. In September 2003 the International Association for Natural Gas Vehicles (IANGV) introduced to the Working Party on Road Traffic Safety (WP.1) a request to formalize road signage for CNG fuelling stations. The concept to harmonize the road signage was embraced by Working Party due to the growing worldwide natural gas vehicle (NGV) market and to the concern about confusion that might be generated by different fuelling station signage being developed and used globally. Subsequently, the Working Party decided in 2005 to adopt a signage design advocated by Germany and Switzerland for both CNG and LPG.

2. In November 2008 an updated text of the Consolidated Resolution on Road Signs and Signals (R.E.2) was published (ECE/TRANS/WP.1/119) including, in section 1.13 and Annex 6, the provisions for CNG and for LPG. While this represents a substantial benefit for the NGV and LPG industries, the IANGV and the European Liquefied Petroleum Gas Association (AEGPL) would like to legitimize through an international legal instrument the road signage developed by WP.1, in order to facilitate the global harmonization efforts of NGV industry including fuel station operators and owners. Therefore, on behalf of the worldwide NGV and LPG industries, the IANGV and AEGPL propose that the WP.1 considers including the NGV and LPG fuel signage in the Convention on Road Signs and Signals, 1968.

I. MARKET DEVELOPMENT JUSTIFIES ACTION

3. When the IANGV made its first request to WP.1 in September 2003 to develop signage for CNG fuelling stations, there were just over 3 million natural gas vehicles and about 6,500 fuelling stations in 59 countries worldwide. Five years later there are 64 countries worldwide with a total of 8.8 million NGVs and nearly 12,700 fuelling stations, an increase of nearly 200% for

both vehicles and stations.

In Europe, where there were 500,000 NGVs and 1,550 fuelling stations in 2003 now there are 957,000 vehicles and 2,285 fuel stations serving CNG. Thus NGVs are becoming a fuel alternative and not just an alternative fuel in many parts of the world. The NGV industry forecasts, at current growth rates, as many as 65 million NGVs on the road by 2020.

4. In 2003 there were 10.3 million LPG vehicles worldwide and 40,000 LPG fuelling stations. The average growth of the LPG market has been 9% between 2000 and 2007.

5. Despite the strong growth of NGVs and LPG, most people do not know that vehicles can run on CNG or LPG. Consumers often are confused about the difference between the two fuels. Although both industries have developed fuel connectors on the fuel dispensers and fuel receptacles on vehicles that are distinctly different for CNG and LPG, there still have been safety incidents associated with confusion over the difference of these two fuels. As an example, there were cases when LPG tanks (designed for use at 15 bar) have been mistakenly (or intentionally) added to CNG vehicles (designed for 200 bar) and exploded during refuelling. CNG at 200 bar has been injected into LPG vehicles by consumers using variously adapted fuelling connectors and have exploded.

6. The principal reason for which specific CNG and LPG fuelling station signage was needed is that these fuels are only available at some regular refuelling stations. Appropriate signs simplified the task of vehicle drivers seeking to refuel with CNG or LPG. Some other reasons for which CNG and LPG fuelling station signage should become part of the Convention on Road Signs and Signals, 1968, are:

- ▶ To help clarify the difference in the fuels since safety is a primary concern, and to help people understand that LPG is not CNG and vice versa;
- ▶ To help legitimize the gaseous fuels not just as alternative fuels but as fuel alternatives to petrol and diesel now and in the future;
- ▶ To help legitimize and promote related

government policies for clean air, reduced global warming, and energy security as the networks for CNG and LPG refuelling continue to grow.

7. It is proposed that the following changes are made in the Convention of Road Signs and Signals, 1968.

8. It is recommend that amendments are made to the Convention Part I, Annex I, Section F (Information, Services or Facilities Signs), II (Descriptions), 2 (Miscellaneous Symbols), F.4 (Filling Stations), to include the signs F.4.1 LPG, and F.4.2 CNG (as above).

II. THE INTERNATIONAL ASSOCIATIONS SUPPORTING THIS ACTION

9. The IANGV, established in 1986 represents worldwide interests for the NGV industry. Most of the IANGV's membership consists of other regional and national NGV associations, whose individual and corporate members are, in turn, members of the IANGV. There also are individual country delegations who are IANGV members. The IANGV has been a registered NGO with the United Nations since 1995.

10. AEGPL, established in 1968 represents the European interests of the LPG vehicle industry.

ECONOMIC COMMISSION FOR EUROPE, INLAND
TRANSPORT COMMITTEE

Useful links

IANGV: <http://www.iangv.org/images/TRANS-WP1-100e.pdf>

UN site the EN version: <http://www.unece.org/trans/doc/2009/wp1/ECE-TRANS-WP1-2008-09r1e.pdf>

French and Russian versions also are available from the UN at: <http://www.unece.org/trans/roadsafe/wp12009.html>