



Testimony of

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Before the House Committee on Science and Technology,

Subcommittee on Energy and Environment

Legislative Hearing On

**H.R. 547, “The Advanced Fuels Infrastructure Research and
Development Act”**

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House Committee on Science and Technology, Subcommittee on Energy and Environment
Regarding H.R. 547

Mr. Chairman, Ranking Member Inglis, and Members of the Committee. My name is John Eichberger and I am Vice President of Government Relations for the National Association of Convenience Stores (NACS).

NACS is an international trade association comprised of 2,200 retail member companies representing an industry with more than 140,000 retail locations. In 2005, the convenience and petroleum retailing industry employed more than 1.5 million workers and sold nearly 80 percent of the motor fuels consumed in the United States.

The motor fuels industry is currently experiencing a significant transition to the next generation of fuels. As Congress contemplates policies to promote this transition, it must also understand that there are many complicated challenges facing retailers and the distributors that serve them that must be overcome before the market can efficiently offer these new fuels to consumers.

H.R.547, The Advanced Fuels Infrastructure Research and Development Act, initiates federal research and development projects to help the petroleum industry overcome some of these hurdles in the most cost efficient manner, thereby facilitating the smooth transition to these the new fuels. NACS supports the goals of this legislation and, today, I would like to comment on the two primary provisions independently.

Alternative Fuels

Clearly, the political momentum to bring alternative fuels to market is strong and growing. I cannot stress enough that petroleum retailers are agnostic regarding the type of fuels they sell, provided there is sufficient supply and consumer demand for those products. As supply and demand increase for alternative fuels via market forces and government programs, however, there remain significant hurdles inhibiting their smooth introduction to market. H.R.547 seeks to address one of these challenges—the incompatibility of certain fuels with existing storage and distribution infrastructure.

Compatibility Issues

This issue of incompatibility carries with it potentially high costs to retailers seeking to convert their facilities to dispense these alternative fuels. A retailer must to determine precisely what equipment is involved in his system and for which fuels that equipment is certified.

Some reports have indicated that certain components commonly found in storage and dispensing infrastructure may be incompatible with fuels like E-85 and B-100. These may include components made with aluminum, brass, copper and zinc or containing various elastomers, thermoplastics, thermosets, ceramics, pipe dope and organic coatings. Such metal components could be vulnerable to corrosion when in consistent contact with these fuels, while non-metal



components could be subject to swelling, degradation, softening, embrittlement and delamination.¹

However, there remains a considerable amount of uncertainty regarding the extent to which these materials may be vulnerable and retailers cannot make broad assumptions regarding the compatibility of their equipment.

In an effort to address the confusion that exists with regards to compatibility, the Petroleum Equipment Institute has provided on its website a list of equipment certified by the manufacturer and listed by a laboratory for compatibility with certain fuel types.² Retailers must work with their equipment suppliers to determine specifically what equipment must be replaced and what is already compatible with the fuel they are considering. In some cases, retailers may find it necessary to replace their entire system at significant expense.

Underwriters Laboratories Inc. (UL) is the definitive resource to certify equipment as compatible. On October 5, 2006, UL suspended certification of all dispensers for compatibility with fuels containing greater than 15 percent alcohol. UL cited as the reason for this suspension: “Research indicates that the presence of high concentrations of ethanol or other alcohols within blended fuels makes these fuels significantly more corrosive. This may result in the fuel chemically degrading the materials used in fuel-dispenser components, and may ultimately affect the dispenser's ability to contain the fuel.”

As of this month, despite the assistance of a technical conference and receipt of various supporting documents, UL has been unable to resolve its concerns and is preparing to conduct its own round of testing later this year.³

This is an important issue for retailers. Most jurisdictions require equipment to be UL certified before a retailer can put it into operation. Given the current state of non-approval by UL, many retailers who have already installed E-85 fueling systems continue to operate under agreements with local officials. While this may satisfy local operating requirements, it does not absolve retailers of potential liability associated with a petroleum or alternative fuels release caused by one of these dispensers. Therefore, the continued deliberations at Underwriters Laboratories and the rapid resolution of this issue is of critical importance to retailers.

Clearly, compatibility between alternative fuels and existing infrastructure is a serious issue that can cost retailers thousands of dollars.

The Department of Energy has posted on its website invoices for the installation of E-85 compatible equipment. Some of the prices quoted on that site are \$35,274, \$15,383, \$57,922,

¹ “PEI/NACS 2006 Alternative Fuels and Material Compatibility,” Presentation by Edward W. English, II, Fuel Quality Services, Inc. <http://www.pei.org/pdf/EdEnglish.pdf>

² Petroleum Equipment Institute, <http://www.pei.org/altfuels/ByFuel.asp>

³ “Progress Update on E-85 Fuel-Dispensing Equipment Requirements—January 2007” Underwriters Laboratories Inc. www.ul.com/regulators/E-85up.cfm



\$27,321, and \$24,105. These costs are significant, especially when one considers that the average pre-tax profit for a convenience store in 2005 was only \$42,000.⁴

This is one of the primary reasons the petroleum retail industry is slow to adopt these alternative fuels. The legislation under consideration today, however, if successful, will hopefully address the equipment compatibility challenges in a more cost efficient way and mitigate this significant barrier to entry. For that reason, NACS supports this part of the legislation.

Other Hurdles to Installation

However, I must caution this Committee, and the entire Congress, that the issue of incompatibility is only one of the hurdles that impede an individual retailer's decision to install E-85. Consequently, resolving that issue alone will not automatically result in widespread availability. While other congressional committees will determine federal policy and government programs regarding alternative fuel availability, I would like share with you the other considerations facing retailers because I believe it is pertinent to Congress' broad consideration of the alternative fuels issue.

First, while I will acknowledge that the auto manufacturers are increasing their production of flexible fuel vehicles equipped to run on E-85, the number of these vehicles currently on the road remains relatively small and the number of drivers who know their vehicles are specially equipped is even smaller. This means a retailer must carefully evaluate the level of demand for E-85 in his operating market to determine if it makes business sense to dedicate a dispenser to sell the product. The typical convenience store operates four multi-pump dispensers, each providing two fueling positions. If E-85 is sold from one of these dispensers, gasoline customer throughput capacity is reduced by 25 percent due to the reduction in fueling positions. Unless there is strong demand for E-85, this could substantially affect the retailer's overall business model.

Secondly, not every retail location can accommodate an E-85 storage tank. Many facilities maintain only two underground storage tanks—one for premium unleaded and one for regular unleaded. Midgrade often is produced by mixing the two at the dispenser. To install E-85, the retailer must either install a third tank, which may not be physically possible depending upon the size of the facility, or replace one of these two gasoline tanks. Clearly, this is not a viable option.

Retailers with additional tanks, perhaps containing diesel fuel, must make a decision to replace that product with the alternative fuel. Again, this is a decision that will have direct implications for the company's business model.

Third, retailers must be cognizant of the price sensitivity of the consumer. The retail gasoline marketplace is the most competitive in the nation—large price signs on the corner empower consumers to shop by price without ever leaving their vehicles. And they do.

According to consumer polling just completed this month, NACS found that two-thirds of consumers shop by price and more than one in four will go out of their way—such as turn left

⁴ U.S. Department of Energy, <http://www.eere.energy.gov/afdc/E-85toolkit/cost.html>



across a busy intersection—to save one penny per gallon. Given the fact that E-85 provides the consumers with approximately 25 percent fewer miles per gallon, a retailer must be able to sell it at a substantial discount compared to gasoline in order to satisfy the consumers' economic interest. NACS members who do offer E-85 report that when the alternative fuel is priced similar to gasoline they experience a significant drop in gallons sold. Therefore, retailers must assess the availability of E-85 in their market and the variable price relationship of that product to gasoline. Often, there is a favorable price differential because of government incentive programs, but sometimes there is not. This issue must be taken into consideration.

My final point on alternative fuels is to applaud Congress for its interest in assisting retailers to overcome the hurdles presented by these new fuels, but to make sure that Congress understands the complexities of the issue. Section 3 of H.R. 547 could substantially improve the economic calculations for retailers, but installation decisions will be based upon a balancing of the various market factors involved.

Diesel Sulfur

With regards to Section 4, "Sulfur Testing for Diesel Fuels," NACS again supports the research program to develop an affordable and reliable testing method to ensure compliance with federal regulations.

In December 2000, the Environmental Protection Agency (EPA) promulgated rules requiring a 97% reduction in the sulfur content of on-road diesel fuel. Phase-in of that program began in June 2006 and, effective October 15, 2006, any retailer claiming to sell ultra low sulfur diesel, or ULSD, must ensure that its sulfur level does not exceed 15 parts per million. The engine manufacturers report that sulfur levels above that limit could damage emissions and engine technology of model year 2007 and later vehicles. If inspectors find that the ULSD does in fact exceed this sulfur limitation, a retailer can be subject to fines up to \$32,500 per violation, as established by the Clean Air Act.

If found in violation of the sulfur limitation, the regulations provide the retailer with a three part defense. First, a retailer must demonstrate through product transfer documents that all ULSD delivered to the facility was certified as compliant by the distributor. Second, a retailer must be able to demonstrate that contamination of the product was not caused by the retailer. And third, a retailer must have its own credible quality assurance program designed to ensure compliance with the sulfur limitation.

This third defense is the primary challenge. The only way to completely ensure continued compliance is to test every batch. Unfortunately, testing must be conducted in a laboratory, is expensive and may take 48 hours to return results. Consequently, it is not practical for a retailer to hold a load of ULSD aside until confirmation of such test results. Therefore, retailers are left to design a quality assurance program based upon a specific process of inventory management supported by evidentiary testing results. While this is a defensible method to ensure quality, it is not perfect.

NACS has been concerned for many years that there exists no reliable, affordable sulfur test for retailers to use on a more frequent basis to ensure regulatory compliance. H.R. 547 seeks to



develop such a test. If successful, retailers and others throughout the distribution system will have the ability to conduct quality assurance tests more frequently, thereby increasing the confidence of their customers that the product sold as ULSD does indeed meet the sulfur limit of 15 parts per million.

Conclusion

Mr. Chairman, these conclude my remarks. On behalf of the member companies of NACS, I thank you for your efforts to address these specific retailer challenges and I appreciate the opportunity to share our views on this legislation. I would be happy to answer any questions my testimony may have raised.