

# HOT FUELS: BIG OIL'S DOUBLE STANDARD FOR MEASURING GASOLINE

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## HEARING

BEFORE THE  
SUBCOMMITTEE ON DOMESTIC POLICY  
OF THE  
COMMITTEE ON OVERSIGHT  
AND GOVERNMENT REFORM  
HOUSE OF REPRESENTATIVES

ONE HUNDRED TENTH CONGRESS

FIRST SESSION

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## CONTENTS

---

	Page
Hearing held on June 8, 2007 .....	1
Statement of:	
Columbus, R. Timothy, general counsel, National Association of Convenience Stores, and general counsel, Independent Gasoline Marketers of America .....	102
Suiter, Richard, Weights and Measures Coordinator, National Institute of Technology and Standards; Michael Cleary, chairman, National Conference on Weights and Measures; Martin Gafinowitz, CEO, Gilbarco Veeder-Root; and John Seibert, owner-operator Independent Truck Drivers Association .....	22
Cleary, Michael .....	28
Gafinowitz, Martin .....	42
Seibert, John .....	45
Suiter, Richard .....	22
Letters, statements, etc., submitted for the record by:	
Cleary, Michael, chairman, National Conference on Weights and Measures, prepared statement of .....	31
Columbus, R. Timothy, general counsel, National Association of Convenience Stores, and general counsel, Independent Gasoline Marketers of America, prepared statement of .....	106
Cummings, Hon. Elijah E., a Representative in Congress from the State of Maryland, prepared statement of .....	13
Davis, Hon. Danny K., a Representative in Congress from the State of Illinois, prepared statement of .....	9
Gafinowitz, Martin, CEO, Gilbarco Veeder-Root:	
Information concerning average temperature .....	96
Prepared statement of .....	43
Kucinich, Hon. Dennis J., a Representative in Congress from the State of Ohio:	
Letter dated May 30, 2007 .....	2
Prepared statement of .....	6
Seibert, John, owner-operator Independent Truck Drivers Association, prepared statement of .....	47
Suiter, Richard, Weights and Measures Coordinator, National Institute of Technology and Standards:	
Information concerning temperature compensation .....	68
Prepared statement of .....	24
Watson, Hon. Diane E., a Representative in Congress from the State of California .....	17



## **HOT FUELS: BIG OIL'S DOUBLE STANDARD FOR MEASURING GASOLINE**

**FRIDAY, JUNE 8, 2007**

HOUSE OF REPRESENTATIVES,  
SUBCOMMITTEE ON DOMESTIC POLICY,  
COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM,  
*Washington, DC.*

The subcommittee met, pursuant to notice, at 9 a.m., in room 2154, Rayburn House Office Building, Hon. Dennis J. Kucinich (chairman of the subcommittee) presiding.

Present: Representatives Kucinich, Cummings, Watson, and Davis of Illinois.

Staff present: Jaron R. Bourke, staff director; Jean Gosa, clerk; Auke Mahar-Piersma, legislative director; and Natalie Laber, press secretary, Office of Congressman Kucinich.

Mr. KUCINICH. The committee will come to order. This is a meeting of the Domestic Policy Subcommittee of the Oversight and Government Reform Committee. Good morning. I am Congressman Dennis Kucinich, chairman of the committee. We are joined this morning by Danny Davis, a Congressman from Illinois, and by Congressman Cummings of Maryland.

The title of today's hearing is, "Hot Fuels: Big Oil's Double Standard For Measuring Gasoline." This morning we are going to hear from two panels of witnesses. I'll be introducing them shortly.

I would like to say that first of all, without objection, the chairman and the ranking minority member will have time to make opening statements, followed by opening statements of other Members not to exceed 3 minutes. Without objection, Members and witnesses may have 5 legislative days to submit written statements or extraneous materials for the record.

Now, in connection with that, I have a statement from the Partnership for Uniform Marketing Practices [PUMP] Coalition and without objection this statement will be entered into the record.

I also have a letter from Bart Gordon who is the chairman of the Committee on Science and Technology of the U.S. House. It is a copy of a letter that he sent to the National Academy of Sciences. Without objection, that correspondence will also be put in the record.

[The information referred to follows:]

FRANK RAYBURN GORDON, TENNESSEE  
CHAIRMAN

RALPH M. HALL, TEXAS  
RANKING MEMBER

U.S. HOUSE OF REPRESENTATIVES  
COMMITTEE ON SCIENCE AND TECHNOLOGY

SUITE 2320 RAYBURN HOUSE OFFICE BUILDING  
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May 30, 2007

Dr. Ralph J. Cicerone, President  
National Academy of Sciences  
500 Fifth Street, NW  
Washington, DC 20001

Dear Dr. Cicerone,

Recent increases in the price of transportation fuel, particularly gasoline and diesel fuel, have created a great deal of sensitivity about equitable and reasonable pricing of these fuels. As a part of the public discussion about fuel pricing, questions have been raised about issues related to retail pump temperature variations and their impact on volume of fuel sold at retail outlets. More specifically, some have argued for the broad use of automatic temperature compensation (ATC) devices at retail transportation fuel distribution outlets.

Although I believe it is important to ensure fair and transparent pricing, I am concerned that adequate scientific analysis has not been completed to determine whether a problem exists and if ATC devices are necessary. The absence of adequate information has prompted some to advocate for government requirements for temperature adjusted volume of motor fuel. Advocates have argued that fuel sold at temperatures greater than 60 degrees Fahrenheit expands, resulting in the delivery of less product to the consumer. The petroleum retailing industry, however, asserts that such variations in the measured volume of a gallon of motor fuel are minimal and that converting the infrastructure to adjust for temperature would be cost prohibitive and detrimental to the market.

I am concerned that the use of automatic temperature compensation devices, whether mandatory or permissive, is premature. Documentation of whether a problem exists is surely a better first step than the deployment of devices that would impose a large financial burden to retailers and may not in fact be beneficial to consumers.

Therefore, I am writing to request that the Academy conduct a study to determine whether a problem exists and whether the broad use of ATCs is warranted. I would request that you examine the following issues:

Dr. Cicerone  
National Academy of Sciences Study Request  
May 30, 2007  
Page 2 of 2

- Determination of actual variations in temperature of dispensed fuel
- Factors influencing dispenser temperature, such as tank temperatures
- Geographic and diurnal temperature factors
- Seasonal temperature variations
- Fuel purchasing patterns of consumers and commercial vehicle operators
- Relative impacts of other fuel aspects affecting BTU delivery, including alternative fuels, fuel additives, transportation methods, delivery methods, and specific delivery equipment
- Analysis of the ambient temperatures at the nozzle and deviation of that temperature from the temperature of the fuel in the underground storage tank
- Analysis of actual temperature variation over a defined time period across the country
- Possible alternatives to the use of Automatic Temperature Compensator equipment, including adjustment of reference temperatures for currently utilized devices

I appreciate your attention to this matter and look forward to reviewing your findings. In the interim, please feel free to contact Louis Finkel of my committee staff at (202) 225-6375 with any questions or for clarification regarding this request.

Sincerely,



Bart Gordon  
Chairman

BG/lf

Mr. KUCINICH. I want to welcome the witnesses and the committee very much appreciates your presence here. I want to begin by saying that everyone knows that gasoline prices rise during the summer. Everyone also knows that his or her gas mileage suffers during the summer. But it is a little-known industry secret that the amount of gasoline, when you put it in your tank, when you fill up in the summer, is less than the amount in the winter in terms of weight and energy content. Scientists call this the thermal expansion of gasoline.

And the oil industry has known for 100 years that gasoline expands with temperature. As it warms, gasoline expands by volume but not by weight or energy content. Therefore, a gallon of gasoline at 90 degrees weighs less and has less energy content than a gallon at 60 degrees. That is part of the reason why gas mileage suffers in the summer.

Now, since the 1920's, the oil industry has taken temperature into account for wholesale transaction. And they use a 60-degree Fahrenheit standard when measuring gasoline at wholesale. In other words, when the sale of gasoline is between two members of the oil industry, they adjust for temperature, no matter what the actual temperature of the gasoline. Therefore, they make sure that the same amount of gasoline by weight and energy content is transacted. They standardize wholesale transactions. They remove the variable of temperature from their sales to each other.

But the oil industry does not adjust for temperature in retail sales to consumers. When the temperatures of gasoline fall below the industry standard, as they do in many States in the winter, gasoline contracts and the weight of a gallon rises. But when temperatures rise above the industry standard, as they do in all States during the summer and in many States during most of the year, consumers pay what we call a Hot Fuel Premium when gasoline prices exceed or are sold at above 60 degrees.

Existing technology can correct for temperature at the retail level. That technology is known as automatic temperature compensation [ATC]. One of our witnesses today is the largest manufacturer of automatic temperature compensation devices in the world. The oil industry is not known for lacking business sense. In Canada the oil industry moved quickly to adopt automated temperature compensation at the retail pump. We will be hearing testimony today that Canadian gasoline stations are almost universally equipped with temperature compensating technology.

But in the United States, where, of course, temperatures are often considerably warmer than they are in Canada and they are warmer than the industry standard of 60 degrees, the oil industry has resisted equipping their gas stations with temperature compensating technology. Even after the State of California approved that automatic temperature compensation for use and sale in the State, no oil company purchased it. In fact, they resist even talking about the subject.

We invited ExxonMobil and Shell to testify today because they have large commercial presences in both Canada and the United States. And we hoped they could explain why they decided to do one thing in Canada and another thing in the United States. Unfortunately, they refused to appear.

I just want to go over this again. These companies do business in both countries. They have one standard in Canada, where they want to make sure they are not going to lose money if the temperature drops below 60 degrees. So they have automatic temperature control compensation so they can sell gasoline at a constant volume without losing money. And in the United States, a whole different standard. Temperatures are higher, they rise, people end up in this country paying a lot of money for gas they are not getting.

So in a way it is understandable that ExxonMobil and Shell wouldn't show up in front of a committee of the U.S. Congress to explain. The majority staff of the subcommittee conducted a study of the hot fuel premium American consumers were likely to pay during the coming summer season. Using actual gasoline temperatures by month and by State and forecast prices for the summer, the staff calculated that gasoline retailers will sell over 500 million gallons of gasoline that are in effect created for free by thermal expansion. And consumers will pay over \$1.5 billion for those heat-expanded gallons, and they will be getting less energy for it. People are paying for gasoline they are not getting.

Now, this is Big Oil's double standard. When they sell gasoline to each other it is temperature-adjusted so they are not cheating each other. But at retail, the oil companies oppose temperature compensation in this country. And although they oppose temperature compensation for retail sales in the United States, they universally use temperature compensation at retail in Canada.

This summer this double standard will be worth \$1.5 billion to the oil industry. Every American consumer is paying for this gasoline they are not getting. And it could be costing people, depending on how much they are filling up their tank, it could be costing each American motorist between 2 cents and eight cents per gallon.

Now, think of how American consumers are going to respond to this when they realize they are already paying incredible prices for gasoline. And on top of that, they are paying for gas they are not getting. Understandably, then, there is much riding on the National Conference on Weights and Measures which will, this July, decide whether or not to encourage the use of the temperature compensation devices at the retail level.

We will hear today from their chairman about their process, pressures and prospects. The bottom line we hope to answer today is not so much whether consumers may be overpaying for gasoline—we think there are some broadly accepted opinions on that—but the more basic question of what is the fair method of selling gasoline.

There is a saying in America, "What's fair is fair." Well, is it fair that the oil industry compensates for temperature at wholesale transactions, or is it fair when the industry sells uncompensated gallons at retail? And what is the fairness in the oil industry treating itself one way and consumers the other; having one standard in Canada and another in the United States, causing American motorists to have to pay a premium for hot fuel?

These are the questions we are probing today.

[The prepared statement of Hon. Dennis J. Kucinich follows:]

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**Congress of the United States**  
**House of Representatives**

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CHAIRMAN,  
SUBCOMMITTEE ON DOMESTIC POLICY  
COMMITTEE ON OVERSIGHT AND  
GOVERNMENT REFORM  
COMMITTEE ON EDUCATION AND LABOR

**Opening Statement of Rep. Dennis Kucinich**  
**Chairman, Subcommittee on Domestic Policy**  
**Committee on Oversight and Government Reform**  
**Hearing on Hot Fuels**  
**June 8, 2007**

Good morning.

Everyone knows that gasoline prices rise during the summer. Everyone also knows that gas mileage suffers during the summer. But it is a little known industry secret that the amount of gasoline you put in your tank, when you fill up in the summer, is less than the amount in the winter, in terms of weight and energy content.

Scientists call it the "thermal expansion" of gasoline, and the oil industry has known for 100 years that gasoline expands with temperature. As it warms, gasoline expands by volume but not by weight or energy content. Therefore, a gallon of gasoline at 90 degrees weighs less and has less energy content than a gallon at 60 degrees. That is part of the reason why your gas mileage suffers in the summer.

Since the 1920's, the oil industry has taken temperature into account for wholesale transactions, and they use a 60 degree Fahrenheit standard when measuring gasoline at wholesale. In other words, when the sale of gasoline is between two members of the oil industry, they adjust for temperature. No matter what the actual temperature of the gasoline, therefore, they make sure that the same amount of gasoline by weight and energy content is transacted. They standardize wholesale transactions. They remove the variable of temperature from their sales to each other.

But the oil industry does not adjust for temperature in retail sales to consumers. When temperatures of gasoline fall below the industry standard, as they do in many states in the winter, gasoline contracts and the weight of a gallon rises. But when temperatures rise above the industry standard, as they do in all states during the summer, and in many states for most of the year, consumers pay a Hot Fuel Premium when gasoline prices exceed 60 degrees.

Existing technology can correct for temperature at the retail level. It is known as Automatic Temperature Compensation or ATC. One of our witnesses today is the largest manufacturer of ATC in the world.

The oil industry is not known for lacking business sense. In Canada, the oil industry moved quickly to adopt Automated Temperature Compensation at the retail pump. We will be hearing testimony today that Canadian gasoline stations are almost universally equipped with temperature-compensating technology.

But in the U.S., where temperatures are often considerably warmer than the industry standard of 60 degrees, the oil industry has resisted equipping their gas stations with temperature compensating technology. Even after the State of California approved ATC for use and sale in the state, no oil company purchased it.

In fact, they resist even talking about the subject. We invited ExxonMobil and Shell to testify today because they have large commercial presences in both Canada and the United States, and we hoped they could explain why they decided to do one thing Canada and another in the United States. Unfortunately, they refused to appear.

We think we may know why. The Majority Staff of the Subcommittee conducted a study of the hot fuel premium American consumers were likely to pay during the coming summer season. Using actual gasoline temperatures by month and by state, and forecast prices for the summer, they calculated that gasoline retailers will sell over 500 million gallons of gasoline that are, in effect, "created for free" by thermal expansion. And consumers will pay over \$1.5 billion for those heat-expanded gallons, and they will be getting less energy for it.

This is Big Oil's double standard: when they sell gasoline to each other, it is temperature-adjusted so they don't rip each other off. But at retail, they oppose temperature compensation. And though they oppose temperature compensation for retail sales *in the United States*, they universally use temperature compensation at retail *in Canada*.

This summer, Big Oil's double standard will be worth 1.5 billion dollars.

Understandably, then, there is much riding on the National Conference on Weights and Measures, which will, this July, decide whether or not to encourage the use of temperature compensation at the retail level. We will hear today from their Chairman about their process, pressures and prospects.

The bottom line we hope to answer today is not how much consumers may be overpaying for gasoline, but the more basic question of what is the fair method of selling gasoline. We all know that "what's fair is fair." Is it fair when the oil industry compensates for temperature in wholesale transactions? Or is it fair when the industry sells uncompensated gallons at retail?

And what is the fairness in the oil industry treating itself one way and consumers another?

Mr. KUCINICH. And at this point, I want to recognize the gentleman from Illinois, Mr. Davis.

Mr. DAVIS OF ILLINOIS. Thank you very much, Mr. Chairman. And let me thank you for holding today's hearing aimed to better understand how the petroleum industry in the United States addresses hot fuels. Today we find gas prices closing in on \$4 per gallon. People all over the country are struggling to cope with increasing transportation costs and many are running out of options.

While it is important that we as an American community seek new and creative ways to fuel our country, we must still attempt to solve the problem of exorbitant gas and oil prices. In the first 3 months of the year, gasoline imports to the United States fell 12 percent compared to the same period last year. Energy information agency data from May shows that gasoline demand from late April and early May rose 2.3 percent from the same period last year. And regular gasoline nationally averaged \$2.97 a gallon, about \$0.09 lower than the highest price ever.

Higher demand, lower input, and higher prices all lead to the very scary realization that oil prices will continue to rise. In my own district my constituents are dealing with the possibility of increased fare hikes for public transportation partly because of higher fuel costs. Each and every one of us is dealing with higher fuel costs and it is imperative that we strive to find a solution that works.

I am reminded of an incident that happened with my father and I. My father died not too long ago. He was 92-years old. And he grew up in an era when people were very proud. I mean they were as proud as they could possibly be. And he traveled around with me a great deal on the weekends when I was home. I stopped to get some gasoline 1 day and he jumps out of the car. And I said, well, what are you doing? He said, here, let me pay for it. I said "No that is all right. I am a Member of Congress, I can certainly pay for gasoline." And the pump started going \$10, \$20, \$30, \$40. It gets up to about \$50 and he said, "Yeah, I guess you better go ahead and pay for it."

So I want to thank all of the speakers for coming today to help further inform us of the impact that consumers face regarding the effect that thermal expansion of gasoline has on the affected price of gasoline at the retail pump. I thank all of you gentlemen for coming to share with us this morning.

Again, Mr. Chairman, I thank you for holding this hearing and yield back the balance of my time.

Mr. KUCINICH. I thank the gentleman.

[The prepared statement of Hon. Danny K. Davis follows:]

**Opening Statement  
Congressman Danny K. Davis  
Domestic Policy Subcommittee  
Oversight And Government Reform Committee  
“Hot Fuel : Big Oil’s Double Standard for Measuring Gasoline”  
2154 Rayburn HOB—9:00 AM  
Friday, June 8, 2007**

Thank You Chairman Kucinich and Ranking Member Issa for holding today’s hearing aimed at understanding how the petroleum industry in the United States addresses hot fuels.

Today we find gas prices closing in on \$4 per gallon. People all over the country are struggling to cope with increasing transportation costs, and many are running out of options. While it is important that we as an American community seek new and creative ways to fuel our country, we must still attempt to solve the problem of exorbitant gas and oil prices.

- In the first three months of the year, gasoline imports to the U.S. fell 12% compared with the same period last year.<sup>1</sup>
- Energy Information Agency data from May showed that gasoline demand from late April and early May rose 2.3% from the same period last year<sup>2</sup>
- And Regular gasoline, nationally averaged \$2.97 a gallon, about nine cents lower than the highest price ever.<sup>3</sup>

Higher demand, lower input, and higher prices all lead to the very scary realization that oil prices will continue to rise.

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<sup>1</sup> The Wall Street Journal  
ANA CAMPOY  
May 2, 2007; Page D1

<sup>2</sup> ibid

<sup>3</sup> ibid

In my own district, my constituents are dealing with the possibility of increased fare hikes for public transportation, partly because of higher fuel costs. Each and every one of us is dealing with higher fuel costs, and it is imperative that we strive to find a solution that works.

I thank all the speakers for coming to day to help further inform us of the impact consumers face regarding the effect thermal expansion of gasoline has on the effective price of gasoline at the retail pump.

To This end, I welcome today's panelists.

Mr. KUCINICH. The Chair recognizes Mr. Cummings from Maryland.

Mr. CUMMINGS. Mr. Chairman, I thank you very much for holding this hearing. It is vitally important. Most Americans these days are concerned with the extremely high price of gas. The average national price at the pump is currently \$3.13 per gallon, and that may have changed within the hour, I don't know. The average price in Baltimore City, which I represent, is \$3.04. We are a blue collar town, and our people have great difficulty. Many of them are locked into their income and to have to pay the kind of money that they are paying; it literally affects almost every single thing they do.

There is indication that the costs will go up over the summer as demand rises and supplies go down. Just this Wednesday the government announced that refinery utilization fell 1.5 percent to 89.6 percent of capacity.

Mr. Chairman, the American people rely on gas to fuel their cars so that they can get to work and get their children to school and visit loved ones. They simply can't afford the rising costs of filling up their tank. This is why this hearing is so very very important. This little-known practice by the petroleum industry has been robbing American consumers for decades.

Mr. Chairman, I just read the letter from the Partnership of Uniform Marketing Practices [PUMP] Coalition, and as I read this letter I got angrier and angrier because basically what they say is, slow the process down, suspend everything, we have to study this and we are going to study this some more, The National Academy of Sciences is studying it, just hold up.

I have often said that true leadership has to have a sense of urgency, because people are affected every single day by these gas prices. If this practice is in any way causing people to pay more at the pump, if it is causing them to pay a dime, let's say a penny more at the pump than they should be, we need to look at it and we need to address it in an urgent fashion.

Finally, let me say this, Mr. Chairman. Sometimes as I have watched, and having been here for the 11 years I have been here in Congress, one of the things that I have noticed—and I have said this to you before—is that a lot of times industries rely on us to hold a hearing every 2 or 3 years. So therefore it becomes a big issue. It is reported in the press, and so they say wait, wait, wait, and we do wait. By that time there are a new set of players, there's a new chairman, and the issue sort of just drifts away. But in the meantime, families have suffered, people have been literally—money has been literally taken out of their pocketbooks.

And I am just begging you, Mr. Chairman, to stay on top of this issue. I know you will, and maybe we do need to—maybe some of these studies are—we need to look at them? But we need to have some date certain when these studies are complete so that we can bring folks back and say, OK, you asked us to wait for a study; we got a study. And it will be interesting to read what these studies say.

Finally, I guess some of the most compelling—and I hope our witnesses will testify to this—some of the most compelling information came, Mr. Chairman, in your statement when you talked

about how the system is being used in Canada but not used here in the United States. Help me with that. I don't understand how we can go across the border and they can use a system; and you travel a mile and go across the border, and then it is a whole other situation. Something's wrong with this picture and it's up to us to try to, first of all, ferret out what is wrong and then try to address it as best we can.

Thank you Mr. Chairman.

Mr. KUCINICH. I want to thank the gentleman from Maryland.  
[The prepared statement of Hon. Elijah E. Cummings follows:]

**CONGRESSMAN ELIJAH E. CUMMINGS OF MARYLAND  
OPENING STATEMENT**

**“HOT FUEL:  
BIG OIL’S DOUBLE STANDARD FOR MEASURING GASOLINE”**

**DOMESTIC POLICY SUBCOMMITTEE  
OVERSIGHT AND GOVERNMENT REFORM COMMITTEE  
FRIDAY, JUNE 8, 2007**

Mr. Chairman,

Thank you for holding this vitally important hearing to examine how the petroleum industry in the United States addresses the issue of “hot fuels.”

Most Americans these days are concerned with the exorbitantly high price of gas.

The average national price at the pump is currently \$3.13 per gallon, and the average price in Baltimore City, which I represent, is \$3.04 per gallon.

There is indication that costs will go up over the summer as demand rises and supply goes down.

Just this Wednesday, the government announced that refinery utilization fell 1.5 percent, to 89.6 percent of capacity.

Mr. Chairman, the American people rely on gas to fuel their cars so that they can get to work, get their children to school, and visit their loved ones. They simply cannot afford the rising cost of filling up their tank.

That is why the hearing we are holding today to investigate the issue of “hot fuels” is so critically important.

A little known practice by the petroleum industry has been robbing American consumers for decades.

As you know, Mr. Chairman, gasoline expands when temperatures rise, and contracts when temperatures fall.

The energy content of gasoline is directly related to its weight, not its volume. Therefore, the energy content of gasoline does not correspond to its volume—even though it is sold by volume.

Industry has known of this for more than 100 years, and corrects for it by selling gasoline at a temperature compensated standard of 60 degrees for wholesale transactions.

Retail transactions, however, get no such correction.

This is a problem. There is no reason why the American consumer should pay an inflated price that industry itself refuses to pay.

According to an analysis prepared by Subcommittee staff, Americans will pay a hot fuel premium this summer in the range of \$1.5 billion.

In my home state of Maryland, consumers will pay a premium of \$22.6 million this summer.

Mr. Chairman, everyday Americans are already enduring hardship because of the rising and unpredictable price of gas.

I can see no reason why we should allow gas companies to get away with imposing this added financial burden on consumers

when they have long recognized the need to adjust prices in dealings with each other.

The technology to adjust prices at the pump for fluctuating temperatures already exists, and is currently being used in Canada.

I think the time is long past due for the United States to catch up with this standard.

I look forward to the testimonies of today's witnesses and I yield back the remainder of my time.

ELIJAH E. CUMMINGS  
Member of Congress

Mr. KUCINICH. I want the gentleman to know and also to our distinguished colleague who has just joined us, Diane Watson from California, to know that we did invite the oil companies to be here today and that they did not accept our invitation. But we will invite them again. And I would like to recognize the distinguished Congresswoman from California, Diane Watson.

Ms. WATSON. Thank you so much, Mr. Chairman. You are always right on target. In recent years Americans have had to continuously adjust to the steady rise in our Nation's gas prices. With prices reaching \$4 a gallon in many areas of the country, our constituents are facing enormous prices at the pump while Big Oil reaps considerable profits. Every day our constituents have had to make a choice between either putting gas in their cars, food on their table for their families, or buying expensive prescription drugs.

Since 2006, gas prices in my home State of California alone have increased almost 10 percent. The average price of gasoline in the United States escalated to \$3.18 per gallon in May 2007, even when adjusted for inflation. These were some of the highest prices that were ever recorded. As these prices are steadily rising, the organization of the petroleum exporting countries and others continue to sit back and maintain an idle hand.

This committee must take action on this issue, and I appreciate so much the Chairperson calling us together. Hurricane Katrina was the Nation's largest natural disaster ever recorded. Not only did this disaster displace thousands of American citizens, it also left our wetlands destroyed and interfered with the production of our Nation's oil refineries.

Gas prices during this time were topping off at nearly \$2.80 per gallon on the average. And yet, even during a natural disaster, gas prices then were better than they are in today's economic climate.

So, Mr. Chairman, again I want to commend you on this timely hearing that affects every American consumer. It is crucial that we adhere to national interest and not to the Big Oil companies. And I am fully aware that in order to improve the economic dilemma that we are facing, we must first revisit our energy policies and make sure they are adhering to our Nation's needs.

Congress must focus on giving our constituents reliable service at fair market prices. And I look forward to the testimony from our witnesses today and hope that we can work together to find solutions that will lessen our energy dependence and reduce the economic pressures that lay upon so many Americans each day.

And I want to say we are giving subsidies to the oil companies when they are making huge profits. And particularly, I think, it was scandalous that during Katrina they made between \$300 million and \$400 million. They don't need our subsidies. People need relief.

So, thank you. I yield back.

Mr. KUCINICH. I thank the gentlelady.

[The prepared statement of Hon. Diane E. Watson follows:]

**Opening Statement  
Congresswoman Diane E. Watson  
Oversight and Government Reform Committee  
Subcommittee on Domestic Policy  
Hearing: "Hot Fuel: Big Oil's Double Standard for Measuring  
Gasoline"  
June 8, 2007**

**Thank you Mr. Chairman, for holding this most important hearing. In recent years, Americans have had to continuously adjust to the steady rise in our nation's gas prices. With prices reaching \$4 a gallon in many areas of the country, our constituents are facing enormous prices at the pump while big oil companies reap considerable profits.**

**Everyday our constituents have had to make a choice between either; putting gas in their cars, food on the table for their families, or buying expensive prescription drugs. Since 2006, gas prices in my home**

**State of California alone have increased almost 10%.**

**The average price of gasoline in the United States escalated to \$3.18 per gallon in May of 2007, even when adjusted for inflation. These were some the highest prices that were ever recorded. As these prices are steadily rising, the Organization of the Petroleum Exporting Countries (OPEC) and others continue to sit back and maintain an idle hand. This committee must take action on this issue.**

**Hurricane Katrina was the nation's largest natural disaster ever recorded. Not only did this disaster displace thousands of American citizens, it also left our wet lands destroyed and interfered with the production of our nation's oil refineries. Gas prices during this time**

were topping at nearly \$2.80 per gallon on average. And yet, even during a natural disaster, gas prices then were better than they are in today's economic climate.

Mr. Chairman, I want to commend you again on this timely hearing that affects every American consumer. It is crucial that we adhere to national interest and not to that of big oil companies. I am fully aware that in order to improve the economic dilemma that we are facing, we must first revisit our energy policies and make sure they are adhering to our nation's needs. Congress must focus on giving our constituents reliable service at fair market prices. I look forward to the testimony of our witnesses today and

**hope that we can work together to find solutions that will lessen our energy dependence and reduce the economic pressures laid upon so many Americans each day. Thank you and I yield back.**

Mr. KUCINICH. I want to thank all Members of Congress who have given opening statements. And I welcome your participation in the questioning of witnesses.

The subcommittee will now receive testimony from the witnesses before us today. I want to start by welcoming our first panel and to tell members of the committee and the public a little bit about them.

Mr. Richard Suiter. Mr. Suiter is the Weights and Measures Coordinator at the National Institute of Standards and Technology. His responsibilities include training of the national-type evaluation program laboratories in the area of liquid measuring devices, training State and local weights and measures officials, and serving as technical adviser to the National Conference on Weights and Measures Specifications and Tolerances Committee where he conducts research, analysis of technical issues and provides guidance to committee members.

Next, Mr. Michael Cleary. Mr. Cleary is chairman of the National Conference on Weights and Measures, which will be considering a proposal to encourage temperature compensation for retail gasoline sales at its July meeting. He is formerly the director of the California Division of weights and Measures, and is currently special assistant to the chief legal counsel at the California Department of Agriculture.

Mr. Martin Gafinowitz was appointed president of both Gilbarco and the Veeder-Root Co. in 2006, having previously served as the top executive in Gilbarco since 2003 and, before that, a senior executive in the Veeder-Root Co. Mr. Gafinowitz has been an executive with the Danaher Corp., which is the parent company of Gilbarco Veeder-Root since 1991.

Finally, in the first panel, Mr. John Siebert is a project manager, researcher, and communications training specialist who works with the Owner-Operator Independent Drivers Association Foundation producing education safety materials for independent truckers. He also performs survey research concerning driver behavior and attitudes. It is not much of a stretch to say that Mr. Siebert is the discoverer of the issue that brings us here today. While hot fuels were well known to the petroleum industry and weights and measures professionals, Mr. Siebert was one of the first civilians to figure it out.

I want to thank all of the witnesses for appearing. It is the policy of the Committee on Oversight and Government Reform to swear in all witnesses before they testify. I would ask the witnesses to stand and raise your right hands.

[Witnesses sworn.]

Mr. KUCINICH. Let the record reflect that the witnesses, each of them answered in the affirmative. I ask that each of the witnesses now give a brief summary of their testimony and to keep in mind that it would be good to keep this summary under 5 minutes in duration. Your complete written statement will be included in the record.

Mr. Suiter, you will be our first witness, and please proceed.

**STATEMENTS OF RICHARD SUITER, WEIGHTS AND MEASURES COORDINATOR, NATIONAL INSTITUTE OF TECHNOLOGY AND STANDARDS; MICHAEL CLEARY, CHAIRMAN, NATIONAL CONFERENCE ON WEIGHTS AND MEASURES; MARTIN GAFINOWITZ, CEO, GILBARCO VEEDER-ROOT; AND JOHN SEIBERT, OWNER-OPERATOR INDEPENDENT TRUCK DRIVERS ASSOCIATION**

**STATEMENT OF RICHARD SUITER**

Mr. SUITER. Chairman Kucinich and members of the subcommittee, thank you for the opportunity to testify. I look forward to discussing what the National Institute of Standards and Technology [NIST], part of the Department of Commerce does to establish uniformity in weights and measures requirements and practices for the U.S. economy and how thermal expansion of gasoline relates to compensation issues in the marketplace.

NIST has no weights and measures regulatory authority. Instead, NIST fosters efficient and equitable transactions in the domestic and global marketplace through sound science to enable sound policies. In this case NIST provides technical guidance to the National Conference of Weights and Measures [NCWM]. The NCWM, which consists of weights and measures officials, device manufacturers, users and consumers, serves as a forum for the development of weights and measures requirements and practices in the United States.

Through its association with the NCWM, NIST provides three types of technical weights and measures information to the States, including requirements for equipment in NIST handbook 44, model regulations in NIST handbook 130, and test procedures in NIST handbook 133. NIST handbooks 44 and 130 take on the effect of law when adopted in State law, rule, or regulation.

NIST provides technical guidance on the requirements in handbook 44 and 130. Each State has the final decision on how the requirements are implemented and enforced. For over 30 years, temperature compensation has been discussed. NIST has been in the middle of the discussion, providing technical advice and information.

Temperature compensation, as it relates to the sale of petroleum, is an adjustment made to assure that each gallon of fuel sold contains the same energy content. To put it simply, energy per unit of fuel is measured at 60 degrees Fahrenheit. When the external temperature is warmer, it causes the fuel to expand. With automatic temperature compensation, the measuring device on an application adjusts the volume indicated for any delivery to a referenced temperature. For petroleum products, the referenced temperature is 60 degrees Fahrenheit, which was established in the 1920's by the then-National Bureau of Standards and the American Petroleum Institute.

Some States specify that a gallon of gasoline is defined as 231 cubic inches at 60 degrees Fahrenheit. The State of Hawaii, which has a tropical climate, has adopted an alternative referenced temperature of 80 degrees Fahrenheit for petroleum. In some States, compensating for temperature of refined petroleum products takes place at the wholesale level but not at the retail gasoline or diesel

pump or for delivery of home heating fuel. Some States prohibit temperature compensation at retail, some States prohibit temperature compensation anywhere in the petroleum distribution chain.

Most States require temperature compensation for certain products such as liquefied petroleum gas sales or propane for home heating. The NCWM and its standards committees have paid particular attention to temperature compensation issues for the past 7 years.

In 2004, NIST, as technical adviser to the NCWM, developed a presentation on the technical aspects of temperature compensation and its impact on the measurement and testing of petroleum products. The presentation included an explanation of temperature compensation and a history of temperature compensation issues: examples of automatic temperature compensation equipment; effects of temperature compensation on product and test equipment; current and proposed requirements for temperature compensation; test procedures and equipment for testing devices with automatic temperature compensation; changes in the handling and storage of refined petroleum products in the marketplace, such as single- versus double walled storage tanks and electronic versus mechanical meters; a review of the application of temperature compensation to petroleum volume data, showing average fuel storage tank temperatures in the United States and the possible effect on petroleum measurement.

The data on storage tank temperatures, collected by a manufacturer of tank monitoring equipment over a 2-year period, indicated that the average temperature of product in below-ground storage tanks across the United States was 64.7 degrees.

In conclusion, NIST serves only as a technical adviser and has no voting role in the process of the NCWM, the organization that provides a framework to individual jurisdictions. NIST analysis, however, shows that temperature compensation can be used to ensure accurate measurement of energy content in fuels being sold.

We will continue to work with State and local officials, industry, and the public to ensure informed decisionmaking and to enhance the reliability of measurements in the marketplace.

Thank you for the opportunity to testify and I would be happy to answer any questions that the committee may have.

Mr. KUCINICH. I thank the gentleman.

[The prepared statement of Mr. Suiter follows:]

24

Testimony of

Richard Suiter  
Weights and Measures Program Coordinator

National Institute of Standards and Technology  
Technology Administration  
U.S. Department of Commerce

Before the

House of Representatives  
Committee on Oversight and Government Reform  
Subcommittee on Domestic Policy

“Hot Fuels – The Impact on Commercial Transactions of the Thermal  
Expansion of Gasoline”

June 8, 2007

**Introduction**

Chairman Kucinich, Ranking Member Issa, and Members of the Subcommittee, thank you for the opportunity to testify today on "Hot Fuels– The Impact on Commercial Transactions of the Thermal Expansion of Gasoline." I look forward to discussing the work the National Institute of Standards and Technology (NIST) does to establish uniformity in weights and measures requirements and practices for the U.S. economy -- and how the thermal expansion of gasoline relates to compensation issues in the market place.

**National Conference on Weights and Measures**

NIST has no weights and measures regulatory authority. Instead, NIST fosters efficient and equitable transactions in the domestic and global marketplace through sound science to enable sound policies. In this case, NIST provides technical guidance to the National Conference on Weights and Measures (NCWM). Established in 1905, the NCWM serves as a forum for the development of weights and measures requirements and practices in the United States. Membership in the NCWM is open to all interested parties including weights and measures regulatory officials, device manufacturers and users, and consumers. Any individual may provide testimony on an agenda item, but only regulatory officials are allowed to vote on adoption of an agenda item.

NIST provides three types of technical weights and measures information to the states:

1. Requirements for equipment (NIST Handbook 44)
2. Model regulations (NIST Handbook 130)
3. Test procedures (NIST Handbook 133)

Handbooks 44 and 130 take on the effect of law when they are adopted by reference in state law, rule, or regulation. Federal agencies such as the U.S. Department of Agriculture (USDA) and the Food and Drug Administration (FDA) also adopted NIST Handbooks 44 and 133. NIST provides technical guidance on the requirements in Handbook 44 and 130; however, each state has the final decision on how the requirements are implemented and enforced.

**Temperature Compensation**

For over 30 years, temperature compensation has been discussed and debated in the weights and measures community. NIST has been in the middle of the discussion, providing technical advice and information as evidenced by the 1979 publication of our report: "Symposium on Temperature Compensated Volumes in the Sale of Petroleum Products."

So what is temperature compensation? Temperature compensation as it relates to the sale of petroleum is an adjustment made that assures that each gallon of fuel sold contains the same energy content. To put it simply, energy per unit of fuel is measured at 60 degrees Fahrenheit and when the external temperature is warmer it causes the fuel to expand. A

warm gallon of gas does not provide as much energy as a cold one. That is because when that cold gallon of gas is warmed, its volume expands. To compensate for this phenomenon, weights and measures officials may rely on formulas or mechanical means to compensate for temperature differences. States may choose their preferred implementation. With automatic temperature compensation, the measuring device on an application adjusts the volume indicated for any delivery to a reference temperature. For petroleum products, the reference temperature is 60 degrees Fahrenheit – which was established in the 1920s by the then National Bureau of Standards and American Petroleum Institute. Some states specify that a gallon of gasoline is defined as 231 cubic inches at 60 degrees. The state of Hawaii has adopted an alternate reference temperature of 80 degrees Fahrenheit for petroleum. Because of Hawaii's tropical climate, the temperature of gasoline will not vary by more than a few degrees. The rest of the states have more variable climates, so the 60 degree reference makes more sense for them.

In some states, compensating for the temperature of refined petroleum products being sold has taken place at the wholesale level -- but not at the retail gas pump (diesel included) or for deliveries of home heating fuel. Some states prohibit temperature compensation at retail and some states prohibit temperature compensation anywhere in the petroleum distribution chain. Most states require temperature compensation for certain products, such as for liquefied petroleum gas (LPG) sales, or propane for home heating, but not necessarily for other products.

In 2000 a delegate from the State of Oregon, through the Western Weights and Measures Association, submitted an item to the NCWM Specifications and Tolerances Committee to recognize temperature compensation in NIST Handbook 44 for vehicle-tank meter applications. These include meters installed on home heating fuel delivery trucks. The Specifications and Tolerances committee is made up of weights and measures officials with some expertise in the design and operation of commercial devices. As mentioned earlier NIST/WMD serves as technical advisor to the Specifications and Tolerances committee.

After two years of committee development, the issue became a voting item on the Committee's agenda in 2002. At the NCWM Annual Meeting, the conference could not reach an agreement during the voting process. Because the NCWM is a consensus organization, the item was returned to the Specifications and Tolerances Committee for further development. The same result occurred at the conference the following two years. The item has remained as an information item on the Committee's Agenda since that time. In 2004, an item was submitted to the NCWM Laws and Regulations Committee proposing a change to the Uniform Regulation for the Method of Sale of Commodities to require temperature compensation in certain applications such as heating oil tanker trucks, loading rack meters at wholesale gasoline, diesel or even ethanol tank farms, and high volume (truck stop) dispensers. The proposal was modified in January 2007 to recognize voluntary temperature compensation at all levels and is currently a voting item on the committee agenda that is expected to be taken up in July 2007. If adopted this would permit temperature compensation adjustment at additional levels of the distribution chain, but not mandate it.

As part of NIST's role as technical advisor to the NCWM Specifications and Tolerances Committee and in an effort to aid weights and measures officials in making a technically sound decision on the issue, in 2004 NIST developed a presentation on technical aspects of the impact of temperature compensation on the measurement and testing of petroleum products. The presentation included:

- An explanation of temperature compensation and a history of temperature compensation issues addressed by NCWM
- A summary of changes in handling and storage of refined petroleum product in the marketplace, such as single versus double walled tanks and electronic versus mechanical meters.
- A review of the application of temperature compensation to petroleum volume data showing average fuel storage tank temperatures in the U.S. and possible effect on petroleum measurement. The data on storage tank temperatures, collected by a manufacturer of tank monitoring equipment, over a two year period indicated that the average temperature of product in below ground tanks across the U.S. was 64.7 degrees Fahrenheit.
- Examples of automatic temperature compensation equipment
- Effects of temperature on product and test equipment
- Current and proposed requirements for temperature compensation
- Test procedures and equipment for testing devices with automatic temperature compensation

The presentation was given at various weights and measures meetings in 2004 and 2005. NIST recommended that this information be considered during future discussions of implementation of temperature compensation at various levels in the petroleum distribution chain.

### **Conclusion**

When state or local weights and measures regulators have mandated compensating for temperature in the sale of petroleum products, it ensures that the energy content of a gallon of gas is the same regardless of the supplier.

NIST serves only as a technical advisor and has no voting role in the process of the NCWM, the organization that provides a framework to individual jurisdictions. NIST analysis, however, shows that temperature compensation can be used to ensure accurate measures of energy content in fuels being sold. We will continue to work with state and local officials, industry, and the public to ensure informed decision making and to enhance the reliability of measurements in the market place.

Thank you for the opportunity to testify before you today. I would be happy to answer any questions the Subcommittee might have.

Mr. KUCINICH. Mr. Cleary.

**STATEMENT OF MICHAEL CLEARY**

Mr. CLEARY. Thank you very much, Chairman Kucinich and members of the subcommittee. Thank you for the opportunity to testify today on hot fuels and the impact on the transactions of thermal expansion of gasoline. I look forward to discussing the role the National Conference on Weights and Measures place to establish uniformity in weights and measure requirements and what we are currently debating in our consensus organization.

Some background on the National Conference on Weights and Measures. On January 16, 1905, the National Bureau of Standards, today known as the National Institute of Standards and Technology, invited the States to participate in the development of uniform weights and measures for the United States. The relationship grew into what was known as the National Conference on Weights and Measures.

The United States is one of the only countries in the world without a Federal weights and measures regulatory agency. In the United States each jurisdiction funds its own weights and measures program based on budgetary priorities in that particular State. The Conference is fully funded by the membership. NIST today provides the Conference with technical advisers to assist in the development of standards.

As a standards development body committed to the consensus-building process, the Conference has created a model process that generates high praise from both regulators and business representatives alike. The National Conference serves as a forum for the development of weights and measures requirements and practices in the United States.

Membership in the National Conference is open to all interested parties, including weights and measures regulatory officials, device manufacturers, users and consumers. An environment of inclusion gives voices to all in every step of the way. In this way, the National Conference has addressed some of the most important economic issues of our time.

The end result, ongoing contributions from industry experts, assist in producing final standards that reflect the latest technical innovations. It is the National Conference members who provide the input for the four national conference committees. And these committees provide for the standards development for each of the specific areas. They also provide counsel on weights and measures issues as they emerge in the marketplace by drawing on the expertise of our diverse membership of public and private sector members. Most issues come to the National Conference committees through one of the regional weights and measures associations: the central, the northeastern, the southern and the western weights and measures association. But the Conference committee can accept important issues from any source.

At the National Conference annual meeting, standing committees review all comments received since the intermeeting. They hold open hearings to discuss further, make revisions to the recommendations as needed, and produce the final report. Final re-

ports are then presented in open forum to the representatives and delegates for a vote.

As a standards development body committed to consensus-building, the National Conference has created a model process that has generated high praise from both regulators and business representatives alike. Our board of directors oversees the activities of the four standing committees and the standing committees of the board of directors; specifications and tolerance committee; laws and regulation committee; and the professional development committee.

I would like to talk about temperature compensation at this time. For many years the issue of temperature compensation as it relates to petroleum products has been discussed and debated in the weights and measures community and at the National Conference. The issue of how to standardize the sale goes back in history to the early 1900's when Standard Oil Trust funded the American Petroleum Institute, working with then the National Bureau of Standards, to set the size standard gallon of petroleum product. This study was conducted at the time for the purpose of inventory control for the petroleum industry. The study was conducted between 1912 and 1917. And in conjunction with an agreement with Great Britain, the standard was set at 231 cubic inches at an ambient temperature of 60 degrees.

From that time on, temperature compensation has been used by the petroleum industry to adjust the delivery of petroleum products at the wholesale level. The question of whether this adjustment should or could be made at the retail level has been debated at the National Conference on Weights and Measures for years. In 1974, the 59th Conference had a detailed proposal to allow permissive temperature compensation at the retail level proposed by the State of Hawaii. A very heated discussion took place, remarkably similar to the debate currently facing the Conference. The primary difference in the arguments pro and con today is the availability of equipment that would make it possible. The equipment exists today but would add costs to the petroleum industry.

In 1974 the motion was defeated, but the issue continues to be discussed, and over the last 7 years it evolved into what the Conference is debating today. What the Conference is debating today is a proposal that would be a model law for the States to consider adopting that would allow permissive temperature compensation at the retail level. The proposal would detail if temperature compensation is used, how it would be used in order to prevent the facilitation of fraud. This proposal is currently a voting item scheduled to be further debated and could be voted in July of this year at our annual meeting in Utah.

As chairman of the Conference, I am not here today to take a position one way or another on the issue as the Conference has not as yet voted on the current proposal before the membership. I have, however, called for establishing a steering committee working within the Conference to continue the technical issues surrounding this issue, as I believe work will be needed to be done regardless of how the vote goes in July.

For your information, I have attached a copy of the temperature compensation proposal before the Conference, including the comments that have been made relevant to it, for your review.

I thank you for the opportunity to testify before you today. I would be happy to answer any questions the subcommittee might have about our Conference or the general debate on this particular issue. Thank you, sir.

Mr. KUCINICH. I thank the gentleman.

[The prepared statement of Mr. Clearly follows:]

31

Testimony of

Michael Cleary  
Chairman  
National Conference on Weights and Measures

Before the

House of Representatives  
Committee on Oversight and Government Reform  
Subcommittee on Domestic Policy

“Hot Fuels – The Impact on Commercial Transactions of the Thermal  
Expansion of Gasoline”

June 8, 2007

**Introduction**

Chairman Kucinich, Ranking Member Issa, and Members of the Subcommittee, thank you for the opportunity to testify today on "Hot Fuels- The Impact on Commercial Transactions of the Thermal Expansion of Gasoline." I look forward to discussing the role the National Conference on Weights and Measures plays to establish uniformity in weights and measures requirements and what we are currently debating in our consensus organization.

**National Conference on Weights and Measures**

On January 16 and 17, 1905 the National Bureau of Standards, today known as the National Institute of Standards and Technology, invited the states to participate in the development of uniform weights and measures for the United States. This relationship grew into what was known as the National Conference on Weights and Measures.

The United States is one of the only countries in the world without a federal weights and measures regulatory agency. In the United States each jurisdiction funds its weights and measures programs based on budgetary priorities in that particular state. The Conference is fully funded by its membership. NIST today provides the Conference with technical advisors to assist in the development of standards.

As a standards development body committed to consensus building, NCWM has created a model process that generates high praise from both regulators and business representatives alike. The NCWM serves as a forum for the development of weights and measures requirements and practices in the United States.

Membership in the NCWM is open to all interested parties including weights and measures regulatory officials, device manufacturers and users, and consumers. An environment of inclusion gives a "voice to all" every step of the way — from initial input to follow-up comment on draft proposals — to ensure that the standards-setting process, is streamlined and effective.

In this way, the NCWM has addressed some of the most important economic issues of our time. Recent national initiatives have analyzed and improved the net contents labeling of milk, the accuracy of electronic store scanners and the performance of retail gas pumps. And today, as the growth of E-commerce demands faster, better services to customers, current NCWM studies are addressing advanced measurement technologies for just-in-time delivery and virtual inventory.

The end result? On going contributions from industry experts assist in producing final standards that reflect the latest technology innovations.

It is the NCWM members who provide the input for the four NCWM committees. And these committees provide for standards development in each of their specific areas. They

also provide counsel on weights and measures issues as they emerge in the marketplace by drawing on the expertise of our diverse membership of public and private sector members.

Most issues come to the NCWM committees through one of the regional weights and measures associations, The Central, Northeastern, Southern, and Western Weights and Measures Associations, but an NCWM committee can accept important issues from any source. Placing an issue on a committee's agenda is as simple as submitting NCWM Form 15, Proposal to Standing Committee to the regional association of choice.

The regional associations provide a grass roots forum to fully develop the issues for nationwide discussion. The outcome is a win-win proposition: the standing committee enjoys the benefit of a nationwide consensus opinion, while all parties — weights and measures officials, industry representatives, consumer interests, and technical experts — have a say in the end product.

Attending regional meetings and the NCWM Interim and Annual Meetings provide members opportunity to speak in an open forum and be heard, but attending these meetings is only one form of participation in the NCWM consensus process. Committees also accept written comments throughout the year regarding any items on their respective agendas.

At the NCWM Annual Meeting, standing committees review all comments received since the Interim Meeting, hold open hearings to discuss issues further, make revisions to their recommendations as needed, and produce final reports. Final reports are then presented in open forum to representatives and delegates for a vote.

As a standards development body committed to consensus building, NCWM has created a model process that has generated high praise from both regulators and business representatives alike. It takes strong leadership to direct such an effort and begins with the NCWM Board of Directors.

The Board of Directors oversees the activities of four standing committees, each addressing a specialized area of the NCWM standards program.

The four standing committees of the NCWM provide for standards development in each of their specific areas. They also provide counsel on weights and measures issues as they emerge in the marketplace by drawing on the expertise of our diverse membership of public and private sector members.

#### NCWM Organization Chart

Board of Directors  
 Specifications and Tolerances (S&T) Committee  
 Laws and Regulations (L&R) Committee  
 Professional Development (PD) Committee

National Type Evaluation Program (NTEP) Committee  
Associate Membership Committee

Newly adopted standards are published annually in the various Handbooks listed below and become available for adoption and enforcement by your state or local weights and measures authority the following January 1st.

NIST Handbook 44 - Specifications and Tolerances for Weighing and Measuring Devices,

NIST Handbook 130 - Uniform Laws and Regulations in the area of legal metrology and engine fuel quality, and

NIST Handbook 133 - Checking the Net Contents of Packaged Goods

**Temperature Compensation**

For many years, the issue of temperature compensation as it relates to petroleum products has been discussed and debated in the weights and measures community and at the National Conference on Weights and Measures.

The issue of how to standardize the sale goes back in history to the early 1900's when Standard Oil Trust funded the American Petroleum Institute working with the then National Bureau of Standards to set the size standard gallon of petroleum product. This study was conducted at the time for the purpose of inventory control for the petroleum industry. The study was conducted between 1912 and 1917 and in conjunction with an agreement with Great Britain the standard was set at 231 Cubic inches at an ambient temperature of 60 degrees.

From that time on Temperature Compensation has been used by the petroleum industry to adjust the delivery of petroleum products at the wholesale level. The question of whether this adjustment should or could be made at the retail level has been debated at the National Conference on Weights and Measures for years.

In 1974 The 59<sup>th</sup> Conference had a detailed proposal to allow permissive temperature compensation at the retail level proposed by the State of Hawaii a very heated discussion took place, remarkably similar to the debate currently facing the conference. The primary difference in the arguments pro and con today is the availability of equipment that would make it possible. The equipment exists today but would add cost to the petroleum industry. In 1974 the motion was defeated but the issue continues to be discussed and over the last 7 years has evolved into what the Conference is debating today.

What the conference is debating is a proposal that would be a model law for the States to consider adopting that would allow permissive Temperature Compensation at the retail level. The proposal would detail if Automatic Temperature Compensation is used how it would be used in order to prevent the facilitation of fraud. This proposal is currently a

voting item scheduled to be further debated and could be voted in July of this year at our Annual meeting in Utah.

As Chairman of the Conference I am not here today to take a position one way or another on the issue, as the Conference has not as yet voted on the current proposal before the membership. I have, however, called for and established a steering committee within the Conference to continue the technical issues surrounding this issue, as I believe this work will need to be done regardless of the vote in July.

For your information I have attached a copy of the Temperature Compensation proposal before the Conference including the comments that have been made relative to it for your review.

#### **Conclusion**

I thank you for the opportunity to testify before you today. I would be happy to answer any questions the Subcommittee might have about the Conference or the general debate about this issue.

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Details of all Items  
(In order by Reference Key Number)

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**232 METHOD OF SALE REGULATION****232-1 Temperature Compensation for Petroleum Products**

See page 7 for the latest discussions and alternative recommendations on temperature compensation which came out of the 2006 meetings of several of the regional weights and measures associations.

Source: Southern Weights and Measures Association (SWMA). (See Item 232-4 in the Report of the 90<sup>th</sup> NCWM Annual Meeting in 2005.)

Recommendation: Amend the Method of Sale Regulation in Handbook 130 by adding the following:

**2.XX. Refined Petroleum Products**

**2.XX.A. -- Where not in conflict with other statutes or regulations, refined petroleum products delivered through: (1) vehicle tank meters, (2) stationary meters with flow rates of 115 L (30 gal) or more per minute, and (3) loading rack meters may be sold with the volume adjusted to compensate for temperature. When petroleum products are sold temperature compensated:**

- (a) All sales shall be in terms of liters or U.S. gallons at 15 °C (60 °F);**
- (b) The temperature compensation shall be accomplished through automatic means;**
- (c) The primary indicating elements, recording elements, and all recorded representations (receipts, invoices, bills of lading, etc.) shall be clearly and conspicuously marked to show that the volume delivered has been adjusted to the volume at 15 °C (60 °F);**
- (d) For vehicle tank meters, all sales by the same person or company for the same metering application within the same state shall be sold temperature compensated in 12-month increments. For example, a company may not choose to operate some vehicle tank meters with automatic temperature compensators and others without. Nor may a company choose to engage the automatic temperature compensator on a device only during certain times of the year.**
- (e) For stationary meters with flow rates of 115 L (30 gal) or more per minute, all sales by the same person or company for the same metering application at the same location shall be sold temperature compensated in 12-month increments. For example, a company may not choose to operate some stationary meters with automatic temperature compensators and others without. Nor may a company choose to engage the automatic temperature compensator on a device only during certain times of the year.**
- (f) For loading rack meters, except for contract sales all sales by the same person or company for the same metering application at the same location shall be sold temperature compensated in 12-month increments. Contract sales may have the method of sale specified within the terms of the contract, but whichever method of sale is selected shall be implemented in 12-month increments. For example, a company may not choose to engage the automatic temperature compensator on a device only during certain times of the year.**

**2.XX.B. -- Where not in conflict with other statutes or regulations, petroleum products delivered through meters other than those specified in Section 2.XX.A, shall be sold without the volume adjusted to compensate for temperature.**

L&R Committee 2007 Interim Agenda

*Note 1: As defined in the Handbook 130 Engine Fuels, Petroleum Products, and Automotive Lubricants Inspection Law, refined petroleum products are products obtained from distilling and processing of petroleum (crude oil), unfinished oils, recycled oils, natural gas liquids, refinery blend stocks, and other miscellaneous hydrocarbon compounds.*

*Note 2: Paragraphs 2.XX.A.(d) and (e) shall only be effective as long as temperature-compensated sales remain permissive in at least some relevant applications. If temperature compensation becomes mandatory for all relevant applications, then these paragraphs shall be removed.*

**Background:** Selling fuel adjusted to the volume at 15 °C (60 °F) throughout the distribution system is the most equitable way fuel can be sold without the buyer or seller gaining a competitive advantage.

This item is considered in conjunction with a temperature compensation item that is before the Specifications and Tolerances (S&T) Committee, Item 331-1, although the S&T Committee's item is limited to vehicle-tank meters.

A similar proposal was made by the Northeast Weights and Measures Association (NEWMA) in 2000. NEWMA noted that Pennsylvania, New Hampshire, Maine, and Canada permit temperature compensation in sales of products like home heating fuel and retail gasoline. In 2001 the Committee withdrew this item after hearing testimony from several jurisdictions that opposed it.

The Committee has heard numerous comments in support of, and a few comments in opposition to, temperature-compensated sales of petroleum fuels. While most comments generally supported temperature-compensated sales, the Committee received comments from a couple of jurisdictions that were concerned about the additional inspection time and resources that will be needed to test devices equipped with temperature compensators.

Among the comments received in support of temperature-compensated sales, there was a fair amount of disagreement about how this should be accomplished. Most of the discussion fell into one of three broad categories: (1) If temperature-compensated sales are allowed, what should they look like? (2) In which metering applications should temperature-compensated sales be allowed? (3) Should temperature-compensated sales be permissive or mandatory?

*What should temperature-compensated sales look like?*

The Committee heard from the Western Weights and Measures Association (WWMA), the Central Weights and Measures Association (CWMA), and the Southern Weights and Measures Association (SWMA) that temperature-compensated sales needed to have certain parameters established so that all sales conducted in this manner are comparable. All three regions agreed that (1) temperature-compensated sales should be adjusted to the volume at 15 °C (60 °F), (2) temperature compensation should be accomplished through automatic means, (3) indicating and recording elements and all written representations should indicate that the volume delivered is temperature compensated, and (4) all sales by the same person/company for the same metering application within the same jurisdiction must be sold either compensated or uncompensated for full calendar years.

The Committee adopted these criteria into its recommendation.

*In which metering applications should temperature-compensated sales be allowed?*

The Committee heard from WWMA and SWMA that temperature-compensated sales should be allowed in all metering applications through meters with flow rates of 20 gal or more per minute. The flow rate of 20 gal per minute was selected because it was believed this would effectively allow temperature-compensated sales in all applications except for standard retail motor-fuel devices. Both regions thought that temperature-compensated sales should be prohibited through standard retail motor-fuel devices.

The Committee heard from CWMA that temperature-compensated sales should be limited to sales through vehicle tank meters, loading-rack meters, and retail motor-fuel devices used exclusively for fueling trucks in sales of 100 gal or more. CWMA was concerned that allowing temperature-compensated sales in all metering applications except standard retail motor-fuel devices was overly broad. CWMA was more comfortable with listing specific applications where temperature-compensated sales would be allowed and wanted it made clear that temperature-compensated sales would be prohibited through standard retail motor-fuel devices. CWMA submitted the following language for the Committee's consideration:

**2.X.X. – Wholesale refined petroleum product sales, sales of diesel fuel for truck refueling, and bulk sales of refined petroleum products of 100 gal or more may be dispensed through a meter that automatically compensates for the temperature to represent a gallon as 231 in<sup>3</sup> at 60 °F.**

**2.XX.1. – Implementation: Wholesalers and retailers that implement temperature compensation for wholesale sales, devices used exclusively for diesel fuel for truck refueling, or bulk sales of refined petroleum products of 100 gal or more shall implement this practice for all meters or dispensers at such locations.**

**2.XX.2. – Temperature-compensation disclosure: All meters or dispensers which employ temperature compensation shall be labeled on the meter or dispenser, and the printed representation must state that the volume represented has been corrected to 60 °F.**

**Note 1. Refined petroleum products are derived from crude oils through processes such as catalytic cracking and fractional distillation.**

**Note 2. Diesel fuel means a refined middle distillate suitable for use as a fuel in a compression-ignition engine (diesel) internal combustion engine.**

The Committee's recommendation constitutes a compromise. The Committee agreed with CWMA that the most prudent approach to temperature-compensated sales was to limit them to specific metering applications where almost everyone would be comfortable with its use. The Committee preferred the approach of WWMA and SWMA when defining retail motor-fuel devices used exclusively for fueling trucks and opted to define these devices based upon the meter flow rate rather than the delivery quantity. The Committee selected a flow rate of 115 L (30 gal) to be consistent with the thresholds in the LMD code in Handbook 44, Section S.4.4, and Table T.2, of the LMD code that specify the minimum flow rate of large-capacity metering devices as 115 L (30 gal) per minute. Finally, the Committee included language in the recommendation that makes it clear that, where not expressly permitted, temperature-compensated sales are prohibited.

**Should temperature-compensated sales be permissive or mandatory?**

The Committee heard from WWMA and SWMA that temperature-compensated sales should be implemented on a permissive basis, but that future mandatory dates should be established. Those who support a mandatory requirement believe that in the long run a permissive requirement will cause confusion within the marketplace and hinder the consumer's ability to make value comparisons between companies that sell products compensated and those that don't. Particularly with regard to home heating fuel sales, jurisdictions are concerned customers will not be told if the price per gallon they are being quoted prior to the sale is compensated or uncompensated (even if it is disclosed on the invoice they receive after the delivery). In addition, even if consumers are informed that a product quote is for a temperature-compensated delivery, consumers won't know what it means and won't be able to make a meaningful comparison between quotes for compensated and uncompensated products. WWMA and SWMA recommended that future mandatory dates be established based on a reasonable timetable for each type of metering application that takes into consideration equipment replacement costs and existing device life-expectancy. NIST suggested, as an alternative, that mandatory dates for each type of metering application be established initially for new installations and that later dates be established for existing devices.

The Committee heard from CWMA that temperature-compensated sales should be implemented on a purely permissive basis. CWMA opposes the inclusion of any future mandatory dates at this time. CWMA believes that temperature-compensated sales should be market-driven and that suppliers will make sales on a temperature-compensated basis when consumers demand it and should not be required to do so before then. Many jurisdictions believe that the imposition of a mandatory requirement is too burdensome on the industry, requiring upgrades and possibly the replacement of many meters without adequate justification.

The Committee agreed that the inclusion of mandatory dates during the initial implementation of this item was too controversial and would elicit too much opposition. The Committee felt it was important to get some form of regulation regarding temperature-compensated sales of petroleum adopted into Handbook 130 and thought that as many barriers as possible should be removed in order to achieve this goal. Although the Committee's recommendation reflects a purely

## L&amp;R Committee 2007 Interim Agenda

permissive requirement for temperature-compensated sales, the Committee may be willing to consider establishing future mandatory dates if a need is demonstrated after this permissive regulation is implemented.

Finally, the Committee heard requests from the American Petroleum Institute (API) to: (1) recognize and permit different methods of sale at loading rack meters when such sales are under contract, and (2) prohibit temperature-compensated sales through stationary meters with flow rates of 115 L (30 gal) or more per minute. The Committee agreed with API's first request regarding contract sales, and included language in the loading rack meter paragraph (2.XX.A (f)) to permit the method of sale to be determined by contract when an active and valid contract is present. The Committee carefully considered and then decided against API's request to prohibit temperature-compensated sales through high-flow stationary meters. The Committee rejected this request because the idea behind implementing a permissive temperature compensation standard is to allow the marketplace to drive the implementation of such a standard. The Committee has heard strong support for temperature-compensated sales through high-flow stationary meters from the market segment that uses these meters. The Committee believes that with the support of a well educated and well defined end user, it is inconsistent with the idea of marketplace-driven implementation for the Committee to create a barrier to temperature-compensated sales in this limited, well-defined application. The Committee notes that since this is a permissive requirement, the decision of whether or not to sell petroleum products with the volume adjusted to compensate for temperature remains with the seller, and that the seller will not incur any additional expense or be required to upgrade their equipment unless they make the decision to change their current method of sale practices.

At its 2006 Annual Meeting the WWMA L&R Committee heard the following testimony from the American Petroleum Institute (API) regarding recent media publications concerning the lack of temperature compensation at retail fuel stations:

- API is opposed to temperature compensation at the retail level.
- The physics of petroleum products have not changed and should not be dealt with on a basis of energy content, as seems to be the issue in considering temperature compensation. A gallon sale should result in an actual gallon delivery, which is what consumers receive today. An example was discussed regarding the fact that ethanol does not provide energy equivalent to that of gasoline, raising the question (although not recommended) of whether further compensations should be made for that issue;
- Public concerns regarding volumes of fuel delivered in retail sales are misdirected at major oil companies which operate only approximately 10 % of all stations.
- API has taken no position on temperature compensation regarding Vehicle-Tank Meters

A meter user association representative testified that approximately 15 % of retail dispensers currently in use are mechanical and are unable to be retrofitted for temperature compensation. He stated that nearly all retail dispensers would need retrofitting and many older electronic dispensers could not be modified to perform automatic temperature compensation and cannot be interfaced with software to perform the adjustments. He suggested an estimate of \$4 billion to convert all retail fuel dispensers for ATC.

A meter manufacturer testified that a decision on this issue is needed, indicating that parameters must be defined and a decision to allow or disallow temperature compensation in retail fuel transactions is necessary for the industry to determine its directions on the matter. The manufacturer stated that his company is receiving increased calls from customers requesting the technology and mentioned two major manufacturers who currently have developed ATC devices. He recommended that the Committee pursue permissive, not mandatory, language in developing the model regulation. The manufacturer noted that previous attempts to submit ATC devices for type-approval have been rejected and, therefore, Certificates of Conformance cannot be obtained. In response to other testimony suggesting that implementation of temperature compensators would merely introduce another opportunity for consumers to allege that tampering with the compensators affects delivery volume, the manufacturer stated no knowledge of any such allegations from the public regarding any existing installations.

The meter manufacturer also commented that retail ATC technology is not in the field in the United States. He stated that conversions/retrofitting would be very difficult to do in the field given the numerous fluid plumbing connections and installation of electronic components that would be necessary. He stated that most existing fuel dispensing equipment has a lifespan of 10 to 12 years.

A state director requested information regarding states that currently prohibit temperature compensation. California responded that for transactions involving 5000 gal or more the purchaser may request temperature compensation. Idaho

responded that for transactions involving 8000 gal or more the purchaser has an option to buy, on a yearly basis, temperature-compensated product and that all terminal transactions are temperature-compensated. Arizona responded that any transactions involving more than 5000 gal must be compensated for temperature. A state director further commented that he had concerns regarding any "permissive" versus "mandatory" use of ATC. He believes the consumer is more concerned with the "perception" of fraud occurring through failure to compensate for temperature variations rather than the technical issues surrounding temperature compensation.

Another state director commented that many factors must be considered in addressing temperature compensation, including realization that field tests to verify functionality and accuracy will require greatly increased inspection time and significant additional costs to regulatory agencies. Additionally, factors such as the API table of properties of the respective petroleum products and expansion factors for provers of varying composition (materials) must be considered when testing ATC dispensers. Also, he stated that determinations of temperature changes between product at the meter thermometer well and that delivered into the vessel (prover) must be taken into account.

A county weights and measures director stated support for the item, stating that temperature compensation should be permitted only on a voluntary or permissive basis to allow for the marketplace to drive its implementation.

Two state directors testified in support of the item, as written. One stated that temperature-compensated transactions are the most accurate means to transact business and it is "our responsibility" to ensure accuracy.

WWMA supports the concept that sales based upon temperature compensation provide the most accurate and equitable transaction for both buyers and sellers. The Committee received testimony from members of industry and weights and measures officials in agreement with this opinion. While WWMA recommends that temperature compensation be permissible at all levels of petroleum sales, it also recognizes that a mandate for automatic temperature compensation technology in all petroleum sales within a short time period would present unreasonable costs to various levels of the petroleum industry. By making it permissive, market forces will dictate the implementation of this technology. Therefore, WWMA recommends the following:

Amend the Method of Sale Regulation in Handbook 130 by adding the following:

**2.XX. Refined Petroleum Products**

**2.XX.A. Where not in conflict with other statutes or regulations, refined petroleum products delivered through any meter may be sold with the volume adjusted to compensate for temperature. When petroleum products are sold temperature-compensated:**

- (a) All sales shall be in terms of liters or U.S. gallons at 15 °C (60 °F);**
- (b) The temperature compensation shall be accomplished through automatic means;**
- (c) The primary indicating elements, recording elements, and all recorded representations (receipts, invoices, bills of lading, etc.) shall be clearly and conspicuously marked to show that the volume delivered has been adjusted to the volume at 15 °C (60 °F);**
- (d) All sales by the same person or company for the same metering application within the same state shall be sold temperature compensated in 12-month increments. For example, a person or company may not choose to operate some meters at one location or meters at one location within a state with automatic temperature compensators and others without. Nor may a person or company choose to engage the automatic temperature compensator on a device only during certain times of the year.**

**Note: As defined in Handbook 130 Engine Fuels, Petroleum Products, and Automotive Lubricants Inspection Law, refined petroleum products are products obtained from distilling and processing of petroleum (crude oil), unfinished oils, recycled oils, natural gas liquids, refinery blend stocks, and other miscellaneous hydrocarbon compounds.**

## L&amp;R Committee 2007 Interim Agenda

At the 2006 CWMA Interim Meeting there was discussion regarding the Veeder Root report of underground tank temperatures nationwide. Additional data needs to be accumulated to verify the impact to consumers and marketers.

The market is requesting consideration of the temperature compensation method of sale for petroleum products. A representative from an equipment manufacturer commented that customers have requested the equipment for several years. It was recommended that the S&T Committee consider the Canadian regulations for temperature compensation.

API opposed the proposal at all levels in retail. It was noted by the API representative that 90 % of the service stations are owned by independent operators, not major oil companies. Other comments for opposition included the cost of converting pumps and additional time for regulatory officials to inspect.

The CWMA L&R Committee recommends support for the Western's Annual proposal with the permissive language as a voting item. The Committee agrees that temperature compensation is the more equitable method of sale and is currently predominantly utilized at every step of the distribution channel except for retail. Additionally, the Committee believes this proposal should not be restricted to only petroleum products but should also include alternative fuels such as E85, biodiesel and biodiesel blends.

SWMA at its 2006 Annual Meeting strongly encourages the NCWM L&R and S&T Committees to separate the various temperature compensation metering applications as follows: Wholesale (loading rack), Vehicle-tank Meter, Stationary Meters with flow rates of 30 gpm or more (Truckstops), and Retail Motor-fuel Devices with a flow rate of 30 gpm.

Due to the lack of documented information on the economic impact of temperature compensation for both industry and consumer, SWMA does not support temperature compensation for dispensers with flow rates of less than 30 gpm.

## 232-2 Biodiesel and Fuel Ethanol Labeling

Source: Central Weights and Measures Association (CWMA)

Recommendation: Add the biodiesel and fuel ethanol labeling requirements that currently appear in Handbook 130 Engine Fuels, Petroleum Products, and Automotive Lubricants Regulation to the Method of Sale Regulation.

Add the following text to the Method of Sale Regulation in Handbook 130:

2.XX. Biodiesel.

2.XX.1. Identification of Product. – Biodiesel and biodiesel blends shall be identified by the capital letter B followed by the numerical value representing the volume percentage of biodiesel fuel. (Examples: B10; B20; B100)

2.XX.2. Labeling of Retail Dispensers Containing Between 5 % and 20 % Biodiesel. Each retail dispenser of biodiesel blend containing more than 5 % and up to and including 20 % biodiesel shall be labeled with either:

2.XX.2.1. The capital letter B followed by the numerical value representing the volume percentage of biodiesel fuel and ending with 'biodiesel blend.' (Examples: B10 biodiesel blend; B20 biodiesel blend), or;

2.XX.2.2. The phrase 'biodiesel blend between 5 % and 20 %' or similar words.

2.XX.3. Labeling of Retail Dispensers Containing More Than 20 % Biodiesel. – Each retail dispenser of biodiesel or biodiesel blend containing more than 20 % biodiesel shall be labeled with the capital letter B followed by the numerical value representing the volume percentage of biodiesel fuel and ending with either 'biodiesel' or 'biodiesel blend.' (Examples: B100 Biodiesel; B60 Biodiesel Blend)

Mr. KUCINICH. Mr. Gafinowitz has submitted a statement for the record. And do I understand that is your statement and you will be available for questions. Did you want to make any comments?

**STATEMENT OF MARTIN GAFINOWITZ**

Mr. GAFINOWITZ. Thank you very much, Mr. Chairman, for the opportunity to testify and I will be happy to answer any questions.

Mr. KUCINICH. When we get to the question part make sure the mic is closer. Thank you.

[The prepared statement of Mr. Garfinowitz follows:]

**Statement of Martin Gafinowitz  
President, Gilbarco Veeder-Root**

**Testimony before the Domestic Policy Subcommittee  
of the  
House Committee on Oversight and Government Reform  
June 8, 2007**

Gilbarco Veeder-Root is one of two major suppliers of retail fuel dispensing equipment in North America. We supply systems related to the pumping and environmental monitoring of fuel from the underground storage tank to the dispenser, fuel dispensers for retail and commercial applications, and point of sale and merchandising solutions for retailers. We supply a wide range of customers within the United States. No single customer accounts for more than 10 per cent of our revenues. Gilbarco Veeder-Root is global in scale, with manufacturing facilities in the United States, Europe, South America and Asia.

Gilbarco Veeder-Root, along with two other companies, Dresser Wayne and Kraus Global, supplies automatic temperature compensation (ATC) equipment to the Canadian and European markets.

Following some additional product development work, we can deploy our ATC equipment in the United States when there is adequate market demand to justify doing so. At this point, however, we have not seen a demand for the equipment in the US marketplace. There is concern in the industry that the use of ATC on an optional basis would lead to confusion in retail pricing and marketing of gasoline and would increase the cost of operations, while net benefits to consumers are more dubious. Further, if the market demand did exist to offer ATC for sale, the regulatory process for certifying ATC equipment is more complex than simply flipping a switch.

**1. Provide an assessment of the reliability of temperature compensating technology.**

The reliability of automatic temperature compensation depends upon both the accuracy of adjustment factor tables and the reliability of the electronics making the modification.

Temperature compensation has been used in Canada for over a decade, and we are not aware of any issues with reliability in that market. The electronics that make the adjustment have proven to be reliable in the Canadian marketplace.

The purpose of the adjustment is to ensure that consumers receive the same amount of energy per gallon, rather than a consistent volume, as is the current regulatory requirement in the United States. Automatic temperature compensation involves using a table of adjustment factors to electronically modify the mechanical pulse signal within a dispenser based upon the temperature of the fuel compared to a reference temperature. The Canadian specification adjusts fuel volume to reflect a constant temperature of 15 degrees C (60.9 F). These adjustment factor

tables are traditionally defined by a national body, such as the National Conference on Weights and Measures in the United States, and can be developed using known physical properties of a liquid.

**2. What is the worldwide market for automatic temperature compensation?**

Temperature compensation is currently allowed on an optional basis in Canada, Switzerland and the United Kingdom. In January, 2008, it will be mandatory in Belgium. We estimate the current global market size for ATC components to be between \$4 million and \$8 million.

**3. What steps has Gilbarco taken to bring ATC to market in the United States?**

Gilbarco Veeder-Root has not attempted to bring the product to market, as we have not perceived sufficient customer demand for it. We are in the business of supplying products that meet the needs of our customers, not in setting policy or regulations. When there is sufficient market demand for this type of equipment, we will be prepared to meet it.

Mr. KUCINICH. Mr. Siebert, would you proceed?

**STATEMENT OF JOHN SEIBERT**

Mr. SEIBERT. I am John Siebert, project leader for the Owner-Operator Independent Drivers Association Foundation. Thank you, Mr. Chairman, and distinguished members of the subcommittee, for inviting me to talk about the retail sale of hot fuel.

The Owner-Operator Independent Drivers Association is the Nation's largest trade association representing small fleets and truck drivers. Many of our members were reporting a wide range of fuel mileage from one fill-up to the next. And that prompted the foundation to perform a nationwide survey of diesel fuel quality. The only significant variable we could find was temperature of the fuel. We had temperatures reported as high as 114 degrees.

Here are the reasons why dispensing hot fuel creates problems. The petroleum industry uses a reference temperature of 60 degrees Fahrenheit to determine volume of a gallon of fuel. As with many materials, when heated fuel expands, increasing its volume, retail pumps do not compensate for this expansion. Subsequently, each gallon that is measured by volume has less energy inside it.

Internal combustion engines run on energy, not volume. Through every step of the petroleum production distribution, up to and including the refinery rack, volume is computed using temperature compensation. However temperature compensation is not used after the tank truck fills up at the refinery rack, because the U.S. retail fuel pumps do not use temperature compensation. If fuel is hot, the 8,000 U.S. petroleum gallons at the rack may turn out to be 8,240 U.S. standard gallons which the retailer sells, but each gallon has a reduced amount of energy.

Simply put, American consumers are not getting what they pay for. Consumers are paying for energy they do not receive. This can equal \$27 to \$45 per car per year. Consumers are also paying a Federal gasoline tax of around \$140 million on these expanded gallons' taxes which are never remitted to the government.

How does it affect OOIDA members? Well, our members consumed 4.1 billion gallons of diesel fuel in 2006. At \$2.65 per gallon, that equals \$11 billion of purchases. And for truckers, hot fuel can equal losses of \$450 to \$630 per truck annually.

What can be done? Well, the new automatic temperature compensated pumps, or ATC retrofitted pumps, dispense an amount of fuel that is equal to a gallon at 60 degrees, regardless of the temperature the fuel actually is. There are already precedents for this. In 1975, Hawaii adopted a gallon of gasoline that was sized as if it were 80 degrees. Since 1995, Puerto Rico has had legislation mandating temperature compensation at retail pumps; however, it has never been implemented. And in Canada, where the fuel is cooler, retailers were very supportive of a voluntary converting over to automatic temperature compensation pumps.

Why hasn't it been addressed before? Well, last year it is estimated that retailers made an additional \$2.3 billion off of hot fuel sales. Petroleum producers and retailers seem to be universally opposed to adopting ATC at the retail level. This reminds us old-timers of making sure that the meat cutter kept his thumb off the scales when selling us a pound of hamburger. Fuel retailers are

meat cutters. Their thumbs are on the scale. They are ripping off American consumers some \$2.3 billion each year.

The Petroleum Marketers Association of America has stated that mandating temperature compensated or retrofitted pumps for fuel stations would increase the price consumers must pay for fuel. Well, retailers are facing a one-time charge that is nearly equal to the annual losses by consumers due to hot fuel.

The PMAA admits that hot fuel provides less energy, but will tell you it all balances out when you are buying cooler fuel in the winter. I direct you to the charts and graphs in my written statement which show this just isn't true. Since temperature affects the energy content of retail fuels, it is important that the buyer be just as aware of it as is the seller. Temperature compensation retail pumps make the entire transaction transparent and allows consumers to shop for their best fuel values, because every gallon of similarly labeled products will contain this same energy content.

Mr. Chairman, distinguished members of the subcommittee, again thank you for allowing me to talk about hot fuel, and I stand ready to answer any questions you might have.

Mr. KUCINICH. Thank you very much Mr. Siebert.

[The prepared statement of Mr. Siebert follows:]

BEFORE THE  
DOMESTIC POLICY SUBCOMMITTEE  
OF THE  
OVERSIGHT AND GOVERNMENT REFORM COMMITTEE  
U. S. HOUSE OF REPRESENTATIVES  
2154 RAYBURN HOUSE OFFICE BUILDING  
WASHINGTON, D. C. 20515

**PREPARED TESTIMONY OF:**

**JOHN SIEBERT  
PROJECT LEADER  
OWNER-OPERATOR INDEPENDENT DRIVERS ASSOCIATION FOUNDATION  
GRAIN VALLEY, MISSOURI**

JUNE 8, 2007

I am John Siebert, project leader for the Owner-Operator Independent Drivers Association Foundation. Thank you, Mr. Chairman, and distinguished members of the Subcommittee for inviting me to speak about the retail-sale of Hot Fuel.

The Owner-Operator Independent Drivers Association is the nations' largest trade association representing small fleets and truck drivers. Many of our members were reporting a wide range of fuel mileage from one fill-up to the next and that prompted the OOIDA Foundation to perform a nationwide survey of diesel fuel quality. The only significant variable we could identify was the temperature of the fuel. We had temperatures reported as high as 114 degrees.

Here are the reasons why dispensing hot fuel creates problems:

- The petroleum industry uses a reference temperature of 60 degrees F to determine the volume of a gallon of fuel.
- As with many materials, when heated, fuel expands, thus increasing its volume.
- Retail pumps do not compensate for this expansion, consequently while the pump may deliver a gallon by volume, each gallon delivered contains less energy when the fuel is warmer than 60 degrees.
- Internal combustion engines run on energy, not volume.

Through every step of petroleum production and distribution, up to and including the refinery rack, volume is computed using temperature compensation. From that point, no temperature compensation takes place. If fuel is hot, the 8,000 U.S. Petroleum Gallons bought at the rack may be 8,240 U.S. Standard Gallons which the retailer sells, but, each gallon has a reduced amount of energy.

Simply put, the American consumers are not getting what they pay for. Consumers are paying for energy they do not receive. This can equal \$27 to 45 per car per year. Consumers are also paying federal gasoline taxes of around \$140 million on these expanded gallons, which are never remitted to the government.

How it affects our members?

- Our members consumed 4.1 billion gallons of diesel fuel in 2006.
- At \$2.65 per gallon that equals \$11 billion per year.
- For truckers hot fuel can mean losses of \$450-630 dollars per truck, per year.

What can be done?

- New automatic temperature compensated pumps, or ATC retrofitted pumps, dispense an amount of fuel that is equal to a gallon at 60 degrees.

- There are already precedents for this
  - In 1975, Hawaii adopted a gasoline gallon sized as if it were 80 degrees
  - Since 1995, Puerto Rico, has had legislation mandating temperature compensation of all retail pumps, however it has never been implemented
  - In Canada, where fuel is cooler, retailers were very supportive of voluntarily converting to automatic temperature compensation pumps.

Why it hasn't been addressed before?

- Last year it is estimated that retailers made an additional \$2.3 billion dollars off of Hot Fuel sales.
- Petroleum producers and retailers seem to be universally opposed to adopting ATC at the retail level.

This reminds us old-timers of making sure the meat cutter kept his thumb off the scales when selling you a pound of hamburger. Fuel retailers are the meat cutters with their thumb on the scales ripping off American consumers some \$2.3 billion dollars a year.

The Petroleum Marketers Association of America has stated that mandating temperature compensated or retrofitted pumps for fuel stations would increase the price of fuel consumers must pay.

- Retailers face a one-time charge that is nearly equal to the annual impact of HOT Fuel on consumers.
- The PMAA admits that HOT Fuel provides less energy, but will tell you it all balances out when buying cooler fuel in the winter. I direct you to the charts and graphs in my written statement which shows that this is not the case.

Since temperature affects the energy content of retail fuels, it is important that the buyer be just as aware of it as is the seller.

Temperature compensating retail pumps make the entire transaction transparent, and allow consumers to shop for their best fuel values, because, every gallon of similarly labeled fuel contains the same energy.

Mr. Chairman, distinguished members of the subcommittee, again, thank you for this opportunity to address HOT FUEL during the hearing. I look forward to answering any questions you might have.

Testimony of  
**JOHN SIEBERT**  
**PROJECT LEADER**  
**OWNER-OPERATOR INDEPENDENT DRIVERS**  
**ASSOCIATION FOUNDATION**

Before the  
**UNITED STATES HOUSE OF REPRESENTATIVES**  
**COMMITTEE ON OVERSIGHT & GOVERNMENT REFORM**  
**SUBCOMMITTEE ON DOMESTIC POLICY**

Regarding  
**HOT FUELS:**  
**BIG OIL'S DOUBLE STANDARD FOR MEASURING GASOLINE**

*JUNE 8, 2007*

\*\*\*\*\*

Submitted by



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The Owner-Operator Independent Drivers Association Foundation, Inc., is a wholly owned, not-for-profit subsidiary of the OOIDA. The foundation is a research, safety, and education organization dedicated to advancing the welfare of the nation's truck drivers, and owner-operators.

OOIDA is the preeminent trade association representing the interests of commercial truck drivers and the 350,000 owner-operators in the country. With an active membership of 153,000 plus, OOIDA is active in representing their interests at the national, state, local levels as well as in the courts of the land. The average OOIDA member owns 1.5 trucks and each truck averages 110,000 miles a year. These trucks average 6 miles to the gallon, so fuel is their highest operating expense and reaches \$47,700, per truck per year when fuel is \$2.65 a gallon. Because small business truckers make their living in a highly competitive environment, the successful ones examine their income and expenses down to a fraction of a cent per mile for every mile they travel.

The OOIDA board of directors is made up of 26 active owner-operators and during one of their 2002 meetings they asked the OOIDA Foundation to look into "diesel fuel quality", as they had noticed getting different mileage figures from different fill-ups. Subsequently, a fuel sample collection and testing program was set up and over the next six months and 32 samples were sent to a laboratory for analysis. The reports came back that all the samples qualified as, "normal #2 Diesel Fuel."

However, in reading the criterion for fuels to be labeled "#2 Diesel," I noticed that each fuel component had the caveat of, "at 60 degrees F." following its quantity figure. Reading further I found that petroleum products were highly reactive to temperature, expanding as temperatures rise, and contracting as temperatures lower. For this reason, I asked my sample collectors to also record the ambient atmospheric temperature, as well as the temperature of the fuel coming out of the truck stop tanks. From the subsequent 32 fill-ups, from across the country, not one truck stop had fuel at, or below, the reference temperature of 60 degrees Fahrenheit. The hottest fuel temperature recorded was 98 degrees F.

#### **THE PROBLEM:**

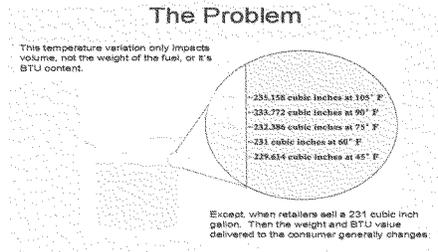
For more than 100 years, the petroleum industry has used a reference temperature of 60 degrees F. to measure flow rates and volumes of fuel. Fuel traded between producers is always temperature compensated to what that volume would be if the fuel were 60 degrees F. There are books with pages upon pages of tables which give the exact expansion and contraction factor for each fuel at every conceivable temperature. Today computer programs perform this task, but basically temperature compensation remains exactly the same. The unit of measure this system uses to measure fuel is called the "US Petroleum Gallon" which is defined as: "231 cubic inches, at 60 degrees F."

The US Petroleum Gallon is the only unit of measure used for sales between producers, and producers and wholesalers. It is also used between producers and large fuel retailers. But, it is not used between any US fuel retailers and fuel consumers, that I know of. The last time fuel is measured using the "US Petroleum Gallon" is when the producer or wholesaler fills the tank truck which will deliver the fuel to a retail filling station. At the retail filling station, consumer pumps deliver only a "US Gallon," which is 231 cubic inches of volume, regardless of the fuel's temperature.

The crux of the problem is retailers are buying fuel at the producer's/wholesaler's rack, and paying the fuel taxes, on a temperature compensated volume, the US Petroleum Gallon. However and they are selling to consumers, and recouping the already paid taxes, in a different measurement unit, the US Gallon.

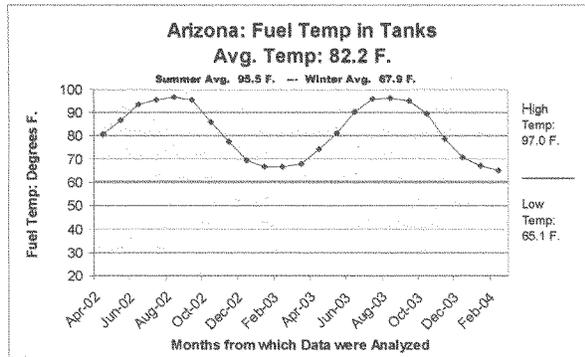
**Fuel Expansion Factors:**

Diesel fuel expands and contracts 1% for every 22 degrees F. of change. Gasoline is more reactive to temperature and will expand and contract 1% for every 15 degrees F. of change. Liquefied Petroleum Gas, or LPG, expands and contracts 1% for every 6 degrees F., and it is also universally measured, even when delivered to the customer's home via a small tank truck, in a temperature compensated gallon, as if it were 60 degrees F.



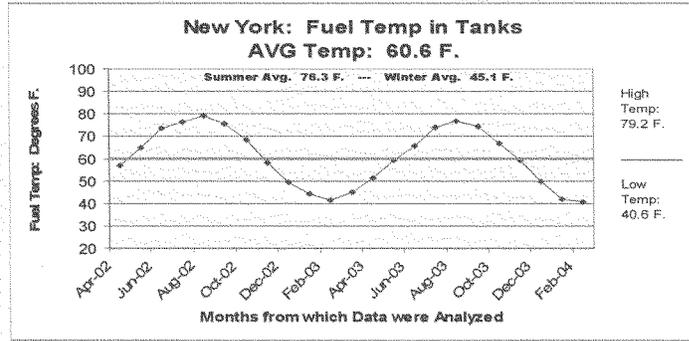
The above illustration depicts how a sample of gasoline would react to changes in its temperature. At 90 degrees F., the consumer is getting 2% less weight and BTU content than the retailer paid for when the gallon was temperature compensated to 60 degrees F. At 45 degrees F., the consumer is getting 1% more weight and BTU content than the retailer paid for at the rack.

How does this expansion and contraction play out in the retail arena? Below is a chart of the temperature of gasoline in filling station tanks in Arizona for a period of 23 months:



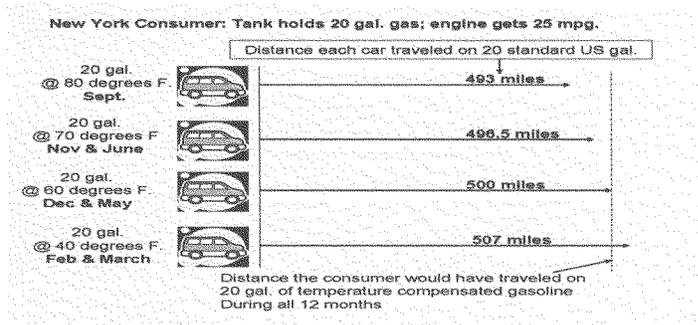
Obviously, retailers buying at Net 60 degrees at the rack have a lot of temperature-effect margin to work with at the retail pumps. And even though there is a seasonal spread of 30 degrees in summer and winter temperatures of the fuel, it never dips below 60 degrees in filling station's tanks.

Let's take a look at New York State, where fuel averages out to be very near the 60 degree reference temperature.

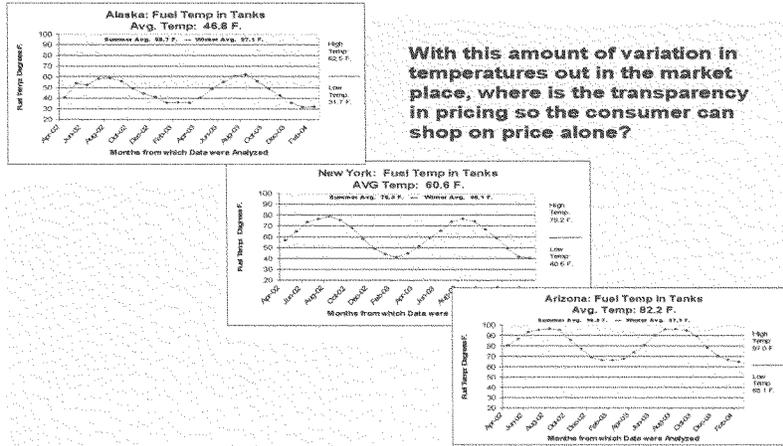


As you can see there is still nearly a 40 degree F. spread between the warmest and coolest temperatures of the gasoline, or a volume variance of 2.66%, which at \$2.65 a gallon, is a temperature induced difference of \$0.07 a gallon over the year.

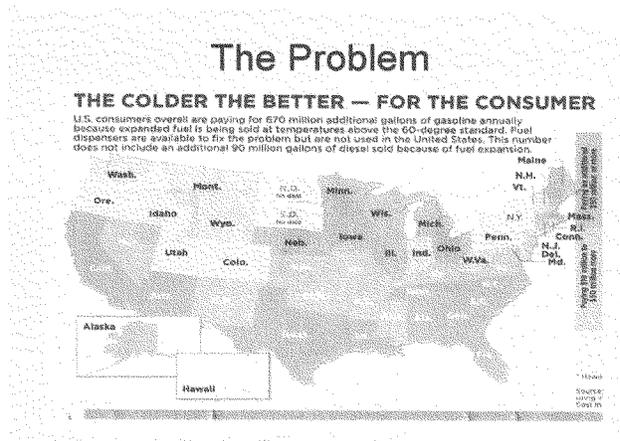
What does that mean to New York Consumers as they buy fuel during the year? The following chart shows the temperature expansion/contraction of fuel's impact on gas mileage:



The US consumer expects that every time they fill up they are getting equivalent amounts of energy that will take them the same distance, an expectation that is not true as long as retail fuel is measured only in US Standard Gallons. The following illustration shows this very well. Although New York State's fuel temperatures show a definite seasonal change that passes directly through the 60 degree F. reference temperature, fuel temperatures in other states can be in the extremes.



So, how does the entire nation fair in comparison to New York State? The map below shows the level of economic impact the temperature of gasoline has on consumers across the nation:



A graph that interprets the map above shows the scale and proportion of the problem that is borne by the highly populated states that are located in the southern half of the country. Subtracting the gains experienced in the cool states for the losses in the warm states still produces a net loss for the nation's consumers of \$2.3 billion a year when prices are close to \$3.25 a gallon for gasoline.

### The Problem

STATE	AVERAGE FUEL TEMPERATURE	STATE FUEL CONSUMPTION (BILLIONS OF GALLONS)	CONSUMER GAIN OR LOSS (BILLIONS OF DOLLARS)	STATE	AVERAGE FUEL TEMPERATURE	STATE FUEL CONSUMPTION (BILLIONS OF GALLONS)	CONSUMER GAIN OR LOSS (BILLIONS OF DOLLARS)
Alaska	32°	0.1	\$1.0	Alabama	72°	2.2	-\$2.2
Arizona	52°	0.2	\$0.2	Arkansas	70°	1.0	-\$1.0
California	58°	1.2	\$1.2	Colorado	62°	0.2	-\$0.2
Connecticut	42°	0.1	\$0.1	Delaware	64°	0.1	-\$0.1
District of Columbia	52°	0.05	\$0.05	Florida	78°	1.3	-\$1.3
Illinois	48°	0.5	\$0.5	Georgia	72°	0.4	-\$0.4
Indiana	48°	0.3	\$0.3	Hawaii	82°	0.05	-\$0.6
Iowa	48°	0.2	\$0.2	Idaho	50°	0.2	-\$0.2
Kansas	48°	0.2	\$0.2	Maine	42°	0.1	\$0.1
Kentucky	48°	0.2	\$0.2	Massachusetts	42°	0.1	\$0.1
Louisiana	72°	0.2	-\$0.2	Michigan	48°	0.3	\$0.3
Madison	48°	0.2	\$0.2	Minnesota	48°	0.3	\$0.3
Maryland	52°	0.1	\$0.1	Mississippi	72°	0.1	-\$0.1
Massachusetts	42°	0.1	\$0.1	Montana	42°	0.1	\$0.1
Michigan	48°	0.3	\$0.3	Nebraska	48°	0.2	\$0.2
Minnesota	48°	0.3	\$0.3	Nevada	58°	0.1	\$0.1
Mississippi	72°	0.1	-\$0.1	New Hampshire	42°	0.1	\$0.1
Montana	42°	0.1	\$0.1	New Jersey	52°	0.1	\$0.1
Nebraska	48°	0.2	\$0.2	New Mexico	62°	0.1	\$0.1
Nevada	58°	0.1	\$0.1	New York	52°	0.3	\$0.3
New Hampshire	42°	0.1	\$0.1	North Carolina	68°	0.2	-\$0.2
New Jersey	52°	0.1	\$0.1	North Dakota	42°	0.1	\$0.1
New Mexico	62°	0.1	\$0.1	Ohio	48°	0.4	\$0.4
New York	52°	0.3	\$0.3	Oklahoma	68°	0.1	-\$0.1
North Carolina	68°	0.2	-\$0.2	Oregon	52°	0.1	\$0.1
North Dakota	42°	0.1	\$0.1	Pennsylvania	52°	0.4	\$0.4
Ohio	48°	0.4	\$0.4	Rhode Island	42°	0.1	\$0.1
Oklahoma	68°	0.1	-\$0.1	Tennessee	68°	0.2	-\$0.2
Oregon	52°	0.1	\$0.1	Texas	72°	1.2	-\$1.2
Pennsylvania	52°	0.4	\$0.4	Utah	58°	0.1	\$0.1
Rhode Island	42°	0.1	\$0.1	Virginia	62°	0.1	\$0.1
Tennessee	68°	0.2	-\$0.2	Washington	52°	0.1	\$0.1
Texas	72°	1.2	-\$1.2	West Virginia	58°	0.1	\$0.1
Utah	58°	0.1	\$0.1	Wisconsin	48°	0.2	\$0.2
Virginia	62°	0.1	\$0.1	Wyoming	42°	0.1	\$0.1
Washington	52°	0.1	\$0.1				
West Virginia	58°	0.1	\$0.1				
Wisconsin	48°	0.2	\$0.2				
Wyoming	42°	0.1	\$0.1				

\* Hawaii sets a higher price based on the assumption of an 80 degree fuel temperature.

Just a cursory glance at the Consumer Gain or Loss Columns reveals that consumer losses far out-weight the gain to consumers due to the temperature of the fuel just using the state's annual average fuel temperature. You can plainly see that consumer losses in warm states are 10 times the consumer gains in cool states. This map and chart also do not account for the 90,000,000 gallons of additional diesel fuel that are sold each year due to temperature expansion.

Annual consumer losses in warm states can approach \$30 to \$50 per car for gasoline alone. Trucker losses for those that drive primarily across the southern states can be as much as \$400 to \$700 for their diesel fuel, per truck, per year.

**THE SOLUTION**

The solution for this problem is to apply the same technology used throughout the petroleum production and distribution industry to the final fuel transaction, the retail sale. Automatic Temperature Compensation, (ATC) pumps are available for use throughout the world. American pump manufacturers are making ATC pumps for the global-market, they just do not have a domestic market for them, yet. There are also companies who manufacture retro-fit kits that fit existing digital and mechanical pumps used in our domestic market, which will turn those pumps into ATC retail pumps. At a maximum of \$2,000 to retrofit a digital pump, and \$4,000 to retrofit the smaller number of existing mechanical pumps, it is estimated the total cost to retrofit the entire country is \$2 billion. However, fuel retailers average buying new pump registers around every five years anyway, to add new features in their competition for customers. As banking technology advances existing pump credit card readers will become RFID receivers or Blue Tooth transponders requiring new registers to be put in place.

US petroleum producers, marketers, and retailers are universally against introducing temperature compensation into the US retail market. Their stated reasons are the additional cost and the pressure retrofitting would put on the small individual retailers. However, the reversing of a policy that has given them \$2.3 Billion a year, and would continue to do so on into the future if not changed, seems a more reasonable explanation.

**CANADA, HAWAII, AND PUERTO RICO**

Canada has been putting in ATC equipped retail pumps since 1990 in a voluntary adoption program. Now 75% of the retail pumps, which sell 90% of the retail fuel in Canada are temperature

compensated. In Canada, where the fuel averages being less than 60 degrees F. most of the year, it was the fuel retailers who were experiencing losses due to shrinking stocks. Fuel producers, distributors, and retailers joined wholeheartedly with the government to educate the Canadian consumers of the fairness of ATC for retail fuel sales.

In 1975, Hawaii adopted a standard gallon that reflected 80 degrees F. instead of 60 degrees F. for sales of gasoline in the state. Since the state has a relatively stable climate an easy fix for them was to roughly temperature compensate the fuel dispensers so they pumped out a larger sized gallon. This solved a 20 degree F. expansion of gasoline, but still misses equity in that market, since the fuel in Hawaiian filling station tanks averages 86 degrees F. annually.

Puerto Rico passed a law in 1995 that mandated ATC at the retail fuel pumps. Since no retail establishments had converted to ATC pumps by the year 2005, a class action suit was filed against the appropriate governmental agency which is responsible to oversee the transfer to ATC pumps. Arguments in the case went all the way to the Puerto Rico Supreme Court which found the plaintiffs had a right to litigate, and the suit continues to be adjudicated.

#### **MYTHS ABOUT FUEL TEMPERATURE COMPENSATION**

**Myth:** In-ground tanks keep fuel at 60 degrees F.

**Fact:** Double walled fiberglass tanks tend to keep fuel at the temperature it was delivered... for a long time. Also, large vendors turn over their fuel inventory very quickly, greatly reducing the fuel dwell time in their tanks.

**Myth:** The effects on fuel taxes and environmental issues present "fatal flaws" in temperature compensation.

**Fact:** Most states collect Federal Fuel Taxes at the rack on already temperature compensated gallons. ATC will balance the states fuel tax books, something they cannot do now. The EPA already requires temperature compensation to be a part of the calculation for finding leaks in tanks holding over 10,000 gallons. ATC could only improve this data collection.

**Myth:** Temperature expansion/contraction only causes tablespoons of difference in the amount of fuel delivered.

**Fact:** A 25 gallon fill-up of 75 degree F. gasoline equated to a loss of nearly one quart. The same fill-up at 90 degrees equates to nearly a half gallon.

**Myth:** The cost to retro-fit retail pumps will far outweigh any consumer benefit.

**Fact:** The one-time cost to retro-fit retail pumps is very close to the extra amount consumers already pay annually for HOT Fuel.

**Myth:** If we study retail "Hot Spots," located close to refineries, we can find a solution.

**Fact:** Temperature compensation at the retail level is the only logical solution to "Hot Spots." We're dealing with retained process heat, in "Just-In-Time" manufactured fuels, not deliberate fuel heating by retailers.

**CONCLUSION:**

Retail fuel sales in the US leave consumers in the dark about the temperature of the fuel they are buying. Since fuel temperature is an important factor in how much energy is in a gallon, it is something that should be figured into the sale.

Computerized Automatic Temperature Compensation retail pumps sell US petroleum gallons so the consumer is getting consistent energy in each gallon he purchases, without regard to which station he buys it, or what the temperature of the fuel is in the filling station's tanks.

ATC pumps stand head and shoulders above what we have been using for the past hundred years. The technology is available and being used by other countries. It can be used in the US to make fuel purchases a fair deal for all involved. OOIDA certainly supports any move to make temperature compensation of retail fuels the law of the land.

Mr. KUCINICH. We are now ready to go to questions of the panel. I would like to begin with some questions of Mr. Gafinowitz, whose company, I understand, manufactures the automatic temperature compensation devices. And because of your unique understanding of this, the committee is very grateful for your presence here today so that we in the States may be better able to understand how this technology works.

And I would like to start by: Where do you sell your temperature compensating devices Mr. Gafinowitz.

Mr. GAFINOWITZ. We primarily sell temperature compensated devices in Canada.

Mr. KUCINICH. Have you ever received complaints from your customers in Canada that your automatic temperature compensating devices do not work accurately?

Mr. GAFINOWITZ. No, we have never received those complaints.

Mr. KUCINICH. I assume your Canadian customers would include readily identifiable names here in the United States?

Mr. GAFINOWITZ. There are certainly readily identifiable names among our Canadian customers.

Mr. KUCINICH. Would those names be ExxonMobil, Shell Husky, companies like that.

Mr. GAFINOWITZ. I think all of those companies do market fuels in Canada.

Mr. KUCINICH. Mr. Gafinowitz, you applied with the State of California, if I am correct, to certify your automatic temperature control devices for sale in California on or around December 2006. Why?

Mr. GAFINOWITZ. Mr. Chairman, I think everybody is aware there has been a tremendous amount of market interest and discussion on automatic temperature compensation. We put out equipment in front of the California regulatory body for certification to see what would be required to bring this equipment to market in the United States.

Mr. KUCINICH. And, of course, there was a cost associated with the application. What was it.

Mr. GAFINOWITZ. The cost actually associated with the application is minimal. I am not sure of the exact figure, but it is a minimal cost.

Mr. KUCINICH. Something in the nature of \$3,000?

Mr. GAFINOWITZ. It sounds like you are more familiar with the exact number than I am, sir.

Mr. KUCINICH. Why was Gilbarco willing to spend any money to obtain certification?

Mr. GAFINOWITZ. It seemed highly likely that at some point the equipment would be available for sale in the United States.

Mr. KUCINICH. So you thought you could sell them.

Mr. GAFINOWITZ. Well, our company was looking to prepare ourselves for the point in time when there was market demand for that equipment and wanted to understand what would be required to bring that equipment to market in the United States.

Mr. KUCINICH. Why were you under the impression that you would be able to sell the automatic temperature compensation device in California?

Mr. GAFINOWITZ. There had been a tremendous amount of press coverage on the need for automatic temperature compensated devices and some of the States had begun looking at legislation for that equipment.

Mr. KUCINICH. Now, have you in fact sold any of your automatic temperature compensation equipment in California?

Mr. GAFINOWITZ. We do not have the equipment on the market in California or elsewhere in the United States.

Mr. KUCINICH. Why not?

Mr. GAFINOWITZ. The work we did with the California regulators was in preparation for bringing that equipment to market. We never actually attempted to bring the equipment to market. The reason we didn't do that is for us to sell any equipment, we need demand from our customers. When there is demand from our customers, we will be ready to sell the equipment.

Mr. KUCINICH. You are saying there might be an interest but there may not be a demand?

Mr. GAFINOWITZ. Sir, I burden of proof, sir.

Mr. KUCINICH. Mr. Gafinowitz, let me read from the minutes of a meeting of the National Conference on Weights and Measures, Laws and Regulations Committee, and this is a quote: A meter manufacturer testified that a decision on this issue was needed, indicating that parameters must be defined and a decision to allow or disallow temperature compensation in retail fuel transactions is necessary for the industry to determine its direction on the matter. The manufacturer stated that his company is receiving increased calls from customers requesting the technology and mentioned two major manufacturers who currently have developed ATC devices. He recommend that the committee pursue permissive, not mandatory, language in developing the model regulation. The manufacturer noted that previous attempts to submit automatic temperature control devices for type approval has been rejected and therefore certificates of conformance cannot be obtained.

Did your company receive increased calls from customers requesting the technology?

Mr. GAFINOWITZ. We received calls from a small number of customers interested in that technology.

Mr. KUCINICH. And what happened to these potential customers.

Mr. GAFINOWITZ. We are not currently in a position to supply that, because prior to our work in California, the equipment wasn't certified for sale in the United States.

Mr. KUCINICH. So you are saying after certification, you had no customers. Is that what you are saying?

Mr. GAFINOWITZ. First, it was a relatively limited demand that we received from customers. And even post certification from California, the equipment is not yet ready for market. There is still some work that needs to be done.

Mr. KUCINICH. As I listen to your testimony, what occurs to me is that you have interests from customers 1 day and not the next. And, Mr. Gafinowitz, I think the question everyone wants to know is: Are you aware of efforts made by oil companies to pressure customers for your automatic temperature control devices to suddenly lose their interest?

Mr. GAFINOWITZ. We have not been pressured not to sell the equipment. I think the industry's position on this equipment is fairly widely stated, that the industry and the number of industry bodies are not in favor of installing this equipment.

Mr. KUCINICH. Let me just say I can understand that this is a difficult topic for you to discuss, because the question relates to not whether they pressured you but pressured the customers. And I think, after all, isn't it true that most of your company's business is concerned with selling other types of devices to the oil industry other than ATCs? And your company's customers for other lines of business are in the oil industry; isn't that correct?

Mr. GAFINOWITZ. That is correct.

Mr. KUCINICH. And under these circumstances, believe me, I can understand that Gilbarco might feel uncomfortable. But it is so important that we have a chance to discuss this, because it is an issue of great social importance to millions of consumers who drive to work every day, take family vacations in their car, shuttle their kids to soccer games.

If there are barriers to the introduction of fair measuring of gasoline in the United States, if there is a coordination in the industry to keep these automated temperature compensation devices out of the retail market, I would say that this is something which this committee and this Nation needs to know. And I want to really see what the real story is behind the disappearance of automatic temperature control customers in the United States.

Do you have any ability or willingness to tell the committee who those interested customers were?

Mr. GAFINOWITZ. I do not know who the specific interested customers were.

Mr. KUCINICH. Can you tell the committee who might be able to help the committee learn who they were?

Mr. GAFINOWITZ. Most of our business is transacted in the U.S. market through a large number of third-party resellers and distributors. The demand that we received or the inquiries we received is likely to have come through those distributors rather than direct to our company.

Mr. KUCINICH. I want to say that, you know, we are going to read your testimony very carefully and consider if we might need you to come back at a later date. I think that the committee might be getting a little bit more information here as to why the oil company executives refused to appear before this committee. Because this question about whether or not the oil companies have taken any action to frustrate the automatic temperature control device's appearance on the market becomes a very serious issue.

Now, I have some other questions, but I am going to defer to members of the committee right now for their time.

Mr. Davis is recognized for 5 minutes.

Mr. DAVIS OF ILLINOIS. Thank you very much, Mr. Chairman.

Mr. Suiter, let me ask you, from a scientific perspective, would you say that the use of two different methods of measurement for gasoline is fair?

Mr. SUITER. I am sorry, I didn't hear the last part of your question.

Mr. DAVIS OF ILLINOIS. Would you say that it is fair from a scientific perspective to use these two different methods to measure gasoline?

Mr. SUITER. The work that has been done at NIST is not really an issue of fairness, though we do strive to achieve equity in the marketplace. Temperature compensation will provide an equal measurement of product at the dispenser.

Mr. DAVIS OF ILLINOIS. And would you agree that the equipment and devices that have been developed provides pretty valid information?

Mr. SUITER. From a standpoint of accuracy of measurement, if a device has had an approval or a certificate of conformance it would mean that, yes, it meets all of the legal requirements and can operate accurately.

Mr. DAVIS OF ILLINOIS. Let me ask you, Mr. Seibert, in your testimony, you state that the trucks that your members drive average 6 miles to the gallon and that fuel at its highest operating expense reaches up to \$47,700 a truck that a driver could spend in a year when the fuel is \$2.65 a gallon. You also wrote that small business truckers examine their income and expenses down to a fraction of a cent per mile for every mile they travel. Does buying hot fuel that is not temperature adjusted virtually eliminate the profits of the small business person who is a trucker?

Mr. SEIBERT. Sir, it doesn't eliminate the profits, but it certainly cuts into it. Truckers, especially independent truckers, will be working as many as 80, 90 hours a week for about \$35,000 \$40,000; and included in that is their hourly wage and their profits. They will have about \$10,000 worth of profit, and \$750—\$500 to \$750 off of that \$10,000 profit is a sizable chunk of their profit for the year, yes.

Mr. DAVIS OF ILLINOIS. I understand that about 75 percent of the retail pumps in Canada actually are using this equipment. And while you can't necessarily subscribe the motives of the industry in terms of what it might or might not do, I wouldn't imagine, but in your expert opinion, if the pumps have this technology in Canada and they are the same businesses, the same industries, the same corporations, the same companies, why would you think that they are being used in Canada and not being used in the United States?

Mr. SEIBERT. Because the temperature of the fuel in the tanks in Canada is generally below the 60-degree standard; and so if you buy fuel at the rack temperature compensated to 60, you are actually selling more energy per standard Canadian gallon than they bought. So it was an economic hit for them. They were having to artificially work within the market to have a price that would give them a profit.

In the United States, when it is only that way across the northern tier of States and the southern tier and the west primarily have warm temperatures, it is an economic boon for the oil-producing company and the retailers.

Mr. DAVIS OF ILLINOIS. So it is an economic decision—

Mr. SEIBERT. Absolutely.

Mr. DAVIS OF ILLINOIS [continuing]. That the companies make.

Mr. SEIBERT. Business practice.

Mr. DAVIS OF ILLINOIS. And if I could just ask, and if you could, each one of you, answer yes or no, in a way, if you could, do you think that making use of this technology in any way tampers with our concept of the free enterprise system?

Mr. SEIBERT. Absolutely not. The free enterprise system is based on both the buyer and the seller having the same knowledge of the operation of the product; and when one party in the buying and selling transaction in free enterprise has particular knowledge about that product's operation and doesn't share it with the other person, that is considered a violation of the free enterprise system.

Mr. DAVIS OF ILLINOIS. Mr. Gafinowitz.

Mr. GAFINOWITZ. No, I don't believe it tampers with the free enterprise system.

Mr. DAVIS OF ILLINOIS. Mr. Cleary.

Mr. CLEARY. I don't believe it tampers with the free enterprise system at all. I just believe for it to be equitable in the marketplace a decision has to be made to do it across the board or not. You can't possibly hit or miss with temperature compensation. If you had a service station on one side of the street temperature compensating and a station on the other side wasn't, how would the consumer be able to make a decision as far as, you know, basing their decision on purchasing a product one way or the other based upon price?

Mr. DAVIS OF ILLINOIS. Mr. Suiter.

Mr. SUITER. No.

Mr. DAVIS OF ILLINOIS. Thank you, gentlemen, very much.

Thank you, Mr. Chairman.

Mr. KUCINICH. All right. Thank you, Mr. Davis.

Mr. Cummings.

Mr. CUMMINGS. Thank you very much, Mr. Chairman.

I want to pick up on where Mr. Davis left off, and I want to go to you, Mr. Cleary. The National Conference on Weights and Measures mission statement is to advance a healthy business and consumer climate through fair and equitable weights and measures standards. Is that correct?

Mr. CLEARY. Yes, sir.

Mr. CUMMINGS. Is the double standard created by different measurement standards for gasoline and diesel fair and equitable, as the NCWM suggests? I mean, is it consistent with what you all are supposed to be trying to do?

Mr. CLEARY. I think the fact that we are actually debating and trying to resolve the issue shows that we are trying to achieve that equity, sir.

Mr. CUMMINGS. I want to put a pen in that and come right back to that.

Mr. CLEARY. Yes, sir.

Mr. CUMMINGS. Using the data provided by NIST, the subcommittee calculated that 513.8 million gallons of gasoline sold in the summer of 2007 will be attributable to the thermal expansion of gasoline and that consumers will pay a hot fuel premium this summer in the range of \$1.5 billion—not million—billion. Does the cost to the consumers violate the concept of fair and equitable that the NCWM claims to be their mission statement? If what I said was accurate, does it violate it?

Mr. CLEARY. If what you said is accurate, I would say we would be deeply concerned about that issue taking place. And what I can offer you, sir, is the fact that we have people within the conference who are passionately in favor of temperature compensation at the retail level and are working passionately to try to develop and pass a model law that the States can adopt. We have people at the conference who are equally as passionate feeling as if temperature compensation is not the correct way to go.

Mr. CUMMINGS. Who is against it?

Mr. CLEARY. Various individuals within the conference. We have 2,400 members, sir.

Mr. CUMMINGS. Well, OK. There have to be groups. The chairman—you know, we have but so much time do these hearings and to do investigations—

Mr. CLEARY. Yes, sir.

Mr. CUMMINGS [continuing]. And part of our mission is to make sure the taxpayers' dollars are spent effectively and efficiently. We want the people who are against it to come before us so we can understand what their issue is so we can examine them, so we can make the best use of our time. And so—and we want to be in a position to be able to look at what the NCWM is doing and make some kind of determination as to whether or not they are dealing with this situation fairly.

Now, you are—what is your position? I mean, in other words, with the NCWM.

Mr. CLEARY. My position, I am the chairman of the conference.

Mr. CUMMINGS. You are the chairman.

Mr. CLEARY. Yes.

Mr. CUMMINGS. You are the man. So what I want to know is, since you are the chairman, I am asking you for the benefit of all of us so that we can be efficient and effective in our efforts and so that we can help consumers who are out there right now trying to pay for gas that they cannot afford, I am asking you, Mr. Chairman, who is against it? I think that is a fair and reasonable question. And if you want to give us a list in a day or so, by Monday, so that we can examine those, talk to those people and see who we are dealing with, I would appreciate it if you would do that.

I don't want to put you on the spot, but I assume you would know, and I assume you are supposed to be acting in the best interests of a healthy business and consumer climate through fair and equitable weights and measures. So consistent with your duties as the chairman, I am begging you, I am not asking you—no, I am asking you, because I shouldn't have to beg, for you to provide us with that information.

Mr. CLEARY. I would like to tell you that the people who have concerns about temperature compensation at the conference, a lot of the people are technical people who have concerns based on the fact that they want to make sure that this equipment operates correctly. And if it is in the marketplace, we need to know how to test the equipment, how to go out there and check the pump to make sure it is working properly. They want to know that the devices that are sold have been approved for use and that they are going to work. They want to make sure that if the technology is used fraud doesn't take place.

Mr. CUMMINGS. Right. And they are already doing it in Canada. Is your organization looking at the Canadian model?

Mr. CLEARY. Absolutely, sir. We have membership in our organization from the Canadian regulatory officials, and they have been helping us tremendously to try and sort this out.

Mr. CUMMINGS. I see my time is running out, but I have to ask you this. Their suggestions of delaying the July vote on voluntary standards, how would such a delay be fair and equitable to the consumers you are charged with protecting and who are paying the \$1.5 billion premium?

First of all, is there—have you all—I know you are the chairman, so you would know this information. Have there been discussions about a delay of a vote?

Mr. CLEARY. Yes, sir, there has.

Mr. CUMMINGS. And what is the basis of the delay?

Mr. CLEARY. The people who are calling for the issue to be reduced to an informational item for the time being feel that the issue is not ready yet for a vote.

Now, if you ask me for my personal opinion—

Mr. CUMMINGS. Yes, I would love to hear that.

Mr. CLEARY [continuing]. I feel the issue is ready for a vote, and it should be voted on in July.

Mr. CUMMINGS. Is there anything you would like for us to do to encourage a vote, since our consumers are suffering greatly, so that we can kind of urge you all to do a vote? I mean, is there anything that we can do, you would like for us to do to help you, since you are the man?

Mr. CLEARY. I am a volunteer. I just want to state for the record this is a voluntary organization.

Mr. CUMMINGS. You are the volunteer man.

Mr. KUCINICH. Just remember no good deed goes unpunished.

Mr. CLEARY. Exactly. The chairman of the conference generally is the person who just doesn't show up for the meetings, so to speak. But, you know, certainly your encouragement will be brought back to the conference, and I will do just that.

Mr. CUMMINGS. Thank you very much.

I see my time has run out. Thank you, Mr. Chairman.

Mr. KUCINICH. Yes, sir. Mr. Cummings, I think your time actually is just beginning.

The Chair recognizes the gentlelady from California.

Ms. WATSON. Thank you very much, Mr. Chairman.

In listening to this past dialog it occurs to me maybe we need to have a hearing, Mr. Chairman, on the refineries. I am hearing about the technology and whether or not it is ready to move forward. You know, what is the problem with the refineries? They are saying the cause of the rise in a gallon of gasoline is due to the refineries, and they need to be—what is that—remodeled, they need to be brought up to standards, they need to be repaired. Maybe we ought to have a hearing on the refineries, since that is where everyone is pointing their fingers.

Now, back to the questions at hand, think about it, I am going to suggest that Mr. Seibert answer these questions. According to an energy watchdog organization, Public Citizen, since 2001, the largest six oil companies operating in the United States—and they are

Exxon, Chevron, Texaco, ConocoPhillips, BP Shell and Valero—recorded I guess \$477 billion in profit. Now do you think it would bring economic harm to these corporations to drop the double standard of hot fuel? The finger on the scale?

Mr. SEIBERT. I can't see how it would. As a matter of fact, the impact on their profit margin is so small I don't know why the thumb is there.

Ms. WATSON. You know, I guess I am just being a little—I am using a little levity, but we can never get down to the reason for the rise in prices of gasoline except refineries. It is going to bring great harm. I think it is calculated and manipulated with an intent that is, in my estimation, just greed. So because we are having this hearing that is being recorded, both video and audio, can you—and you can be cautious—what do you really think is going on?

Mr. SEIBERT. In my heart of hearts, I think that we have an unspoken collusion. It doesn't need to be organized. It doesn't need to be back room. We have deregulated an industry and told them that they are in charge of supply, and they have very graciously taken that and used it in great American entrepreneurship. They reduced the supply and increased the demand.

Ms. WATSON. We measure our words here because everything we say goes down. But I think the word "collusion" confirms what I have been thinking and spoken, unwritten. But the consumer, in my estimation, is just being simply ripped off; and that is the reason why these hearings are so important, so we can bring out into the public what is going on in our economy.

I think the biggest offenders are the oil companies that take advantage of people at a time of desperate need and up those prices. And they say it is the refineries, it is going to be hard on business and all, and we can never put our finger on the facts. So I do appreciate, you know, measuring your words but honesty at this panel.

I have another question, and I will aim this toward Mr. Suiter. In your written statement, you state that some States prohibit temperature compensation at the retail level, some States do this at all levels, and still other States regulate temperature compensation by the particular fuel. So can you provide for this committee a compilation of each State's regulations concerning temperature compensation for all relevant fuels? Not now, but can you give it to us in writing? You know, we need to come out of these hearings with some factual information that we can take public. So if you can do that for us we would appreciate it. And you might want to comment.

Mr. SUITER. I believe that a search of State weights and measures laws would probably yield that information, and that is something that could be probably done.

Ms. WATSON. Could you provide that for us?

Mr. SUITER. I can certainly try.

[The information referred to follows:]

Jurisdiction	Is Temperature Compensation Permitted on:					Law, Regulation or Comment
	Wholesale Meters (e.g., loading rack meters)	Vehicle Tank Meters (e.g., home heating fuel)	Engine Fuel Dispensers – High Speed (e.g., truck refueling)	Engine Fuel Dispensers – Other (e.g., retail service stations)		
1 Alabama	Yes	Yes	Yes	Yes	Yes	Alabama adopts NIST Handbooks and applies the applicable criteria to devices using temperature compensation at the wholesale level. No companies have asked to use temperature compensation at the vehicle-tank level or at the high-speed engine fuel level. Nothing in Alabama's law, regulation, or policy specifically prohibits temperature compensation.
2 Alaska	Yes	Yes	Yes	Yes	Yes	
3 Arizona	Yes	Yes	Yes	Yes	Yes	ARIZONA REVISED STATUTES TITLE 41 CHAPTER, 41-2082. Sale, delivery or consignment of motor fuel; temperature compensation - For the purpose of any sale, offer to sell, delivery or consignment of motor fuel in a quantity of five thousand gallons or more, the volume of the motor fuel for the purposes of calculating the price of the motor fuel is considered to be the volume that the quantity of the motor fuel would equal at the time of loading for sale, delivery or consignment if the temperature of the motor fuel was sixty degrees Fahrenheit. Any correction or adjustment required by this section shall be calculated on the basis of American Society for Testing and Materials (International) D1250-80, table 69.
4 Arkansas	Yes	Yes	Yes	Yes	Yes	
5 California	Yes	Yes	Yes	Yes	Yes	
6 Colorado	Yes	Yes	Yes	Yes	Yes	
7 Connecticut	Yes	No	No	No	No	The "no" answers represent the state's interpretation of NIST Handbook 44. <sup>1</sup> The state does not have a law or regulation prohibiting temperature compensation for these devices.
8 Delaware	Yes	Yes	Yes	Yes	Yes	
9 Washington, D.C.	Yes	Yes	Yes	Yes	Yes	

<sup>1</sup> NIST Handbook 44, 2007 Edition, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices" as adopted by the 91<sup>st</sup> National Conference on Weights and Measures in 2006.

	Jurisdiction	Is Temperature Compensation Permitted on:				Law, Regulation or Comment
		Wholesale Meters (e.g., loading rack meters)	Vehicle Tank Meters (e.g., home heating fuel)	Engine Fuel Dispensers - High Speed (e.g., truck refueling)	Engine Fuel Dispensers - Other (e.g., retail service stations)	
10	Florida	*	*	*	*	*Temperature compensation for these methods of sale, except for wholesale meters, is neither specified in the NIST Handbooks from which FL adopts its regulations for these devices nor in state laws or rules. There are no court or administrative cases that we are aware of that have concluded or interpreted Florida Law regarding the permissiveness of this issue. The Florida Department of Agriculture and Consumer Services adopts by reference in rule the Uniform Method of Sale Regulation found in the NIST Handbook 130, and the requirements for weighing and measuring devices found in NIST Handbook 44. Specifically, NIST Handbook 44 recognizes the temperature compensated measurement of petroleum products through wholesale meters, which is therefore allowed in Florida through adoption of this Handbook. However, there are no specific provisions in this Handbook for the temperature compensated methods of sale of petroleum products through vehicle tank meters (other than LP gas), high speed engine fuel dispensers and service station dispensers; nor is temperature compensation recognized for such devices. While such temperature compensated methods of sale are not recognized in this Handbook, neither are there any state laws or regulations specifically prohibiting the temperature compensated methods of sale of petroleum products through such devices.
11	Georgia	Yes	Yes	Yes	Yes	State Law §Title 4-7 Chapter 86 defines petroleum products at 60 °F (15 °C) and devices are adjusted through automatic and other means to deliver a gallon at that temperature.
12	Hawaii	Yes	Yes	Yes	Yes	
13	Idaho	Yes	Yes	Yes	Yes	TITLE 71, WEIGHTS AND MEASURES, CHAPTER 2, STANDARDS 71-241. PETROLEUM PRODUCTS -- HOW SOLD -- MEASUREMENT. (1) All petroleum products shall be sold by liquid measure or by net weight in accordance with the provisions of section 71-232, Idaho Code, and in accordance with regulations to be made by the director. (2) Sellers of motor fuel within this state shall offer to prospective purchasers the option to buy the product either

Jurisdiction	Is Temperature Compensation Permitted on:				Law, Regulation or Comment
	Wholesale Tank Meters (e.g., loading rack meters)	Vehicle Tank Meters (e.g., home heating fuel)	Engine Fuel Dispensers – High Speed (e.g., truck refueling)	Engine Fuel Dispensers – Other (e.g., retail service stations)	
14 Illinois	Yes	Yes	Yes	Yes	by gross gallons or on the assumption that the temperature of the product is sixty degrees (60°) Fahrenheit or the centigrade equivalent. This purchaser option may be exercised only on an annual basis and applied only to single deliveries of eight thousand (8,000) gallons or more or the metric equivalent. Any adjustments to volumes during the temperature compensation process shall be made in accordance with the standards set by the American Society of Testing Materials. (3) The department of agriculture may purchase and use measuring devices for monitoring bulk deliveries. Measuring devices must have a Certificate of Conformance from the National Type Evaluation Program The "no" answers represent the State's interpretation of NIST Handbook 44. <sup>2</sup> Indiana does not have a law or regulation prohibiting temperature compensation for these devices. 21--\$5.49(214A,215) Gallonage determination for retail sales. The method of determining gallonage on gasoline or diesel motor vehicle fuel for retail sale shall be on a gross volume basis. Temperature correction or any deliberate methods of heating shall be prohibited. This rule is intended to implement Iowa Code sections 214A.3 and 215.18. 214A.3 ADVERTISING: 1. For all motor fuel, a person shall not knowingly do any of the following: a. Advertise the sale of any motor fuel which does not meet the standards provided in section 214A.2. b. Falsely advertise the quality or kind of any motor fuel or a component of motor fuel. c. Add a coloring matter to the motor fuel which misleads a person who
15 Indiana	No	No	No	No	
16 Iowa	No	No	No	No	

<sup>2</sup> NIST Handbook 44, 2007 Edition, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices" as adopted by the 91<sup>st</sup> National Conference on Weights and Measures in 2006.

Jurisdiction	Is Temperature Compensation Permitted on:	Law, Regulation or Comment
	Wholesale Meters (e.g., loading rack meters)	
	Vehicle Tank Meters (e.g., home heating fuel)	
	Engine Fuel Dispensers – High Speed (e.g., truck refueling)	
	Engine Fuel Dispensers – Other (e.g., retail service stations)	
		<p>is purchasing the motor fuel about the quality of the motor fuel.</p> <p>2. For a renewable fuel, all of the following apply:</p> <p>a. A person shall not knowingly falsely advertise that a motor fuel is a renewable fuel or is not a renewable fuel</p> <p>b. (1) Ethanol blended gasoline sold by a dealer shall be designated E-xx where "xx" is the volume percent of ethanol in the ethanol blended gasoline. However, a person advertising E-10 gasoline may only designate it as ethanol blended gasoline. A person shall not knowingly falsely advertise ethanol blended gasoline by using an inaccurate designation in violation of this subparagraph.</p> <p>(2) Biodiesel blended fuel shall be designated B-xx where "xx" is the volume percent of biodiesel in the biodiesel blended fuel. A person shall not knowingly falsely advertise biodiesel blended fuel by using an inaccurate designation in violation of this subparagraph.</p> <p>[C31, 35, § 5095-43; C39, § 5095-03; C46, 50, 54, 58, 62, 66, 71, § 323.3; C73, 75, 77, 79, 81, § 214A.3] 89 Acts, ch 75, § 3; 2006 Acts, ch 1142, §10</p> <p>215.18 SPECIFICATIONS AND TOLERANCES. The specifications, tolerances, and other technical requirements for commercial, law enforcement, data gathering, and other weighing and measuring devices, as adopted by the national conference on weights and measures and published in the national institute of standards and technology handbook 44, specifications, tolerances, and other technical requirements for weighing and measuring devices, shall apply to weighing and measuring devices in this state, except insofar as modified or rejected by rule and shall be observed in all inspections and tests. [C50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 215.18] 90 Acts, ch 1084, § 8</p>

Jurisdiction	Is Temperature Compensation Permitted on:				Law, Regulation or Comment
	Wholesale Meters (e.g., loading rack meters)	Vehicle Tank Meters (e.g., home heating fuel)	Engine Fuel Dispensers - High Speed (e.g., truck refueling)	Engine Fuel Dispensers - Other (e.g., retail service stations)	
17 Kansas	Yes	Yes	Yes	Yes	<p>Referred to in § 215A.3</p> <p>The following is specific for LPG but is not limited.                      215.20 Liquid petroleum gas measurement.                      1. All liquefied petroleum gas, including but not limited to propane, butane, and mixtures of them, shall be kept, offered, expressed for sale, or sold by the pound, metered cubic foot of vapor, defined as one cubic foot at sixty degrees Fahrenheit, or by the gallon, defined as two hundred thirty-one cubic inches at sixty degrees Fahrenheit.                      2. All metered sales exceeding one hundred gallons shall be corrected to a temperature of sixty degrees Fahrenheit through use of an approved meter with a sealed automatic compensation mechanism. All sale tickets for sales exceeding one hundred gallons shall show the stamped delivered gallons and shall state that the temperature correction was automatically made.                      3. A reasonable tolerance within a maximum of plus or minus one percent shall be allowed on liquid petroleum gas meters licensed for commercial use in this state.                      [C66, 71, 73, 75, 77, 79, 81, §215.20]                      88 Acts, ch 1272, §23; 90 Acts, ch 1084, §9</p>
18 Kentucky	Yes*	Yes*	Yes*	Yes*	
19 Louisiana	Yes	Yes	Yes	Yes	

Jurisdiction	Is Temperature Compensation Permitted on:	Law, Regulation or Comment	
	Wholesale Meters (e.g., loading rack meters)	<p><b>required</b></p> <p>A. As used in this Section, the following words and phrases shall have the meaning hereinafter ascribed to them: (1) "Gross gallons" are those gallons that have not been temperature adjusted. (2) "Net gallons" are those gallons that have been temperature adjusted to sixty degrees Fahrenheit. (3) "Petroleum product bulk sale" means a single sale of at least seven thousand gross gallons of a petroleum product made at a single place and time other than those sales made on a consignment basis. (4) "Petroleum jobber" means any person, firm, corporation or association of persons: (a) Who is a distributor or wholesaler of a petroleum product or who is the immediate or middleman between the refiner and the retail dealer, the consumer, or another jobber; and (b) Whose principle business is buying petroleum products for resale to retail dealers, consumers, or other jobbers. (5) "Refiner" means any person engaged in the refining of crude oil to produce petroleum products and includes any affiliate of such person.</p> <p>(6) "Retailer" is as defined in R.S. 51:42(A).</p> <p>B. (1) Any refiner making a petroleum bulk sale of petroleum products to any retailer or petroleum jobber shall make the sale on a temperature adjusted volume basis of net gallons. The net gallons adjustment shall be made in accordance with "API/ASTM-IP Petroleum Measurement Table 6B" of the 1980 American Petroleum Institute's Manual of Petroleum Measurement Standards. (2) The refiner shall provide the retailer or petroleum jobber with a receipt, invoice, or meter ticket specifying the petroleum product received and the following information: (a) The gross gallons received. (b) The temperature at the time of loading. (c) The API gravity. (d) The net gallons purchased.</p> <p>C. A retailer or petroleum jobber may bring a civil action against a refiner who violates a provision of Subsection B of this Section. The action may be</p>	
	Vehicle Tank Meters (e.g., home heating fuel)		
	Engine Fuel Dispensers - High Speed (e.g., truck refueling)		
	Engine Fuel Dispensers - Other (e.g., retail service stations)		

Jurisdiction	Is Temperature Compensation Permitted on:				Law, Regulation or Comment
	Wholesale Meters (e.g., loading rack meters)	Vehicle Tank Meters (e.g., home heating fuel)	Engine Fuel Dispensers – High Speed (e.g., truck refueling)	Engine Fuel Dispensers – Other (e.g., retail service stations)	<p>brought, regardless of the amount in controversy, in the district court in any parish in which the refiner or the petroleum jobber or the retailer is doing business.</p> <p>D. In an action under this Section, the court shall grant equitable relief, that may include a declaratory judgment, any permanent injunctive relief, or any temporary injunctive relief, that the court determines is necessary to remedy the effects of the refiner violation.</p> <p>E. A retailer or petroleum jobber who prevails in an action brought under this Section shall be awarded the amount of actual damages and shall also be awarded court costs and reasonable attorney's fees in relation to the amount of work performed by the attorney.</p> <p>F. In addition to any other remedy or damages provided for in this Section, if the court determines that the refiner willfully and knowingly violated the provisions of Subsection B of this Section, the court may award three times the amount of actual damages to the prevailing retailer or petroleum jobber.</p>
20 Maine	Yes	Yes	Yes	Yes	<p>§2623. Method of sale</p> <p>1. Sales of commodities. Except as otherwise provided by the State Sealer, sales of commodities must comply with the following:</p> <p>A. Commodities in liquid form must be sold by liquid measure or by weight;</p> <p>B. Commodities not in liquid form must be sold only by weight, by measure or by count; and</p> <p>C. A seller selling commodities in liquid form and using temperature compensators must have the seller's entire fleet of vehicles equipped with temperature compensators or have prior approval by the State Sealer for regional use of temperature compensators, and must provide accurate and adequate quantity information that permits the buyer to make price and quantity comparisons. Such equipment must be sealed and in use</p>

Jurisdiction	Is Temperature Compensation Permitted on:				Law, Regulation or Comment
	Wholesale Meters (e.g., loading rack meters)	Vehicle Tank Meters (e.g., home heating fuel)	Engine Fuel Dispensers – High Speed (e.g., truck refueling)	Engine Fuel Dispensers – Other (e.g., retail service stations)	
21 Maryland	Yes	Yes	Yes	Yes	<p>throughout the year.</p> <p>§2624. Sale from bulk Whenever the quantity is determined by the seller, bulk sales, in excess of \$20 and all bulk deliveries of heating fuel shall be accompanied by a delivery ticket containing the following information: 1. Name and address. The name and address of the vendor and purchaser; 2. Date. The date delivered; 3. Quantity. The quantity delivered and the quantity upon which the price is based. If this differs from the delivered quantity, including when temperature-compensated sales are made, that fact must be stated.</p> <p>Prohibited based on a previous interpretation of MA's method of sale requirements by their State Attorney General.</p> <p>WEIGHTS AND MEASURES ACT 283 of 1964</p> <p>239.79 PETROLEUM PRODUCTS; TRANSACTION REQUIREMENTS. Subdivision. 4. Sale of certain petroleum products on gross volume basis. A person responsible for the products listed in this subdivision shall transfer, ship, distribute, offer for distribution, sell, or offer to sell the products by volume. Volumetric measurement of the product must not be temperature compensated, or adjusted by any other factor. This subdivision applies to gasoline, number one and number two diesel fuel oils, number one and number two heating fuel oils, kerosene, denatured ethanol, and biodiesel. This subdivision does not apply to the measurement of petroleum products transferred, sold, or traded between refineries, between refineries and terminals, or between terminals.</p> <p>Measuring devices must have a Certificate of Conformance from the National Type Evaluation Program</p> <p>30-12-409. Sale of gasoline and distillates on other than gross volume basis unlawful -- exception. (1) Except as provided in subsection (2) or in Title 82,</p>
22 Massachusetts	No	No	No	No	
23 Michigan	Yes	No	No	No	
24 Minnesota	No	No	No	No	
25 Mississippi	Yes	Yes	Yes	Yes	
26 Missouri	Yes	Yes	Yes	Yes	
27 Montana	Yes	No	No	No	

Jurisdiction	Is Temperature Compensation Permitted on:				Law, Regulation or Comment
	Wholesale Meters (e.g., loading rack meters)	Vehicle Tank Meters (e.g., home heating fuel)	Engine Fuel Dispensers – High Speed (e.g., truck refueling)	Engine Fuel Dispensers – Other (e.g., retail service stations)	
28 Nebraska	Yes	No	No	No	<p>chapter 15, part 1, the sale, barter, or exchange of gasoline and distillates on a temperature corrected basis or on any basis other than the gross volume of gasoline or distillate actually delivered is void. Any contract in violation of this section shall be unenforceable to the extent of the violation. (2) Suppliers of gasoline and distillates shall offer Montana petroleum wholesale distributors the option to buy gasoline and distillates either by gross volume actually delivered or on the assumption that the temperature of the product is 60 degrees Fahrenheit or the centigrade equivalent. This purchaser option may be exercised only on an annual basis and may be applied only to single deliveries of 7,500 gallons or more or the metric equivalent. Any adjustments to volume during the temperature compensation process must be made in accordance with standards set under 82-15-103, 82-15-108, and 82-15-109. Purchasers who choose to exercise the option available under this subsection must be provided with invoice listings of both net and gross gallons. (3) This section does not apply to the exchange or transfer of gasoline and distillates between refiners or transporters of petroleum or petroleum products.</p> <p>Nebraska's tax law requires the reporting of sale in gross gallons. Since the beginning of the petroleum industry, the customary trade practice for selling refined products has been based on gross gallons at retail. Nebraska's laws lack specific language prohibiting the sale of refined fuels by temperature compensation. Nebraska's position is that the sale by mean of temperature compensation is not a recognized customary trade practice and would not provide the consumer with ability to make price and quantity comparisons between retailers selling based on gross gallons. Nebraska stated that until such time as the method of sale of commodity regulation recognizes temperature compensation at retail the customary trade practices for over 90 years, is the law. Nebraska responded that it would act to prohibit a retailer wanting to sell temperature compensation until the statutes are changed by the legislature (See NIST HB 130 Uniform Weights and Measures Law, Section 17, regarding Method of Sale.)</p>

Jurisdiction	Is Temperature Compensation Permitted on:				Law, Regulation or Comment
	Wholesale Meters (e.g., loading rack meters)	Vehicle Tank Meters (e.g., home heating fuel)	Engine Fuel Dispensers – High Speed (e.g., truck refueling)	Engine Fuel Dispensers – Other (e.g., retail service stations)	
29 Nevada	Yes	Yes	Yes	Yes	<p>Measuring devices must have a Certificate of Conformance from the National Type Evaluation Program</p> <p>New Jersey does not have any statutory law requiring the temperature compensation of refined petroleum products, which are sold by meters, installed on racks at the Petroleum Terminals, Vehicle Tank Meters and Fuel Dispensing meters, located at Service Stations. However, this Office has formally adopted the provisions of the National Institute of Standards and Technology Handbook 44, hereinafter NIST Handbook 44, which prescribes the specifications, tolerances and other technical requirements for all types of commercial weighing and measuring devices. As you know, NIST Handbook 44, Section 3.30, §2.7.1 permits the use of automatic temperature compensators on Wholesale Devices and Section 3.30, UR 3.6 prescribes the requirements for the use of automatic temperature compensators. N.J.S.A. 51-9-4 requires that if the volume of petroleum products is calculated from the weight of petroleum products and for temperature corrections, the National Standard Petroleum Oil Tables, as approved by the United States Bureau of Standards (NIST) shall be used. Though Liquefied Petroleum Gas is not included in your email, we want to advise you that N.J.S.A. 51-10-8 prohibits the use of artificial heat for the purpose of expanding Liquefied Petroleum Gas before or during the process of delivery, when the basis of settlement for such sale or delivery is liquid volume. NIST Handbook 44, Section 3.52, §2.6, permits the devices, used for metering Liquefied Petroleum Gas, to be equipped with automatic temperature compensators and Section 3.52, UR 2.4 prescribes the requirements for the use of automatic temperature compensators for these devices.</p>
30 New Hampshire	Yes	Yes	Yes	Yes	
31 New Jersey	Yes	Yes	Yes	Yes	
32 New Mexico	Yes	Yes	Yes	Yes	<p>Agriculture and Markets Law Section 192: Sale and delivery of petroleum products I. No device shall be used for the purpose of dispensing and measuring petroleum products unless the owner of such device has complied</p>
33 New York	Yes	No	No	No	

Jurisdiction	Is Temperature Compensation Permitted on:				Law, Regulation or Comment
	Wholesale Meters (e.g., loading rack meters)	Vehicle Tank Meters (e.g., home heating fuel)	Engine Fuel Dispensers – High Speed (e.g., truck refueling)	Engine Fuel Dispensers – Other (e.g., retail service stations)	
34 North Carolina	Yes	Yes	Yes	Yes	with section one hundred eighty-two of this article. 2. a. Devices equipped with automatic temperature compensation shall be used only if the device is used exclusively for wholesale transactions. b. Automatic and non-automatic temperature compensation shall not be applied to retail sales of petroleum products.
35 North Dakota	Yes	Yes	Yes	Yes	
36 Ohio	Yes	Yes	No	No	
37 Oklahoma	Yes	Yes	Yes	Yes	
38 Oregon	Yes	Yes	Yes	Yes	<p>The "no" answers represent the state's interpretation of NIST Handbook #4<sup>3</sup> for these dispensers.</p> <p>Oregon Administrative Rule 605-027-0400: Liquid Fuels                      (1) As used in this rule, "liquid fuel" means any predominantly hydrocarbon compound or mixture for use as engine or heating fuel that exists as a noncorrosive liquid at atmospheric pressure, including, but not limited to, gasoline, tractor fuel, kerosene, jet fuel, diesel, and heating oil.                      (2) Method of Sale: Liquid fuel shall be sold by weight or liquid measure determined from legal devices as provided in ORS 618.121 and ORS 618.141.                      Use of tank gauging methods that include sticks, rods, markers, or other volume-measuring elements not permanently attached or sealed to such tanks is prohibited for purposes of product sale or transfer of ownership for tanks or tank compartments with capacities of 10,500 gallons (250 Bbl.) or less.                      (3) Declaration of Quantity: Liquid Measure. Quantity declarations or representations in terms of liquid measure shall for wholesale transactions or deliveries indicate the volume occupied by the products at 60°F consistent with Petroleum Measurement Tables (ASTM D-1250-80) (1990) (API MPMS</p>

<sup>3</sup> NIST Handbook 44, 2007 Edition, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices" as adopted by the 91<sup>st</sup> National Conference on Weights and Measures in 2006.

Jurisdiction	Is Temperature Compensation Permitted on:				Law, Regulation or Comment
	Wholesale Meters (e.g., loading rack meters)	Vehicle Tank Meters (e.g., home heating fuel)	Engine Fuel Dispensers – High Speed (e.g., truck refueling)	Engine Fuel Dispensers – Other (e.g., retail service stations)	
39 Pennsylvania	Yes	Yes	No	No	Ch. 11.1 published by the American Society for Testing Materials, unless the measuring device and any associated bill of lading, delivery ticket, or invoice are clearly marked to indicate that: (a) The volume is based on a specified product temperature other than 60°F; or (b) The quantity declaration or representation is "not corrected to 60°F," or is otherwise qualified by language of similar import. (4) Advertising and Computing Unit Price. Whenever a liquid fuel is sold at retail by means of a computing-type device and a unit price for such fuel is advertised, posted, or displayed by the seller, the unit price at which the device is (or devices are; if more than one dispense such brand, blend, or mixture) set to compute at, shall coincide exactly with the advertised, posted, or displayed unit price for such fuel. §.33.1.1. Method of sale—temperature compensations. Whenever home heating oil is either sold or delivered to a domestic consumer by the use of an approved meter equipped with an automatic temperature compensator, the volume shall be in terms of the United States gallon of 231 cubic inches or the liter with the volume expressed at 60°F (15.6°C). For individual deliveries in excess of 1,000 gallons, temperature compensation may be accomplished by the use of "Table 6" of the American Edition of the American Society of Testing Materials—IP, Petroleum, Measurement Tables.
40 Rhode Island	Yes	Yes	Yes	Yes	
41 South Carolina	Yes	Yes	Yes	Yes	
42 South Dakota	No, (with exceptions for LPG, and Fuels Numbered 4, 5 & 6)	No, (with exceptions for LPG, and Fuels Numbered 4, 5 & 6)	No	No	SDCL 37-2-25. Sale of certain petroleum products on other than gross volume basis unlawful. The sale of gasoline or other middle distillate petroleum products, not including liquefied petroleum gases or petroleum fuels commercially known as number four, number five and number six, on a temperature adjusted or any basis other than gross volume, is unlawful.
43 Tennessee	Yes	No	No	No	Tennessee requires all devices be NTEP approved and meet Handbook 44 requirements. It is our (Tennessee's) understanding that there currently are no NTEP approved devices that have temperature compensation capabilities

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	Wholesale Meters (e.g., loading rack meters)	Vehicle Tank Meters (e.g., home heating fuel)	Engine Fuel Dispensers – High Speed (e.g., truck refueling)	Engine Fuel Dispensers – Other (e.g., retail service stations)	
44 Texas	Yes	Yes	Yes	Yes	currently in production for vehicle tank meters, and fuel dispensers and this may be due to lack of Handbook 44 requirements or specifications for these devices. So the answer would be we do not allow temperature compensation at this time at the vehicle tank or retail fuel meter levels. Texas permits temperature compensation on liquefied petroleum gas meters. Texas Weights/Measures Statutes and Rules do not include any reference to temperature compensation at either retail or wholesale, the State is silent on the issue. The department adopts NIST Handbook 44 by reference.
45 Utah	Yes	Yes	Yes	Yes	Vermont W&M Law states: "... such liquid volume shall be computed, expressed in terms of the gallon."
46 Vermont	Yes	No	No	No	Vermont notes that a gallon is 231 cubic inches as defined by law, a measure of capacity. Not a hypothetical gallon that varies as a function of temperature. Vermont is basing this on the Massachusetts Attorney General's decision where the AG stated that [weights and measures does] not have the authority to change the long standing customary method of sale; that would come under the authority of the legislature.
47 Virginia	Yes	No	No	No	I am not aware of any Virginia Laws that regulate temperature compensation. It is required for liquid petroleum gas, consistent with the NIST HB 44 requirements and NIST HB 130' Method of Sale requirements. All of the requirements related to Temperature Compensation are in NIST Handbook 44 and the Method of Sale Regulation in NIST HB 130 both of which Virginia adopts by reference. Wholesale - permitted provided it is done for a twelve month period. For Vehicle tank meters, high speed dispensers used for fueling trucks and service station dispensers temperature compensation is not permitted. It is not permitted in these applications because of the absence of a

<sup>4</sup> NIST Handbook 130, 2006 Edition, "Uniform Laws and Regulations in the areas of Legal Metrology and Engine Fuel Quality" as adopted by the 90<sup>th</sup> National Conference on Weights and Measures in 2005.

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	Wholesale Meters (e.g., loading rack meters)	Vehicle Tank Meters (e.g., home heating fuel)	Engine Fuel Dispensers – High Speed (e.g., truck refueling)	Engine Fuel Dispensers – Other (e.g., retail service stations)	
48 Washington	Yes	Yes	Yes	Yes	HB 130 requirements followed by a test method in HB 44. Further, we have not had any support from Virginia industry supporting temperature compensation in fact the only documented comments we have received is in opposition at the truck-stop and retail level. Measuring devices must have a Certificate of Conformance from the National Type Evaluation Program. Measuring devices must have a Certificate of Conformance from the National Type Evaluation Program. 98 246 Petroleum product sales (1) In this section, "petroleum products" has the meaning given under s. 168.03 (2) Petroleum products may not be sold from a terminal or storage facility in this state on any basis other than gross volume without correction for temperature. Measuring devices must have a Certificate of Conformance from the National Type Evaluation Program. 40 10 127. Sale of gasoline and distillates on other than gross volume basis unlawful, exception, "sale" defined. (a) Except as provided in subsection (b) of this section, the sale of gasoline and distillates, excluding liquefied petroleum gas, on a temperature corrected basis or on any basis other than the gross volume of gasoline or distillate actually delivered is unlawful. Any contract in violation of this section shall be unenforceable to the extent of the violation. (b) Sellers of motor fuel within this state shall offer to prospective purchasers the option to buy the product either by gross gallons or on the assumption that the temperature of the product is sixty degrees Fahrenheit (60 ° F) or the centigrade equivalent. This purchaser option may be exercised only on an annual basis and applied only to single deliveries of seven thousand five hundred (7,500) gallons or more or the metric equivalent. Any adjustments to volumes during the temperature compensation process shall be made in
49 West Virginia	Yes	Yes	Yes	Yes	
50 Wisconsin	No	Yes	Yes	Yes	
51 Wyoming	Yes	No	No	No	

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	Wholesale Meters (e.g., loading rack meters)				
	Vehicle Tank Meters (e.g., home heating fuel)				
	Engine Fuel Dispensers – High Speed (e.g., truck refueling)				
	Engine Fuel Dispensers – Other (e.g., retail service stations)				
<p>accordance with the standards set by the American Society of Testing Materials.</p> <p>(c) For purposes of this act, "sale" does not include the exchange of gasoline or distillate between refiners or transporters of petroleum or petroleum products.</p>					

	Jurisdiction	Survey Respondent
1	Alabama	<p><i>Wholesale, Vehicle-Tank Meters, High Speed Engine Fuel Dispensers</i>                      David Silvers for                      Randy Fulmer                      Program Director Heavy Weights &amp; Measures                      Alabama Dept. of Agriculture &amp; Industry                      PO Box 3336                      Montgomery, AL 36109-0336                      (334)240-7133                      rfulm1@ag.state.al.us</p> <p>and</p> <p><i>Other Engine Fuel Dispensers</i>                      Frank Gissendanner for                      Steadman Hollis                      Program Director Weights &amp; Measures Division                      Alabama Dept. of Agriculture &amp; Industry                      PO Box 3336                      Montgomery, AL 36109-0336                      (334)240-7130                      Steadman.Hollis@agi.alabama.gov</p>
2	Alaska	<p>Dan K. Bredden                      Alaska Division of Measurement Standards/CVE                      11900 Industry Way Bldg M                      Anchorage, Alaska 99515                      (907) 341-3210                      dan_breedse@dot.state.ak.us</p>
3	Arizona	<p>Shawn C. Marquez                      Compliance Supervisor                      Arizona Department of Weights &amp; Measures                      4425 West Olive Avenue, Suite 134                      Glendale, AZ 85302                      (623) 463-9940                      smarquez@azdwm.gov</p>
4	Arkansas	<p>Tom Pugh                      Director                      Arkansas Bureau of Standards                      4608 West 61st Street</p>

	Jurisdiction	Survey Respondent
5	California	Little Rock, AR 72209 (501)570-1159 tom.pugh@aspb.ar.gov Demis Johannes Director CA Div of Measurement Standards 6790 Florin Perkins Road #100 Sacramento, California 95828-1812 (916) 229-3000 D.Johannes@ceffa.ca.gov
6	Colorado	Mahesh Albuquerque, P.G. Petroleum Inspection Program Manager Division of Oil and Public Safety 633 17th Street, Suite 509 Denver, Colorado 80202 303-718-8533 Mahesh.Albuquerque@state.co.us
7	Connecticut	Frank Greene Director Connecticut Dept of Consumer Protection 165 Capitol Avenue Hartford, CT 06106 (860)713-6168 frank.greene@po.state.ct.us
8	Delaware	Steve Connors Administrator of Weights & Measures Delaware Department of Agriculture 2320 South Dupont Highway Dover, DE 19901 (302)698-4602 Steven.connors@state.de.us
9	Washington, D.C.	Jeffrey X. Mason Supervisory Code Compliance Inspector Office of Consumer Affairs Division, Weights and Measures Section 1110 U Street S.E. Washington, DC 20020 (202) 698-2130 jeffrey.mason@dc.gov
10	Florida	Matthew D. Curran, Ph.D. Chief, Bureau of Petroleum Inspection Florida Department of Agriculture and Consumer Services

	Jurisdiction	Survey Respondent
11	Georgia	<p>3125 Comer Blvd Tallahassee, Florida 32399-1650 (850) 488-9740 curraunm@doacs.state.fl.us</p> <p>Richard Lewis Director of Fuel &amp; Measures Division Georgia Department of Agriculture Agriculture Bldg. 19 MLK Drive, Rm 321 Atlanta, GA 30334 (404) 656-3605 rlewis@agr.state.ga.us</p>
12	Hawaii	<p>William Pierpont Manager Hawaii Measurement Standards 1831 Aukii Street Honolulu, HI 96819-3100 (808) 832-0694 william.e.pierpont@hawa</p>
13	Idaho	<p>Ton W. Schafer ISDA Bureau of Weights &amp; Measures PO Box 790 Boise, Idaho 83701 (208) 332-8690 tschafer@idahogov.us</p>
14	Illinois	<p>Jonelle Brent, Bureau Chief Illinois Department of Agriculture Bureau of Weights &amp; Measures P. O. Box 19281 Springfield, IL 62794-9281 217/785-8300 Jonelle.Brent@illinois.gov</p>
15	Indiana	<p>Lawrence J. Stump Indiana Weights &amp; Measures 2525 N Shadeland Avenue #D3 Indianapolis, Indiana 46219-1791 (317) 356-7078 lstump@isdh.in.gov</p>
16	Iowa	<p>Darryl Brown Bureau Chief Iowa Weights &amp; Measures Bureau Iowa Dept. of Agriculture &amp; Land Stewardship, 2230 S. Ankeny Blvd. Ankeny, IA 50021-9993</p>

	Jurisdiction	Survey Respondent
17	Kansas	(515)725-1492 darryl.brown@ldal.state.ia.us Jim Tyson Director Kansas Department of Agriculture/W&M Division PO Box 19982/Forbes Field Building 282 Topeka, KS 66619-0282 (785) 862-2415 Dyson@kds.state.ks.us
18	Kentucky	Tom Biemer Administrative Branch Manager Weights and Measures Branch Kentucky Department of Agriculture 107 Corporate Drive Frankfort, KY 40601 (502) 573-0282 tom.biemer@ky.gov
19	Louisiana	Richard W. Williams Agri Asst. Division Director Louisiana Dept. of Agriculture and Forestry P.O. Box 3998 Baton Rouge, LA 70821-3098 (225) 925-3780 richer_w@ldal.state.ia.us
20	Maine	Hal Prince Director Maine Quality Assurance and Regulations 28 State House Station Augusta, Maine 04333 207-287-2161 Hal.Prince@maine.gov
21	Maryland	Kenneth R. Ramsburg Program Manager Maryland Department of Agriculture 50 Harry S. Truman Parkway Annapolis, Maryland 21401 (410)841-5790 RamsbuKR@mda.state.md.us
22	Massachusetts	Charles Carroll Assistant Director Massachusetts Division of Standards One Ashburton Place, Room 1115

	Jurisdiction	Survey Respondent
23	Michigan	Boston, MA 02108 (617)727-3480, ext. 21131 Charles.Carroll@state.ma.us Michael Pinael Director Consumer Protection Section Michigan Department of Agriculture 940 Venture Lane Williamston, MI 48895-2451 (517)655-8202 ext 301 PinaelM@Michigan.gov
24	Minnesota	Mark Buccelli, Director Dept. of Commerce, Weights and Measures Division 1439 Southcross Drive, Suite 130 Burnsville, MN 55306 612-215-5821 Mark.Buccelli@state.mn.us
25	Mississippi	Robert Louys Division Director Mississippi Dept. of Agriculture & Commerce P.O. Box 1609 Jackson, MS 39215-1609 (601)339-1101 robert@mdac.state.ms.us
26	Missouri	Ronald G. Hayes Program Manager Missouri Department of Agriculture Fuel Quality Program PO Box 630 Jefferson City, MO 65102 573-751-2922 Ron.Hayes@mda.mo.gov
27	Montana	Jack Kane Deputy Administrator Montana Bureau of Building & Measurement Standards P.O. Box 200516 Helena, MT 59620-0516 (406)841-2240 jkane@mt.gov
28	Nebraska	Steven Malbone Director Nebraska Division of Weights & Measures 301 Centennial Mall South, Box 94757

	Jurisdiction	Survey Respondent
29	Nevada	Lincoln, NE 68509-4757 (402)471-4292 smalone@agrr.nv.gov Steven Grabski Administrator Department of Agriculture Division of Measurement Standards 2150 Frazer Ave Sparks, NV 89431 (775) 688-1166 X272 grabski@agri.state.nv.us
30	New Hampshire	Richard P. Cole, Director New Hampshire Division of Weights and Measures PO Box 2042 23 Capitol Street Concord, NH (603) 271-3700 rcole@agr.state.nh.us
31	New Jersey	Louis Greenleaf State Superintendent New Jersey Weights & Measures 1261 Routes 1 & 9 South Avenel, NJ 07001 Phone: (732)815-4842 louis.greenleaf@lps.state.nj.us
32	New Mexico	Michael R. Steffey Petroleum Standards Bureau Chief New Mexico Department of Agriculture Las Cruces, New Mexico MSteffey@mnda.nmsu.edu 505-646-1616
33	New York	Ross J. Andersen, Director New York State Department of Agriculture and Markets Bureau of Weights and Measures 10B Airline Drive Albany, NY 12235 (518) 457-3146 Ross.Andersen@agmkt.state.ny.us
34	North Carolina	Stephen Benjamin Director, Standards Division North Carolina Department of Agriculture

	Jurisdiction	Survey Respondent
35	North Dakota	<p>1050 Mail Service Center Raleigh, NC 27699-1050 (919)733-3313 steve.benjamin@ncmail.net</p> <p>Kevin Hanson Metrologist/Assistant Director North Dakota Public Service Commission 600 E. Boulevard State Capitol 12th Fl, Dept 408 Bismarck, ND 58505-9480 Phone: (701)328-2400 khanson@state.nd.state.us</p>
36	Ohio	<p>Jim Trues Chief, Division of Weights &amp; Measures and Amusement Ride Safety Ohio Department of Agriculture 8995 East Main Street Reynoldsburg, Ohio 43068 jtrues@mail.agri.state.oh.us</p>
37	Oklahoma	<p>Butch Jeffers Manager Compliance and Inspection Oklahoma Corporation Commission 2101 N Lincoln Blvd Oklahoma City, Oklahoma 73105 405-522-5265 Mailing address: PO Box 52000 Oklahoma City, Oklahoma 73152</p>
38	Oregon	<p>Russ Wyckoff Administrator Oregon Department of Agriculture 635 Capitol Street, N.E. Salem, OR 97301-2532 (503) 986-4767 rwyckoff@oda.state.or.us</p>
39	Pennsylvania	<p>Kenneth Deitzler Chief Bureau of Ride &amp; Measurement Standards 2301 North Cameron Street Harrisburg, PA 17110-9408 (717)787-9089 kdeitzler@state.pa.us</p>
40	Rhode Island	<p>John Shore</p>

	Jurisdiction	Survey Respondent
41	South Carolina	Director Rhode Department Labor and Training Weights and Measures 1511 Pontiac Ave #70 Cranston, Rhode Island 02920 401-462-8568
42	South Dakota	Director South Carolina Department of Agriculture Consumer Services Division PO Box 11280 Columbia, SC 29211 (803) 737-9690 cfinner@scdase.gov David Pfahler
43	Tennessee	Director South Dakota Weights and Measures 118 West Capitol Pierre, South Dakota 57501-2000 (605) 773-4091 david.pfahler@state.sd.us Charles E. (Ed) Coleman Petroleum Administrator Tennessee Department of Agriculture PO Box 40627 Metrose Station Nashville, TN 37204 (615) 837-5109 ed.coleman@state.tn.us
44	Texas	Joe Benavides Coordinator Weights & Measures Texas Department of Agriculture 1700 North Congress Avenue, Stephen F. Austin Building, 11th Floor Austin, TX 78701 (512) 463-7401 (512) 463-8225 joe.benavides@agr.state.tx.us
45	Utah	Greg Gittins Chief, Motor Fuel Laboratory Utah Department of Agriculture & Food P.O. Box 146500 Salt Lake City, UT 84114-6500 (801) 538-7154

Jurisdiction	Survey Respondent
	<p>for            Brett Gurney            Supervisor, Weights &amp; Measures Program            Utah Department of Agriculture &amp; Food            P.O. Box 146500            Salt Lake City, UT 84114-6500            (801)538-7158            (801)538-4949            bgurney@utah.gov</p>
46 Vermont	<p>Raymond Clift            Metrologist Weights &amp; Measures Specialist            Vermont Agency of Agriculture, Food &amp; Markets            103 South Main Street            Waterbury, VT 05671-0101            (802)244-4510            rayclift1@ahoos.com</p>
47 Virginia	<p>G. Westin Diggs            Virginia Department of Agriculture and Consumer Services Product &amp; Industry Standards            PO Box 1163            Richmond, Virginia 23218-1163            (804) 786-2476            Wes.Diggs@vdas.virginia.gov</p>
48 Washington	<p>Kirk Robinson            Program Manager            Washington Department of Agriculture            PO Box 42560            Olympia, WA 98504-2560            (360)902-1856            KRobinson@agr.wa.gov</p>
49 West Virginia	<p>John Jenkins, Director by            Dennis Harrison, Program Coordinator, Meters &amp; Fuel Quality            West Virginia Weights &amp; Measures, Division of Labor            570 McCorkle Avenue West            St. Albans, WV 25177            (304)722-0602            jjenkins@labor.state.wv.us or dharrison@labor.state.wv.us</p>
50 Wisconsin	<p>Judy Cardin            Chief, Regulation and Safety            Wisconsin Dept of Agriculture, Trade &amp; Consumer Protection            PO Box 8911</p>

	Jurisdiction	Survey Respondent
SI	Wyoming	<p>Madison, Wisconsin 53708-4911                      (608) 224-4945                      judy.casdin@datpn.state.wi.us</p> <p>Roy Raschenbach                      Supervisor                      Plant Industry &amp; Pesticide Coordinator                      2219 Carey Avenue                      Cheyenne, WY 82002-0100                      307.777.6590                      RRER@STATE.WY.US</p> <p>for</p> <p>Victor Cerber                      Supervisor Merologist                      Wyoming Department of Agriculture                      2219 Carey Avenue                      Cheyenne, WY 82002-0100                      (307)777-6586                      vcerbe@state.wy.us</p>

Ms. WATSON. Yeah. It is our responsibility here to look at these issues and try to clarify them and try to discuss them and come forward with policy. So those of you who are willing to come—as the Chair said, we couldn't get representatives of the oil companies to show their faces here, so we ask you if you can assist us in providing an honest report for us. And of course our staff can do some of this research as well, Mr. Chairman. But I think we all ought to come out with a report that can go public and probably get into some policy.

Thank you so much, and I yield back my time.

Mr. KUCINICH. I would agree with the gentlelady. I just want the members of the committee to know that, based on the questions that have arisen from this discussion, we will once again invite people from the oil industry to come before this committee and to answer questions relative to the practice of having temperature control devices measuring the amount of gasoline that people are paying for in Canada and—as opposed to not having those devices in the United States—and to determine what the role of the industry has been in frustrating the honest measurement of the amount of energy that people are paying for in their tank. We really need to—I mean, I would just want to respond to the gentlelady's request to say that I think the committee needs to look deeper into this, because the gentlelady raises some very serious questions.

Mr. Cummings.

Ms. WATSON. Just a moment. Would you yield for just a second? I want to followup with that.

Mr. KUCINICH. Yes, of course.

Ms. WATSON. At this same time, could we just bifurcate it and have a discussion of the refineries, too?

Mr. KUCINICH. I think that's appropriate.

Ms. WATSON. Thank you.

Mr. CUMMINGS. I want to thank the gentleman for yielding.

Mr. Chairman, I just want to say something very briefly while the panel is up here. You know, as I was sitting here I was thinking to myself, you know, sometimes these kinds of things, these kinds of hearings are held and people find it so incredible that they find it unbelievable. People have a tendency to say, well, wait a minute now. If that is happening, there must be something that I am missing, because it seems as if they would have addressed this by now.

That is why I was so pointed, Mr. Cleary, with you. I wasn't trying to be smart, but I am very serious. I think the American people, they start looking at things, and they become very cynical. And I am so afraid, I don't want this to go down the cynical path and then—and people just say, "Well, you know, it is just so incredible it is unbelievable."

What I would point out, Mr. Chairman, is all they need to do is look at the profits of these oil companies and look at the fact that this same methodology is being used in Canada and look at the fact that you can buy some gas in a cold month and buy the same amount of gas in a hot month and you will get less for—am I right, Mr. Seibert? You will get less energy for the same—when the thing says five gallons, less energy than if you bought it in a cold month.

Am I right? Is that it? I am just trying to break it down so that people understand this is—you know, this is very, very serious.

My constituents are complaining every day. I go to the gas pump, and I stand there, and I talk to them, and they are saying, Cummings, we like you, you are a good guy, but, you know, I mean, you got to do something about this. So it just seems as if this is one of the many things that we need to be looking at and looking at very seriously.

With that, I yield back.

Mr. KUCINICH. The gentleman raises a point, and that is why in the world would they have these devices in Canada that adjust for the temperature so that the consumers in Canada aren't being cheated and yet in the United States, based on this committee report, in one period alone, the summer of 2007, consumers in the United States will pay \$1.5 billion for gasoline they are not getting?

Now the committee has not extrapolated that over the period that the industry has been taking advantage of this hot fuel, but this—we are talking about a tremendous amount of money. And when you take that down to the level of the individual consumer, it really does matter. It really does matter if people are paying a dollar more per tank or \$3 more per tank for energy they are just not getting. I mean, this is what it comes down to. This matters to family budgets.

So the interests of this panel is serious enough that I am just going to recommend we will go to a 3-minute round here for one more round for the first panel, and I would like to ask Mr. Gafinowitz just a couple more questions.

In a letter that you wrote to Senator Boxer on March 14, 2007, you stated, "There is concern among our customers and their trade groups that the use of automatic temperature control on an optional basis will lead to confusion in retail pricing in the marketing of gasoline and would increase the cost of operations, while net benefits to the consumers are more dubious."

To your knowledge, on what basis does Canada use the automatic temperature control devices? Is it voluntary or mandatory?

Mr. GAFINOWITZ. I believe it is voluntary.

Mr. KUCINICH. And has the fact of voluntary use of the automatic temperature control devices caused confusion in retail pricing and marketing of gasoline? Are you aware of any industry concern which has demonstrated such confusion?

Mr. GAFINOWITZ. I am not sure exactly how it has worked, but I think it is working quite effectively in Canada.

Mr. KUCINICH. And so isn't that argument that is being used to try to defeat it kind of a red herring?

Mr. GAFINOWITZ. I think that argument has been published fairly widely, and I am clearly not the best placed person to comment on that argument.

Mr. KUCINICH. I understand.

Mr. GAFINOWITZ. But there are a number of arguments on this, including whether the cost will really deliver benefit to the consumers.

Mr. KUCINICH. As to the question whether the net benefits to the consumer are more dubious, are you aware of a survey of actual

gasoline temperatures taken in every State except North Dakota and South Dakota?

Mr. GAFINOWITZ. Yes, I am aware.

Mr. KUCINICH. And this would have been data collected as part of the EPA's enforcement of leaking underground storage tanks?

Mr. GAFINOWITZ. Yes.

Mr. KUCINICH. And why are you aware of that? How do you know that?

Mr. GAFINOWITZ. Well, the data was actually collected from one of the companies in our group as part of some research project we were doing.

Mr. KUCINICH. And what were the circumstances for the collection of those gasoline temperatures? Does Veeder-Root still collect gasoline temperatures?

Mr. GAFINOWITZ. I am not sure whether we collect them on a systematic basis. I can confirm them at a later stage. We were collecting them at that point on a systematic basis as part of a product development we were doing for underground storage tank monitoring devices.

Mr. KUCINICH. Would you be able to provide any of that information to the subcommittee?

Mr. GAFINOWITZ. Yes, we would.

Mr. KUCINICH. We would appreciate that.

[The information referred to follows:]

### Average Temperature

State	July-06	August-06	September-06	October-06	November-06	December-06	January-07	February-07	March-07	April-07	May-07	June-07
AK	56.57095	56.28268	54.17491375	49.038279	37.98306897	31.72209275	30.639484	31.0325982	27.40341	32.7061	40.43988	48.88514
AL	84.01713	85.16638	83.5904083	78.234074	70.24026931	65.19981476	62.862506	58.8593878	64.04217	68.1983	74.40229	80.49767
AR	83.38724	85.38318	83.42641343	77.733149	69.6117837	63.62617199	59.286523	55.6778985	61.44925	65.73001	71.38888	77.20382
AZ	96.37837	96.29763	94.26142003	87.744334	78.97306844	70.88107254	65.800691	66.4659083	70.27263	76.83038	84.02994	90.34544
CA	82.65729	81.38865	80.21563793	76.090614	73.03307427	67.07417111	63.634391	64.9200835	67.31188	69.19573	72.50226	75.60226
CO	76.8628	76.23227	71.28964396	64.948155	57.57940735	50.47635413	44.54837	44.5590213	50.37573	54.35887	60.99012	67.78062
CT	72.01869	73.5371	69.0549653	63.531159	57.56396724	52.36361301	48.137385	40.8200157	42.85492	48.53945	57.82398	65.48435
DC	75.82303	78.10807	74.85582564	69.496301	63.51556028	58.50834914	55.64988	49.0246956	51.84937	57.12085	64.11499	71.09224
DE	77.89814	79.55277	73.82662684	67.274275	60.7046681	55.06105609	51.567517	43.5903457	47.93264	53.79746	63.6686	71.88537
FL	85.77352	87.072	86.58927548	85.279856	81.03433453	78.55458125	77.164203	74.3281871	76.32345	78.2065	81.23534	83.44626
GA	85.00914	85.82761	84.12774798	78.880962	71.07239198	67.12352773	64.981416	61.3371865	66.17042	70.0034	75.97726	81.83993
HI	85.07761	85.73668	86.00420484	85.75339	85.18568693	84.58117457	83.481662	82.5134363	82.69724	83.09284	83.86782	84.92238
IA	69.62866	71.08985	68.44055831	63.270938	55.88533593	50.27885782	46.398891	39.9001542	43.42572	49.04072	56.67827	63.33332
ID	75.20443	75.3563	71.76929437	63.392561	55.69672974	47.27836752	41.554739	41.5764652	46.80152	51.42933	60.01741	67.61416
IL	71.84796	73.18549	69.73892497	62.807213	55.77905929	49.32541643	46.239578	38.6026102	43.94455	50.05972	58.9379	66.59586
IN	72.7354	74.05077	70.55805581	63.760571	56.76795724	51.23749757	47.810049	40.3907072	45.77024	51.44423	60.40738	68.59307
KS	78.72504	80.17736	76.55944946	69.896492	62.56016576	55.30441256	49.806355	44.4936133	51.52274	56.23698	64.29103	70.29015
KY	73.68854	76.31145	73.62449223	67.864564	60.94932508	56.2769951	53.551037	46.6042447	51.23188	56.78955	64.07074	71.46718
LA	87.89341	88.54372	87.36949728	83.141896	75.21239853	69.35127875	67.006823	64.305264	70.72051	74.10193	79.32585	84.05491
MA	71.24088	72.3865	68.43185895	62.876106	57.33088766	51.78789756	46.911786	40.1038679	42.51945	47.39408	56.71569	64.1166
MD	76.76186	78.57479	74.18878548	67.927378	61.30061178	55.88095092	52.850293	45.4762954	49.55247	54.99613	63.69457	71.73261
ME	70.24143	70.3417	68.59138761	62.145862	55.06589306	48.051057	41.990239	35.2165356	38.56151	44.62007	53.11283	61.4604
MI	69.59141	71.11078	67.23946119	60.247564	53.77785016	48.9710884	45.451026	39.1473121	42.0709	47.48567	56.09162	64.34831
MN	70.51726	71.36388	67.13838503	59.184955	50.97684134	43.64688056	39.728248	33.3884745	37.17959	43.90969	55.02871	63.04783
MO	77.84721	79.48414	75.89909373	69.113435	60.95680157	54.57243557	51.446548	45.1399875	51.73624	57.0824	65.39034	71.15948
MS	86.23526	88.98318	86.76010893	81.153555	72.3993734	67.36721005	65.134276	61.6683442	67.95641	72.20131	78.63888	82.66884
NC	80.86436	82.29862	79.97682029	74.702065	67.85248879	63.07081617	60.4971	55.9369275	59.95534	64.50668	70.20675	76.00363
NE	73.65186	74.57928	71.80772705	64.857916	57.05192472	49.11589429	44.08448	38.2732494	43.90702	51.03642	60.71856	67.45771
NH	71.40218	72.20756	68.06394834	61.677808	56.11476422	50.47728486	44.79142	37.6818981	40.71403	48.02548	55.90955	63.69311
NJ	75.49254	77.039	71.6594354	65.672905	59.28447774	54.06815496	50.071742	41.5735537	45.58974	51.47675	61.41182	69.91582
NM	84.09577	81.63426	77.72938774	72.72458	65.40404334	57.04535858	51.849375	52.2932435	58.28097	62.79839	68.38367	75.90374
NV	91.21025	91.57259	88.4979412	79.501548	72.48061289	64.42014997	59.979588	61.407669	65.70866	71.72602	77.87816	82.43422
NY	74.91023	76.41532	71.49108387	65.588085	59.14393954	53.76521186	49.453741	41.6795366	44.7119	50.45549	60.52738	69.52141
OH	70.86366	72.89944	69.8140343	63.544519	56.68529228	51.91344078	48.637034	40.9073845	45.10713	50.76334	58.83492	66.75266

OK	82.12924	83.96797	79.90541165	74.163763	67.6385982	62.09135598	56.834015	53.0994127	58.30606	62.00072	67.88213	72.6078
OR	69.4198	69.43393	67.70967306	62.369136	56.42544505	50.83093922	48.191036	49.0252901	51.93297	54.72549	59.0445	63.03077
PA	74.25429	75.93496	71.35377639	64.847584	59.3677286	53.41592845	49.768138	42.0090094	45.75564	51.36701	60.74781	68.98785
RI	71.81283	73.33401	69.33609958	64.150419	58.08664847	52.69939773	48.173763	40.9995471	43.6682	48.65884	57.53154	65.17284
SC	81.03224	82.79818	81.02335398	75.419371	68.14447671	63.79965978	61.6878	57.7191582	62.1305	66.60892	71.86668	76.59967
SD	70.17212	73.77699	70.21607946	65.407401	54.3382707	47.21638686	41.272141	36.8984705	39.35423	47.08353	56.0356	64.70811
TN	84.09757	85.43468	82.11932809	75.757692	67.55737519	62.36034444	59.814626	55.3062203	62.18074	66.53107	73.75005	80.81059
TX	85.68994	87.24682	85.80301671	81.68013	75.64827261	69.65418228	64.729855	62.656752	67.60602	70.1392	74.86826	79.77919
UT	84.44932	80.01971	69.54763531	58.539603	49.75483455	41.88844254	43.795746	47.182256	50.82354	56.46643	66.02868	73.85845
VA	76.99395	78.93813	75.1387085	69.244212	63.02009777	58.18138608	55.294075	48.8216042	52.75509	57.81087	64.8265	71.67983
VT	72.11379	72.78441	67.63335192	59.728042	53.2656001	47.04649017	41.094413	34.026921	36.95717	43.84343	55.05867	64.69456
WA	68.26757	68.789	67.03277409	62.103037	55.38154961	49.83071265	47.282926	48.0933779	50.56827	53.32213	57.8471	62.24371
WI	68.72207	70.23057	67.37837998	60.427637	53.09013343	47.6061173	44.608443	38.0836558	41.21407	46.76117	55.01093	62.89993
WV	74.57262	76.26291	71.45757579	64.747196	57.92765196	52.70377443	49.481513	41.9487121	46.66774	52.27271	61.24872	68.57108

Mr. KUCINICH. Now my staff has averaged the temperatures in 2003 on a sales-volume-weighted basis. The average temperature of gasoline in the United States in 2003 was 66.6 degrees Fahrenheit. What would your automatic temperature control equipment do if it read a temperature of 66.6 degrees? Would the consumer get more gasoline by weight or less for the money?

Mr. GAFINOWITZ. The gasoline devices, presuming that the compensating factor was set to 60 degrees, they would compensate that for 60 degrees, and you would get an increase in energy level once you would compensate.

Mr. KUCINICH. So you would get a little bit more for the money?

Mr. GAFINOWITZ. Correct.

Mr. KUCINICH. That would be a net benefit for the consumer. Is that correct?

Mr. GAFINOWITZ. I believe that would be.

Mr. KUCINICH. I want to thank Mr. Gafinowitz for his participation, as well as all the panelists.

Mr. Davis, do you have any other questions?

Mr. DAVIS OF ILLINOIS. I will just ask Mr. Suiter one question. Who primarily uses the information that NIST generates? I am trying to see if there is any way to make more effective use of the work that you and your colleagues do. It is primarily for whom?

Mr. SUITER. Primarily what?

Mr. DAVIS OF ILLINOIS. The information that you generate is primarily for the use of whom? Who uses it? What does it cause to happen as a result of the information?

Mr. SUITER. OK. In this instance, the information that I think you are referring to was generated and presented as an educational tool for weights and measures officials, primarily to allow them to make an informed decision on the issues before the National Conference of Weights and Measures based on sound technical data.

Mr. DAVIS OF ILLINOIS. And, Mr. Seibert, it seems to me that I heard you saying that one of the best ways for the free enterprise system to really work is when the consumer has the same information and understanding as the supplier so that decisions are being made on the basis of best interests from both vantage points. Would you say that is kind of accurate?

Mr. SEIBERT. Extremely accurate, yes.

Mr. DAVIS OF ILLINOIS. And so education, public education probably is also going to be greatly needed in order to make sure that the balance is there that seemingly we are looking for.

Mr. SEIBERT. Certainly. And, in Canada, the oil producers and retailers were instrumental in helping Measurement Canada in their campaign, in their public information campaign to get that public acceptance and understanding of the system.

Mr. DAVIS OF ILLINOIS. Thank you very much; and thank you, Mr. Chairman.

Mr. KUCINICH. Thank you.

Mr. Cummings.

Mr. CUMMINGS. Yeah. Mr. Cleary, I want to come back to you. I just literally got your statement hot off the press, and I haven't even had a chance to read it, but this did catch my eye. It said, "On January 16 and 17, 1905, the National Bureau of Standards, today known as the National Institute of Standards and Tech-

nology, invited the States to participate in the development of uniform weights and measures for the United States. The relationship grew into what is known as the National Conference on Weights and Measures. The United States is one of the only countries in the world without a Federal weights and measures regulatory agency. In the United States, each jurisdiction funds its weights and measures program based upon budgetary priorities in that particular State." And then it goes on and on. But it is a nice piece for me to start to—just a few questions I want to ask you.

When I go to the gas pump, they have these little stickers on there saying that this has been checked by the weights and measures or something like that. And I take it that what that means is if I get a gallon of gas at the Exxon station, for example, at Vine and Main Street, if I go up the street to Kossuth and Main, the gallon is the same gallon. Is that right?

Mr. CLEARY. That is correct, sir.

Mr. CUMMINGS. And what do you all have to do with that, if anything?

Mr. CLEARY. Generally, each State has regulatory officials, either at the local level or the State level, that goes out routinely, perhaps once a year, and tests that pump to set specifications to make sure that the pump is delivering accurately.

Mr. CUMMINGS. And so what do you all—your organization does what with regard to that?

Mr. CLEARY. Our organization, with regards to that, works with the States to develop model laws and specifications and tolerances that they accept as their State laws for testing those devices.

Mr. CUMMINGS. So that means if I was in Minnesota a gallon of gas—and I am not even dealing with the issues we are dealing with here. One of the major concerns, if I am in Minnesota—a gallon of gas is a gallon of gas in Florida. Not even dealing these issues. But, I mean, as far as the liquid is concerned. Am I right?

Mr. CLEARY. Yes. That is why we exist, is to try to make sure, through this voluntary effort, that States develop uniform specifications so that doesn't occur, so that you don't drive from Minnesota to another State and have a different standard for a gallon of gasoline.

Mr. CUMMINGS. OK. I asked you a little bit earlier about a vote possibly being delayed, and you said there has been discussion of it. Who votes in your organization?

Mr. CLEARY. The regulatory community votes, sir.

Mr. CUMMINGS. And is that—so that, based upon what you just answered a moment ago, that would be State folk; is that right?

Mr. CLEARY. State directors and local government officials, yes, sir.

Mr. CUMMINGS. So does industry play a role in this at all?

Mr. CLEARY. They play a role with regard to testifying, being part of the consensus process, being able to sway opinion one way or the other, but they don't have a voting role at the conference.

Mr. CUMMINGS. Mr. Chairman, I just need 2 more minutes, because he just said something that I just have to get in. I couldn't sleep tonight if I didn't.

Mr. KUCINICH. The gentleman may proceed.

Mr. CUMMINGS. Thank you.

You said they have a lobbying role. What did you say?

Mr. CLEARY. They are participants in the conference. They are members, and they are allowed to state their opinions for the record.

Mr. CUMMINGS. And you said sway.

Mr. CLEARY. Sometimes their arguments are persuasive, based on technical data that the regulatory officials don't have.

Mr. CUMMINGS. But they have no vote?

Mr. CLEARY. No, sir.

Mr. CUMMINGS. Do they sponsor travel or resort trips or anything like that?

Mr. CLEARY. They don't sponsor travel, no, sir. They occasionally will donate to a banquet or something at a conference. Their association will occasionally help out with an event that we are trying to do for the membership.

Mr. CUMMINGS. Would you be kind enough to get us the information over the last, say, 3 years as to what they have donated to the industry? You know what the industry is, right? I mean, you used the word.

Mr. CLEARY. Yeah, they have a group within the organization itself. I can get you any information that we have relative to that.

Mr. CUMMINGS. Staff will get you some written questions, because we want the American public to know, you know, what their State—how their State folk are being swayed. And, you know, they need to know that.

And do they provide meals and gratuities, too?

Mr. CLEARY. No, sir, they don't provide meals to us, no.

Mr. CUMMINGS. So they just send you to a resort and say see you later?

Mr. CLEARY. No, the conference dues pay for all meetings. If you are traveling on business for the conference, the conference itself is incorporated and pays for those things. They are not sponsored or paid for by industry folks.

Mr. CUMMINGS. Well, why don't you tell me what does industry pay for?

Mr. CLEARY. Occasionally, the industry group within the organization will help sponsor, say, for instance, an after-hours event that takes place at the annual meeting. For instance, this year in Utah we are having a conference. There will be a reception with some food and some drinks provided for the membership that will be helped by the association. But the conference itself pays for the great majority of that.

Mr. CUMMINGS. Wouldn't it make sense, though, when we are talking about something like this where the industry—I mean, based upon these votes or the delay of a vote can make, in the words of all of us, billions upon billions of dollars, that so that your State folk who are the voting members, who come from Maryland and Ohio and places like that, so they can feel that they have not been swayed at all—I mean, based upon any kind of—you follow what I am saying?

Mr. CLEARY. I understand completely what you are saying, but ethically we would never tolerate any particular industry doing that. I mean, that would not be tolerated. I mean, our people are ethical people who don't make decisions on the basis of the type of

food that you would get at a reception that occurs in one of our conferences, sir; and I would invite you to try some of that food to determine whether or not you would be swayed one way or the other.

Mr. CUMMINGS. Are you trying to tell us the food isn't good?

All right, just one last thing.

Mr. CLEARY. Yes, sir.

Mr. CUMMINGS. Has industry ever refused to comment on temperature compensation when asked to by the National Conference? I mean, have you all had formal discussions with industry on this? Formal?

Mr. CLEARY. Yes, we have had formal discussions with industry at our open hearings. Our open hearings are the basis where we provide anyone who has comment about a particular issue to come forward and debate it and discuss it. And, yes, they have.

Mr. CUMMINGS. So they have made it clear that they are for or against?

Mr. CLEARY. Certain groups within the organization, for instance, API, have made a statement that they are against temperature compensation. They have testified to that fact at our open hearings, yes.

Mr. CUMMINGS. Do they have any oil companies for it?

Mr. CLEARY. We haven't had any one as yet come forward from the oil community to testify for it, no.

Mr. CUMMINGS. Thank you, Mr. Chairman.

Mr. KUCINICH. I thank the gentleman; and I think it would be of use for this subcommittee to have Mr. Cleary provide us with information that you just spoke about, perhaps minutes of meetings, any letters or e-mails or logs of phone calls relating to the oil industry objection to the automatic temperature control technology. If you could provide the committee with that information, and our staff will send you a followup request.

Mr. CLEARY. Yes, sir.

Mr. KUCINICH. Thank you, sir.

I want to thank the panel for its participation and for this discussion. The first panel is dismissed, and we are very grateful for what you have done to help enlighten us about this matter relating to consumers paying a billion and a half dollars for gasoline they are not getting.

We are going to go to the second panel, and we are fortunate to have an outstanding witness on this second panel. I say "witness" because we had intended to have the executives of ExxonMobil and Shell here, and they are obviously not appearing.

Let the record show that Mr. Rex Tillerson, CEO of ExxonMobil, was invited and declined to attend; that Mr. John Hofmeister, president of Shell, was invited and declined to attend; and let the record reflect that this subcommittee will be persistent in its efforts to continue to extend invitations to ExxonMobil, Shell, and the executives of other oil companies so they will have an opportunity to be able to put their position on the record.

Mr. Columbus, I want to apologize. You are the lone witness on the panel. As I stated in my opening statement, it was our intention that you would be accompanied by ExxonMobil and Shell. But, judging from your resume, I have no doubt you will be able to hold your own nevertheless. I want to thank you for coming.

It is the policy of the Committee on Oversight and Government Reform to swear in witnesses before they testify. I would ask you, Mr. Columbus, if you would rise, raise your right hand.

[Witness sworn.]

Mr. KUCINICH. Thank you. Let the record reflect that Mr. Columbus has answered in the affirmative.

Mr. Columbus, as with panel one, I ask that you give an oral summary of your testimony and keep the summary under 5 minutes in duration. Bear in mind that your complete written statement will be included in the hearing record.

Mr. Columbus, the floor is yours.

**STATEMENT OF R. TIMOTHY COLUMBUS, GENERAL COUNSEL,  
NATIONAL ASSOCIATION OF CONVENIENCE STORES, AND  
GENERAL COUNSEL, INDEPENDENT GASOLINE MARKETERS  
OF AMERICA**

Mr. COLUMBUS. Mr. Chairman, thank you. Members of the committee, thank you for showing up today. And Congressman Cummings, I am the guy that you are waiting for; and I tell you I look forward to your questions much the way a piata looks forward to being the center of the party.

But I, in fact, am Timothy Columbus. I am a member of the law firm of Steptoe & Johnson, and I appear today in my capacity as the General Counsel of the National Association of Convenience Stores and the Society of Independent Gasoline Marketers of America. The collective membership of these two trade associations sells approximately—I don't know—somewhere between 60 and 85 percent of the gasoline and diesel fuel sold at retail in the United States.

There have been a number of things upon which parts of your inquiry have been premised that I think I would like to set straight.

The first one is that automatic temperature correction is an issue really centered around the motivation and interests of big oil. And by big oil I assume we are talking, Mr. Chairman, about the integrated oil companies to whose profits you previously made reference.

The reality is this isn't about big oil. This is about little oil. Big oil owns and/or operates under 10 percent of the retail outlets in the United States. The retail segment is overpoweringly dominated by independent businessmen and women, most of whom are small businesses. For example, NACS estimates that approximately one-half of the convenience stores in the United States are operated by single-store operators. So, from our view, the claims that big oil is doing something nefarious here are misdirected. If you have a problem, it is with us, not the integrated oil companies today; and I think after a little discussion I hope you will feel that you don't have a problem with us.

I sincerely appreciate the focus of the committee's questions today, because what you have aimed at is consumer welfare, and I think that is where we should start. As in all inquiries relating to marketing practices, consumer welfare really is supposed to be the primary value that we are seeking some certainty on. And, historically, the role of government in this kind of inquiry has been

to identify deceptive and/or fraudulent practices, to act to enhance market transparency so, as Mr. Davis pointed out, well-informed consumers can make well-informed and self-interested decisions, and to minimize consumers' costs by assuring that consumers benefit from efficient and competitive markets.

I believe the review of the facts relating to each of these policy objectives indicates that government action mandating a change in retailers' marketing practices in selling non-temperature corrected, "gross gallons," would produce no, no increase in consumer welfare, is more likely to harm consumer welfare than help it, because I think what you are going to do in net, net is raise consumer prices. Retailers selling gross gallons of motor fuels does not constitute a deceptive practice.

Let's talk about what a deceptive practice is. It is a broken promise. A deceptive practice I think is when someone looks up and says I am going to sell you this and delivers something other than the promised good.

The transaction at a retail motor fuel outlet is simple. The consumer comes in and purchases a standard gallon, defined as 231 cubic inches of a hydrocarbon mixture which meets the definitional standards of gasoline or diesel fuel as set out by ASTM for that standard gallon and pays the price posted on the big sign out in front of the outlet. I submit that is exactly what happens and that all consumer expectations as to what they are going to get have been fulfilled.

Mr. Chairman, the fact that many—in fact, most retailers buy gasoline—and let's just talk about gasoline. We will get to diesel fuel if you want to focus on that, too—on a net gallons basis as opposed to a gross gallons basis is of interest, but it is not dispositive as to different transactions. And we can talk about—and I am sure I am going to get a chance, based upon your prior questions—about why people use net and gross at different levels. The terms upon which the retailers bought motor fuel are not relevant to the terms of the transaction, which is a retail sale.

Now some have asserted even today that consumers have an expectation of a certain number of British thermal units in a gallon of gasoline and that ATC, automatic temperature correction, will assure that the same amount of energy is in each gallon. Mr. Chairman and members of the committee, I deny that is going to happen. And it is not because anybody has anything nefarious about it. It is because today there are virtually no two gallons of motor gasoline which have the same number of Btu's in them. The number of British thermal units in a gallon of gasoline is going to be a function of what crude oil was processed at a refinery, what machines took the off-put of the distillation towers and turned it into whether that is a catalytic cracker or reformer or an alkalization unit. There are a whole lot of them.

One of the things that is absolutely going to positively affect how many British thermal units there are in a gallon of gasoline is whether or not you blended ethanol with it. A 90–10 blend of ethanol is going to diminish the number of British thermal units in a gallon of gasoline.

So if that is our principal point of inquiry today, Mr. Chairman, I urge you to run right over to the Commerce Committee, because

they are on their way to a 38 billion gallon ethanol mandate. And if Btu's is the coinage of choice, we should be concerned about that. The fact is that the standard definition of gasoline, which is an ASTM definition, doesn't even reference Btu's. It is a performance standard.

Now, in summary, as long as the product meets the appropriate definition performance characteristics set out by the association—the American Society of Testing and Materials, I think it is—and the consumer gets 231 cubic inches of that, I believe the retail transaction has not been deceptive and the consumer has purchased what he or she intended to.

Now the question is, would ATC, automatic temperature correction, equipment being installed at retail enhance consumer welfare? I think the answer to that is no.

First of all, as I pointed out, we still are not going to know, based upon temperature, how many Btu's there are in the gallons sold on the east side of the street as opposed to the gallons sold on the west side of the street. They may come with different—I know I am running long, Mr. Chairman, but give me a break here. I am asking for some leniency before I take my whipping.

Due to different API-specific gravities, there is going to be an increase in cost. And you can talk whether it is \$2,000 or \$3,000 per pump—the average outlet in the country has four pumps, all right? So you are talking \$8,000 to \$12,000 for a retrofit.

Now, last year, the average convenience store in the United States made under \$34,000 of pretax profit. That is the average store. So that means there are a bunch who made less than that. So you put that kind of capital requirement onto those stores and you are going to see the marginal outlets in the market leave.

The loss of those outlets may or may not have an upward price pressure, but two things are true. No. 1, normally increased concentration results in higher prices. No. 2, it is certainly a loss of consumer choice. And consumer choice has historically been viewed as a primary consumer benefit. The higher capital costs imposed on the remaining retailers are going to be recovered in higher product prices. And permissive with respect, Mr. Chairman, and I would be happy to talk to you about this today, I believe that the permissive use of ATC in this economy would be a nightmare for consumers.

So, finally and most importantly, I am telling you what I am hoping you are going to understand. The allegation from Mr. Seibert is that somehow consumers are not getting what they are paying for and that really what ought to happen is that when somebody buys a gallon they ought to get more product. Well, OK. You can define a gallon of gasoline any way you want. You can define it as Hawaii has, as 234 cubic inches; you could define it as 500 cubic inches. One of the things I am pretty sure of is, if a greater measure of value passes out in a transaction, the price term is going to change on that. You know, if you buy a 4-ounce candy bar as opposed to a 3-ounce candy bar, my guess is you are going to pay more for the 4-ounce candy bar. Mandating or permitting on an unrestricted basis ATC at retail motor fuel sales I believe will deliver no increase to consumer welfare and very well may risk consumer welfare by generating a loss of consumer choice

and, in fact, increased consumer confusion in the event of permissive and higher prices.

You have been very patient. Thank you, Mr. Chairman.

Mr. KUCINICH. Thank you very much, Mr. Columbus, for your testimony.

[The prepared statement of Mr. Columbus follows:]

106

BEFORE THE

**SUBCOMMITTEE ON DOMESTIC POLICY  
OF THE**

**COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM  
OF THE**

**UNITED STATES HOUSE OF REPRESENTATIVES**

TESTIMONY OF R. TIMOTHY COLUMBUS  
ON BEHALF OF THE

**NATIONAL ASSOCIATION OF CONVENIENCE STORES  
AND THE**

**SOCIETY OF INDEPENDENT GASOLINE MARKETERS OF AMERICA**

**REGARDING "HOT FUELS"**

JUNE 8, 2007

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BEFORE THE SUBCOMMITTEE ON DOMESTIC POLICY  
OF THE COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM  
OF THE U.S. HOUSE OF REPRESENTATIVES

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REGARDING "HOT FUELS"

JUNE 8, 2007

Good morning Mr. Chairman and Members of the Subcommittee. My name is R. Timothy Columbus. I am a member of the law firm of Steptoe & Johnson and appear today in my capacity as the general counsel of our clients the National Association of Convenience Stores (NACS) and the Society of Independent Gasoline Marketers of America (SIGMA).

NACS is a trade association representing convenience and petroleum retailers throughout the United States and the world. The domestic convenience store industry is comprised of approximately 145,000 retail locations and in 2006, sold approximately \$405 billion worth of motor fuels.

SIGMA is an association of approximately 255 motor fuel marketers which operate in all 50 states. SIGMA's members sell more than 30 percent of all the motor fuels sold in the United States and supply more than 35,000 retail outlets across the country. Members of NACS and SIGMA sell well over half of the motor fuels sold in the United States.

As per the Subcommittee's letter of invitation to testify, my comments focus primarily upon the impact on commercial transactions of the thermal expansion of gasoline, some of the "solutions" already offered, and my client's perception of the consumer's interest in this matter. For the reasons set forth in this testimony, it is the recommendation of NACS and SIGMA that,

with the exception of activities to develop and disseminate relevant information, the federal government should take no action related to the matter we are discussing today.

Before turning to those matters, Mr. Chairman, I must make one thing perfectly clear about this whole debate. This dispute has virtually nothing to do with the integrated oil companies. These companies own, much less operate, less than 10 percent of the retail outlets. So please make no mistake. This is all about independent retailers.

#### BACKGROUND

For over 70 years, liquid motor fuels have been sold throughout the country to retail consumers on the basis of regularly posted price for each liquid gallon (231 cubic inches) of fuel delivered into the motorist's tank at a retail outlet. State regulators regularly inspect retailers' fuel dispensers to assure that each is, within acceptable tolerances, delivering 231 cubic inches of the product being dispensed.

The range of characteristics and performance standards for gasoline and diesel fuel are uniformly recognized as having been established by the American Society for Testing and Manufacturing (ASTM). Gasoline is defined by ASTM D 4814-07 and diesel fuel is defined by ASTM D 975-07. As a review of the definition indicates, gasoline is a liquid fuel which fulfills the performance characteristics set forth in ASTM D 4814-07. Similarly, diesel fuel is defined as a liquid fuel which fulfills the performance characteristics set forth in ASTM D 975-07.

At all times in the modern area of fuels marketing, these facts have been uniformly accepted and those agencies charged with the protection of a consumer's interests in motor fuel transactions have held motor fuel sellers accountable for assuring that the consumer receives products which meet the appropriate definition. Notably, no where in these definitions does ASTM define the energy content of a gallon of gasoline or diesel fuel. The Btu content of a

gallon of gasoline or diesel fuel will vary based upon the process by which it was manufactured and the components blended to achieve the performance required by the relevant ASTM standard.

Gasoline is, for the most part, an entirely fungible commodity. Manufacturers of gasoline make it to ASTM standards and generally ship their production to market in batches which in the process of transportation are co-mingled with the production of other manufacturers. Simply stated, for the most part, all retailers in a particular market acquire product at a terminal facility which contains the co-mingled products of many manufacturers. The only "product differentiation" between products takes place as sellers inject different additives into the product as it is delivered from the terminal into a transport truck. In most metropolitan markets all retailers obtain their products from terminals supplied by the same common carrier pipeline, located in sufficiently close physical proximity as to experience the same ambient temperature, deliver them by trucks driving through the same ambient air temperature, and deliver this product into storage tanks surrounded by ground of the same ambient ground temperature.

The uniformly enforced requirement that a consumer, when purchasing a motor fuel, receive 231 cubic inches of a product meeting the appropriate ASTM definition, coupled with the near total transparency of pricing in the retail motor fuels markets, has resulted in perhaps the most competitive and generally understood commodity market in the country.

#### THE ALLEGED PROBLEM

Because motor fuels are volatile they are subject to physical expansion and contraction in response to changes in temperature. (For example, 231 cubic inches of most conventional gasoline at 60 degrees Fahrenheit when heated to 80 degrees Fahrenheit will occupy 234 cubic inches of space.) Critics of retail motor fuels marketers allege that because marketers purchase

motor fuels as if these fuels had been delivered at a temperature of 60 degrees Fahrenheit, consumers are being cheated if they purchase product being sold and measured in standard gallons at ambient temperature. This allegation does not recognize that many retailers purchase gasoline and diesel fuels on a “gross gallons” (non-temperature corrected) basis. These critics allege that because a retailer purchases product on a temperature corrected basis and obtains 234 cubic inches of gasoline at 80 degrees Fahrenheit for a price term that assumes it purchased 231 cubic inches of that product at 60 sixty degrees Fahrenheit, the retailer has deceived the consumer if it charges the consumer a price for 231 cubic inches of gasoline at a temperature of 80 degrees Fahrenheit. In this example critics would claim that the consumer has been cheated out of three cubic inches of gasoline and the British thermal unit (Btu) content of those three cubic inches of gasoline.

While superficially attractive, this allegation is in itself deceiving for a number of reasons. Foremost of these reasons, as discussed in detail below, is that a gallon of gasoline, sold at retail, is not comprised of a fixed number of molecules or a certain number of Btu’s, but rather is uniformly acknowledged to consist of 231 cubic inches of a mixture which meets the definition of gasoline established by ASTM. That is what consumers buy and that is what retailers sell, nothing more or less. There are no additional terms or conditions as to what is being transferred and as a consequence there is no confusion or consumer harm.

#### THE REAL PROBLEM

As discussed above, the promised and delivered transaction which occurs when a consumer purchases a gallon of “gasoline” is the transfer of 231 cubic inches of a mixture of hydrocarbons which meets the definitional criteria to qualify as gasoline within the specifications established by ASTM. The heretofore uniform acceptance of the validity of that statement has

resulted in consumers benefiting from the most transparent and competitive of all of the major commodity markets in the United States. In this market consumers know precisely what they are buying and that the posted offer to sell published on large price signs at retail motor fuel outlets are for the same “gallon” of gasoline. These price signs force retailers to compete on the basis of pennies per gallon, empowering customers to shop for the best price, and best value, without ever leaving their vehicles.

Implementation of proposals to require retailers to “temperature correct” the gallons sold at retail would result not only in no increase in consumer benefit, but most probably in genuine consumer confusion and economic harm in the form of unnecessarily higher prices.

#### SOLUTIONS ALREADY OFFERED

For advocates of change, there are two mutually exclusive general approaches to temperature adjusted retail gasoline dispensing: mandatory or permissive. A careful analysis of both demonstrates consumers would be negatively impacted by either.

Permissive Temperature Adjustment. The primary problem with a “permissive” approach to dispensing temperature adjusted retail gallons stems from the potential for undue complexity in the market and confusion in the minds of consumers. If each retail outlet potentially sells differing volumetric gallons of gasoline (whether at the same or differing prices), the prospect of a consumer sorting through purchase options and arriving at a standard basis for making a purchase decision is daunting, if not impossible. Nor would a proliferation of point-of-sale disclosures likely lead to clarity. To the contrary, physics lessons at the pump island could be expected to intensify confusion, not dispel it. And, of course, all the cost benefit concerns expressed below apply, as well.

Mandatory Temperature Adjustment. A “mandatory” approach could provide some degree of greater certainty (and market place clarity) than would a “permissive” approach. However, for the reasons discussed below, the direct and indirect costs of implementation loom large and depending upon the administrative and technological approach, a mandatory regime runs the risk of creating the worst of all possible worlds where all the costs are incurred and absolutely no offsetting benefit is provided.

Mandatory temperature correction would, in fact, require the retrofitting or replacement of all existing gasoline and diesel dispensers. While estimates of the total cost of such an exercise vary, it is clear that this cost will be in the thousands of dollars per dispenser. Current estimates are approximately \$2,000.00 plus per electronic dispenser and \$1,500.00 to \$3,800.00 per mechanical dispenser depending upon the number of hoses. (It is noteworthy that the only technology to retrofit a mechanical dispenser is subject to a patent owned by Krause Technology. How an apparent monopolist would react in price terms to a mandate for its technology is unclear.) On average, we could expect an expenditure of approximately \$8,000.00 per outlet. These costs will be passed on to consumers along with an amount representing a return on the investors’ capital. For economically marginal retail outlets, this additional investment may mean the termination of their participation in the market. (The average convenience store/retail petroleum outlet in the U.S. generated a pre-tax profit of approximately \$33,396.00 in 2006. See NACS State of the Industry Report 2007.) Should these marginal outlets leave the market, market concentration will increase generating the prospect of less competition and higher prices.

Similarly advocates of mandatory temperature correction ignore the fact that different hydrocarbon mixtures which meet the definition of gasoline or diesel fuel have different specific gravities and other characteristics which render each such mixture’s physical response to changes

in temperature different. For example, gasolines containing blends of conventional product plus volumes of ethanol are likely to expand and contract differently than a gasoline which contains no ethanol. There is nothing inherently wrong with that. However, two consumers purchasing two different gasolines at outlets across the street from each other may, even if the two products' temperatures are identical and automatically corrected, receive slightly different volumes of product and radically different Btu content. How will the consumer know what he or she is receiving?

Finally, advocates of temperature correction claim that this practice will provide value to the consumer. However this claim has no basis. Selling wholesale gallons based on a 60 degrees Fahrenheit gallon is, just like selling retail gallons on a non-corrected basis, a price term; nothing more. There is no guarantee that a change in that price term will not immediately result in the change of another: the one on the price sign.

#### CONCLUSION

In conclusion, critics of the long existing practice of delivering to retail motor fuel consumers a standard gallon (231 cubic inches) of gasoline allege that the consumer is being deceived and cheated because that consumer would receive more Btu's if a gallon, the temperature of which exceeds 60 degrees Fahrenheit at the time of retail sale, were temperature corrected to that lower figure. This claim is patently false. No consumer is deceived or cheated. The consumer does not now, and has not in the past, had any legitimate expectation of receiving a certain number of Btu's when he or she purchases a gallon of gasoline, because there is no standard number of Btu's in a gallon of gasoline. No two gallons of gasoline produced by different manufacturers are likely to contain the same number of Btu's at any temperature. Moreover, when ethanol is included in the fuel, the Btu differential is far greater.

As noted above, the adoption of proposals for “permissive” temperature correction is a guarantee of consumer confusion. Mandatory temperature correction provides no increased certainty as to what any particular consumer will receive when buying from one retailer as opposed to when it purchases from that retailer’s competitor. It does, however, guarantee the injection of additional costs into the market for which the consumer unquestionably will be required to pay along with a return on capital invested.

This entire debate has been great fun for journalists and a dream for some plaintiffs counsel. The only thing missing from the conversation has been a documented increase in consumer welfare which will result to compensate the consumer for a loss of market transparency and higher operating costs for vendors.

Mr. Chairman, as I am sure you are aware, House Science and Technology Committee Chairman Bart Gordon has requested the National Academy of Sciences (NAS) to complete an exhaustive study to determine whether a problem exists and whether the use of automatic temperature compensation equipment is warranted. At the very least, we suggest that Congress should not make any decisions relative to this issue until it has the opportunity to review the findings of this NAS study.

SIGMA and NACS deeply appreciate this opportunity to share their views with the Subcommittee. I will be happy to respond to any questions which my testimony may have raised.

Mr. KUCINICH. Before I ask my questions, I would just like to say that you spent a lot of time talking about the differences between Btu's here and Btu's there.

Mr. COLUMBUS. Right.

Mr. KUCINICH. And I would like to suggest that this isn't so much about the Btu's as it is about the b-u-t's.

Mr. COLUMBUS. OK.

Mr. KUCINICH. But Canada has this technology, and the United States does not. But Americans are paying more for gasoline they are not getting and Canadians are not. But oil companies are gaining a windfall of \$1.5 billion, according to this staff report, just in the summer of 2007, and but there is no evidence that the retailers are getting this money from this scheme. And but you are saying that customers may have to pay more if you have this automatic temperature control, but they don't have it and they are paying more? So the oil companies apparently have the people coming and going.

No, that's not acceptable. I don't think that we can let the American consumers be hostage.

I have some questions here that relate to your testimony. We have heard from retailers who claim that the profit they make on a sale of gasoline is slim to nonexistent.

Mr. COLUMBUS. That is correct.

Mr. KUCINICH. We have heard that the profits are in the food and other concession sales at the convenience mart. Now is that generally true for your members?

Mr. COLUMBUS. I believe that is so.

Mr. KUCINICH. OK. At the same time, they are making slim to no profits on the sale of gasoline.

Mr. COLUMBUS. Correct.

Mr. KUCINICH. ExxonMobil, Shell, and other integrated oil companies are making very significant profits. In 2006, ExxonMobil made \$39.5 billion in profits alone. They are the envy of every business, and I bet your members are wondering how it is they sell the gasoline and ExxonMobil earns the profits. What do you tell them?

Mr. COLUMBUS. Actually, they don't ask me that question because they already know the answer.

Mr. KUCINICH. But what do you tell them?

Mr. COLUMBUS. What do I tell them? They don't manufacture this. They are price takers at the wholesale level, and in a special way they are price takers at the retail level. The market sets the wholesale price. It is what it is.

If we had a lot more gasoline supply in this country, Mr. Chairman, my bet is those wholesale prices would be lower. As a representative of buyers of gasoline at the wholesale level, we love long supply situations. We don't have that today. I suspect that my people will do what they have continued to do, which is they will buy gasoline at the best price that they can find it in the market, and they will sell it at the best price at which they can sell it in the retail market and, by trying to control their costs, maximize the profit that they realize out of the difference between those two prices.

Mr. KUCINICH. OK. So what we have established here is that these retailers are making slim to no profits. They are not the ones

keeping the profits in gasoline sales. So it would stand to reason that they are not the ones keeping the profits from hot fuel sales.

Mr. COLUMBUS. Well, if I may respond, sir?

Mr. KUCINICH. Of course.

Mr. COLUMBUS. The theory is that retailers—I mean, when we are talking about automatic temperature correction, we are talking about it at retail. So the theory must be that the retailers are somehow making a lot of money on this.

Your staff I think in briefing you, Mr. Chairman, if I understand the premise of your question, has suggested that somehow these guys are getting free gallons. I think if you go into—and I am talking about the retailers. If you go into the retailers' books, what you will see is that any inventory gain on expansion fundamentally goes to reduce costs of goods sold.

And that is how they will account for it. But the reality of it is that the profitability on motor gasoline of the retail segment of this country's petroleum industry is very, very thin.

Mr. KUCINICH. Let me ask you this. How do you think the Exxons and the Shells get the hot fuel premium once they have sold the gasoline to retailers in temperature compensated gallons?

Mr. COLUMBUS. I believe they don't, sir, because I believe that the, "hot fuel premium," is a characterization of something that I think my people disagree exists.

Mr. KUCINICH. OK. Now we are getting existential. Is there such a thing as thermal expansion?

Mr. COLUMBUS. There is. There is also thermal contraction. And earlier you asked someone else why do people in Canada do this on a permissive basis? Because for years retailers in Canada saw, saw, actual inventory shrinkage because they bought at 60 degrees and they were selling something less than 60 degrees. And if they were competing with someone whose sole source of profit was not retail sales and therefore did not feel a need to recover that shrinkage in the retail market they were being penalized. So when the Canadians went to this it was in the retailers' economic interest to get rid of that inventory shrinkage. That doesn't make them bad people; that makes them business people.

Mr. KUCINICH. Do oil companies buy and sell to each other at wholesale at the 60-degree standard?

Mr. COLUMBUS. Yes, sir, they certainly do. And there is a good reason for that.

Mr. KUCINICH. And at retail isn't it true that oil companies buy at one temperature and sell to consumers at another.

Mr. COLUMBUS. My people are oil companies, and they sell retail at gross. So the answer is yes.

Mr. KUCINICH. Thank you. Mr. Davis.

Mr. DAVIS OF ILLINOIS. Thank you very much, Mr. Chairman. The more I listen and the deeper we get into this discussion it reminds me of a limerick that says never ask of money spent where the spender thinks it went. Nobody was ever meant to remember or invent what they did with every cent.

As I guess for the consumer trying to figure out who got my money, I mean you spend \$50 to fill up the tank and you are trying to figure out, well, if the convenience store operator didn't get it because they are barely making it, I mean their profit margins are

not that great, if the guy who brought it to the station isn't getting it, he is just a regular working person who is hauling or transporting gasoline, the person working at the foundry—

Mr. COLUMBUS. Didn't get it.

Mr. DAVIS OF ILLINOIS [continuing]. Didn't get it, where is it. Well, the oil companies when we look at their profit margins must have gotten something that produce these tremendous profits. Now, we know that the cost of living, the cost of things are constantly rising. But have other things risen as much as the price of gasoline seems to be rising?

Mr. COLUMBUS. The short answer, what I can focus on for you, and I hope I help you with, is how it works at retail, because ATC is really focused at retail. And if it turns out that the good dog is hunting the wrong beast then my mission has been accomplished here today. Something that has gone up a lot faster than retail and gasoline prices is credit card fees. At \$3 a gallon that retailer is sending any place from 6½ to 9 cents a gallon to credit card companies. Because at \$3 a gallon people want to use that card, they don't want to use cash any more, Mr. Davis.

When I started working for this industry I had hair, I had a jaw line, I had a waist. That is 30 some years ago. At that time the domestic industry's manufacturing capacity overhung demand by about 2 to 5 percent. Today we are a net importer of gasoline. And if you are looking for what happened to gasoline prices, I urge you to start there because it is the old saw, it is supply and demand. When product is tight, prices go up whether or not the cost to manufacture it does. The market prices this product. And if we were to look at all these retailers and say, OK, now we are going to automatically temperature correct every gallon that you sell, OK, if rather than 231 cubic inches that customer gets 234 cubic inches, I believe, maybe I am a pessimist, but I believe the price for that 234 cubic inches is going to be different and higher than it was for the 231. That is exactly what has happened at the wholesale level.

As to the chairman's inquiry about why are we using net gallons, temperature corrected gallons at wholesale as opposed to retail, most of it is the nature of the transactions for which this was aimed. And that is bulk transactions. We are talking pipeline tenders, cargos, barges, moving between terminals. And not just within the same market area, Mr. Chairman. These guys balance their supply imbalances normally by trading. You may tradeoff with somebody. You can put a pipeline tender in the Colonial Pipeline system, which is the major source of gasoline for this city, in Pasadena, TX and it comes by us, goes up to Linden, NJ. That is 2½ weeks. In that time it will all change. So when these guys were settling their books at the end they wanted a constant temperature up, down, north, south, east, west. I think that is why it happened.

In contrast, retail motor fuels in this city all come from one of three terminals. They either come from Baltimore, they come from Fairfax or they come from Newington down south on 95. They go into trucks through the same ambient air temperature with the possible exception of differences in water tables. They have the same ambient water temperature. We don't see those kinds of differentials that require that. So the guy across the street probably has gasoline that came from the same terminal via the same route

and went into a tank with the same temperature. So it really is apples to apples.

Mr. DAVIS OF ILLINOIS. Let me just finally make sure that I just heard you suggest that it would be a nightmare if we went to utilization of this system.

Mr. COLUMBUS. On a permissive basis, that is right. Let's assume that you and I are across the street from each other, you are a retailer, I am a retailer. I decide to put ATC in, you don't. Now, I am going to have my gallon priced on a temperature corrected basis and you aren't going to have that done. What is that going to mean to the consumer? This isn't going to the Safeway and saying here's the 10-ounce can of peas and here is the 8-ounce can of peas and I have unit pricing to tell me which is the better deal. Most people buy gasoline on a decision that takes place while they are doing 25 to 50 miles an hour. And how are you going to compute? Am I going to know that temperature corrected gallon because I have 234 cubic inches as opposed to 231 on a per cubic inch basis is going to be better?

Mr. DAVIS OF ILLINOIS. Or would the consumer go where they thought they were getting the best price?

Mr. COLUMBUS. The consumer is going to go where he or she thinks. Today everybody is buying 231 cubic inches of the same product across the street from each other. They are getting that. This has been the most price transparent and, from my perspective, consumer friendly in the sense that there is very little consumer confusion about what you buy in the commodities market in the United States. I think it has served the consumer well, sir.

Mr. DAVIS OF ILLINOIS. Thank you very much and thank you, Mr. Chairman.

Mr. KUCINICH. Thank you, Mr. Davis. The Chair recognizes Mr. Cummings.

Mr. CUMMINGS. I tried to hang with you, I tried. And it has gotten—I mean, I am just confused, but I am going to straighten myself out with your help.

Mr. COLUMBUS. I am going to do the best I can for you, sir.

Mr. CUMMINGS. You made the argument that retrofitting existing pumps and buying new pumps with temperature compensation technology would be a burden, is that right?

Mr. COLUMBUS. Yeah. It is a cost and it is not a productive source in the sense if you put a new computer in your business you may be able to cut down costs. This is just a cost. I am not going to sell one more drop than I did before I put it in. So yes, sir.

Mr. CUMMINGS. So I take it that you consider it a benefit when we put in card readers enabling customers to use their credit cards? That is the difference you are making?

Mr. COLUMBUS. The short answer is yes, we put them in because that is what the consumer wanted. Paying the current credit card fees that we are paying, Congressman, we do not view as a benefit.

Mr. CUMMINGS. Well, you are helping me because I tried to give you a softball to hit a home run and you just said something that you are putting them in there—

Mr. COLUMBUS. Right.

Mr. CUMMINGS [continuing]. But you are saying that doesn't help you.

Mr. COLUMBUS. It helped take unnecessary traffic out of our stores which was slowing down the time of a transaction at the counter. The fact that we are dealing with people who have very, very substantial market power, perhaps monopoly market power in terms of charging us what the consumer—you know, we are paying a multiple in the United States on credit card fees of what they pay in Australia or Canada or Europe, sir.

Mr. CUMMINGS. I got you. Do gas pumps last forever?

Mr. COLUMBUS. I'm sorry, sir?

Mr. CUMMINGS. Do gas pumps last forever?

Mr. COLUMBUS. No, they don't. My understanding is unless there is some huge technological breakthrough that renders everything obsolete, these things are normally good any place from 8 to 12 years. The gentleman from Gilbarco probably knows a lot more about that than I do.

Mr. CUMMINGS. Isn't it a normal business operation to phase old pumps and install new ones?

Mr. COLUMBUS. Well, it is. But what you may have noticed around town in the retail market is that there are a lot of retail outlets that companies have turned over to other people because they can operate them less cheaply. They don't have to have labor 24/7 because you have a little entrepreneur who is sitting there. That person will hang onto those pumps as long as he or she can, Congressman, because to replace that pump is a solid five figure investment. I bet, what is it, 10, maybe 20 percent of, for example, the pumps in the country are still mechanical.

Mr. CUMMINGS. Some of them will be replaced, that is my point.

Mr. COLUMBUS. Yes, sir, they will be.

Mr. CUMMINGS. So how come temperature compensation is being singled out as a burden? And let me just tell you where I am going. Let me give you a shortcut. You know, I am sitting here and I have to tell you when I go home I don't know whether this is on C-SPAN or not. But I can tell you today when I go to the Safeway buying my fruits and vegetables somebody is going to say I saw you on television and they really must think you are not bright. I am telling you, that is what they are going to say. They are going to say because we heard all those arguments, but the gas price is still going up. And do you know what, they are going to talk about Davis, they are going to talk about him. And they will say Davis said the right thing, somebody is making some money. And the question is, they are going to say, hey, Cummings, where is the money going? And then they are going to say, you had that guy Columbus, was that his name, that is what they are going to say, he tried to tell you. I can hear them now. You are going to be big time popular in the city of Baltimore. Then they will say that he sat there and tried to tell you that these gas stations aren't making money. And then I remember you reading from his testimony on page 2 where he said that government should take no action related to this matter we are discussing today.

Mr. COLUMBUS. Automatic temperature correction, sir.

Mr. CUMMINGS. So my folks are going to say you know why are you there, Cummings?

Mr. COLUMBUS. If you want, and this is free counsel, so take it for what you are paying for it.

Mr. CUMMINGS. I need your help.

Mr. COLUMBUS. I will suggest that you should answer that one of the reasons that the chairman and you all came to this hearing today was to try to find out if this was the beast that could really help you provide some relief to your folks on that issue. And I love the limerick because I am telling you my folks would love more of this money. I mean they would love a lot more of this money. And they are not getting it. And if I look up at you and I think I can document to all your satisfaction that we are not the people taking this money, the question is well, then if temperature correction is a retail issue and they are not getting the money now, what the dickens am I doing jumping on this? And the answer is I think that you have been offered a very attractive proposition that somehow the consumer is getting short-changed something here. And the terrible thing about my task, Congressman, is this is a 30-second complaint and like a 40-minute answer, and that doesn't play as well on C-SPAN as I would like it to.

Mr. CUMMINGS. Mr. Chairman, I just have one more thing. The fact is that—if I could boil your argument down, it is that the retailers are not getting anything out of this.

Mr. COLUMBUS. Correct.

Mr. CUMMINGS. Second, that the reason why you are sitting there and you are against this—there are two reasons, one, you don't think the information is necessarily accurate, although you did answer the chairman's question saying there is a difference, I don't know which you think, and two, that it would be a burden for your folks, is that right, the retailers?

Mr. COLUMBUS. Yes. And I will add one other thing. I don't think the consumer is going to know more after this than before, and therefore there is no increase in consumer benefit.

Mr. CUMMINGS. And that leads me to my final point. Is it possible that if we had the machinery—let me tell you something. I have people in my district that make \$300, \$400 a week, a family of three and four, I have a lot of single mothers that drive long distances to get to work.

Mr. COLUMBUS. That is brutal.

Mr. CUMMINGS. And there is a flip side to your argument. And that is that we have a radio station in Baltimore, and I am sure that they are popular everywhere, where they tell you where the lowest gas is. And everybody tunes into where is the lowest gas. And when you go to that gas station people are lined up, lined up trying to get some gas because it may be 3 cents cheaper than anywhere else. And I guess what I am saying to you is I think you underestimate the consumer. I think you underestimate maybe, just maybe if they had this machinery and people knew that they were going to get more miles, do you follow what I am saying, for that gallon or whatever, maybe just maybe when they are on a limited income they would say, just like when they listen to the radio station and they line up, they would say, well, maybe I need to go somewhere where I can get an extra 3 or 4 miles because I don't have this kind of money, I can't go on vacation, I can't take my kids on vacation, I can't even go shopping, they may be saying, because I have to reduce the number of trips that I make because I have a limited income. And so they take the moments to try to educate

themselves so that they can say, "a penny saved is a penny earned."

I know people don't believe people live like this. Let me tell you they do. And lot of Americans do. People sitting in this room may not, but a lot of Americans are pinching pennies and a lot of those pennies are falling into those billions upon billions of dollars that these companies are making.

I am sorry, Mr. Chairman. It just aggravates me when it seems as if folks don't understand that people are in pain and they are suffering.

Mr. COLUMBUS. Congressman, let me respond. No. 1, I agree with you completely, I think people really are pushed today. I think a lot of people are pushed. No. 2, I think anybody who underestimates the wisdom and intellect of the consuming public is crazy and destined to bankruptcy. Now, No. 3, there is a fact assumed in all this that is not in evidence, and that is if we had this equipment someone would get 3 cubic inches more of gasoline at the same price that they got 231 before. And that is the premise that I challenge, sir. It is not that they wouldn't be motivated economically and smart enough to go find the best value for themselves. They do. They do the best job they can. I just don't think they are going to get the value bump that the proposition postulates.

Mr. KUCINICH. Mr. Cummings, you raise an excellent point here, which further justifies the purpose of this hearing. When any of us are looking for a place to buy gas we are looking at the signs and we are looking at what they are paying for regular or premium, depending on the kind of gas we buy, and we will study the corners or we might drive down the road and decide we are going to get a better deal here.

Mr. COLUMBUS. Yes, sir.

Mr. KUCINICH. When consumers learn that because of this thermal expansion they end up paying for gasoline they are not getting, that choice that they make becomes somewhat questionable because they see whether they go one place or another place, they are still paying anywhere from \$1 to \$3 a tank for gasoline they are not getting.

Now, here is what we found out from this hearing today that is very interesting. We heard from an industry association that hasn't wanted the automatic temperature control devices, we have heard from retailers who do not want the automatic temperature control devices, we know the oil companies don't want the automatic temperature control devices and yet the oil companies are making as much as a billion and a half dollars off of consumers for this summer alone for gasoline that they are not delivering. This committee, this Domestic Policy Subcommittee is going to continue to explore this vital consumer issue, and we will once again invite the oil companies in to testify.

I want to thank all the members of the committee for their participation. Mr. Columbus, thank you and all the witnesses. Today's hearing of the Domestic Policy Subcommittee, the title has been "Hot Fuel: Big Oil's Double Standard for Measuring Gasoline." I am Congressman Dennis Kucinich of Cleveland, OH, chairman of the subcommittee. Thank you for all attending. This committee stands adjourned.

[Whereupon, at 11:15 a.m., the subcommittee was adjourned.]  
[Additional information submitted for the hearing record follows:]

## **STAFF REPORT**

of the

**Domestic Policy Subcommittee Majority staff  
Oversight and Government Reform Committee  
House of Representatives**

**Dennis J. Kucinich, Chairman**

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**American Consumers will pay a Hot Fuel Premium of 1.5 Billion Dollars  
on Regular Gasoline Purchased during the Summer 2007**

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**Embargoed until 5 p.m.,  
June 7, 2007**

### **Findings:**

- **The oil industry has known for 100 years that gasoline expands with temperature. As it warms, gasoline expands by volume but not by weight or energy content. Since the 1920's, the oil industry has taken temperature into account for wholesale transactions, and use a 60 degree Fahrenheit standard when measuring gasoline at wholesale. But the oil industry does not adjust for temperature in retail sales to consumers. As a result, consumers pay a Hot Fuel Premium when gasoline temperatures exceed 60 degrees, as they do during the summer.**
- **513.8 million gallons of gasoline sold in the summer 2007 will be attributable to the thermal expansion of gasoline.**
- **Consumers will pay a hot fuel premium of about \$1.5 billion in the summer 2007.**

**BACKGROUND**

Gasoline expands when temperatures rise and contracts when temperatures fall. The energy content of gasoline, however, is directly related to its weight, not its volume. Therefore, the energy content of gasoline does not correspondingly increase when gasoline volume expands. The standard coefficient of gasoline's expansion/contraction equals 0.069 % per degree Fahrenheit.

**At wholesale, oil companies buy and sell to each other at a 60 degree standard.**

Since the 1920's, oil companies have taken into account temperature's effect on the volume of gasoline in transactions among one another at the wholesale level. Wholesale transactions are temperature-compensated at a standard of 60 degrees.

For instance, if Wholesaler A sells to Wholesale customer B the quantity of 10,000 gallons, the temperature of that gasoline will first be determined before a price is calculated. Let's say that the temperature was measured at 90 degrees Fahrenheit at the time of sale. Then the difference between the actual temperature and the 60 degree standard would be multiplied by the coefficient of expansion for gasoline to determine the expansion factor at the temperature of sale. This figure would then be used to adjust, in this case downward, the deal's volume to a 60 degree standard. In the example above, that would yield 9793 temperature-adjusted gallons. Price would then be calculated on temperature-adjusted gallons.

**At retail, oil companies buy at one temperature and sell to consumers at another.**

However, retail sales are not temperature-adjusted. Though technology exists and has been accepted for near universal use in Canada, no U.S. retailer of gasoline compensates for temperature when selling to consumers. As a result, when temperatures of gasoline rise above the 60 degree standard, as is the case in the U.S. during the summer, the amount of gasoline by weight decreases in a gallon, and the effective price per gallon increases.

For instance, let's say that Consumer C pumps 20 gallons at Retailer D's gas station, and assume that the actual temperature of the gasoline is 90 degrees Fahrenheit, and the consumer is paying \$3.50 per gallon. Due to the thermal expansion of gasoline, the retailer only had to deliver 19.59 temperature adjusted gallons to make 20 gallons at 90 degrees. The consumer, therefore, paid the retailer a premium on top of his costs for the gasoline and station operation, profit and excise taxes of \$1.44. Stated another way, the consumer effectively paid about \$3.57 per gallon, not the advertised \$3.50.

**METHODOLOGY and SOURCES**

The National Institute of Standards and Technology provided the Subcommittee with a temperature survey of actual gasoline temperatures taken in underground gasoline storage tanks. The survey was conducted in 2003 in all states, North Dakota and South Dakota. For our 2007 projection, we assumed that gasoline temperatures would be constant at

2003 levels. National projected average price of gasoline comes from EIA projections for gasoline prices, [http://tonto.eia.doe.gov/steo\\_query/app/pricerresult.asp](http://tonto.eia.doe.gov/steo_query/app/pricerresult.asp). Summer gasoline volume sales data is conservatively assumed to be identical to summer 2006 figures.

The Subcommittee calculated the summer hot fuel premium paid by retail consumers in 2007 in the following way:

- a) the average temperature of retail gasoline, by state and by month, was subtracted from the industry standard of 60 degrees Fahrenheit;
- b) the difference (a) was multiplied by the expansion coefficient of gasoline, which is 0.00069;
- c) the product (b) was multiplied by the number of gallons of gasoline sold, by state and by month;
- d) this product (c) was then multiplied by the average price of gasoline, by state and by month. The result (d) is the cost attributable to the expansion of gasoline by volume, without a change in its weight. A negative number indicates that the cost was borne by the retail consumer.

The calculation includes all states with the exception of North Dakota, South Dakota, Hawaii and Minnesota. As noted above, the Dakotas are excluded for lack of temperature data. Hawaii is excluded because the State, since the 1970's, has temperature adjusted the volume of gasoline to an 80 degree standard. Minnesota is excluded because the State has prohibited temperature compensation at all points in the supply chain, including wholesale.

#### **RESULTS**

Our calculations reveal that 513.8 million gallons of gasoline sold in the summer 2007 will be attributable to the thermal expansion of gasoline, and that consumers will pay a hot fuel premium this summer in the range of \$1.5 billion.

See attached tables for calculations.

**Daniel Nelson**  
Vice President  
Washington Office

June 6, 2007

The Honorable Dennis Kucinich  
Chairman, Domestic Policy Subcommittee  
House of Representatives  
Committee on Oversight and Government Reform  
2157 Rayburn House Office Building  
Washington, DC 20515-6143

Dear Representative Kucinich:

Your May 24, 2007 letter to our Chairman, Rex Tillerson, has been forwarded to me for reply.

The standard retail measurement of gasoline by the gallon has been established by the National Conference of Weights and Measures (NCWM), the principal standard setting body for the sale of liquid products in the United States. The subject of temperature correction equipment at retail stations has been considered by the NCWM, and we understand it is on the agenda for their upcoming meeting in July. ExxonMobil encourages the NCWM to consider the incremental costs (which can be significant), and benefits to consumers when assessing whether temperature correction equipment should be used at retail stations.

ExxonMobil supports a study to evaluate whether a basis exists, from a policy standpoint, to change from the current retail measurement standard. Such a study could then constitute the basis for consideration of potential Federal legislation concerning temperature correction. California is considering legislation that would commission such a study statewide, and we believe a similar study at the national level would provide an appropriate basis for evaluating any potential change to current NCWM regulations.

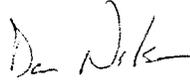
Any laws or regulations seeking to address temperature correction at retail could result in significant changes from existing volumetric practices to measurement by either energy content or weight of fuel sold. Selling fuel by energy content would necessitate having to address ongoing changes in fuel formulations, such as the use of varying (sometimes seasonally) amounts of ethanol with its lower energy content (ethanol contains only about 70 percent of the energy contained in an equivalent volume of gasoline). If the need for change is determined, ExxonMobil believes that a uniform national standard should be set, to avoid a patchwork of regulations from state to state. ExxonMobil will continue to comply, of course, with any existing and future regulations regarding the measurement of fuel for retail sale at stations where we own storage and dispensing equipment.

Page 2  
The Honorable Dennis Kucinich  
June 6, 2007

As I am sure you recognize, this is an industry issue that primarily would impact fuel retailers. Because of this, and the fact that some 80% of our branded retail sites in the U.S. are owned by dealers or distributors, who are independent retailers, we do not believe that ExxonMobil is best positioned to testify on this issue. Clearly, as the owners of the equipment that would need to be upgraded or replaced, these independent retailers would be most directly impacted if temperature adjusted measurement was to become required in the future.

As always, we stand ready to act as an information resource for you, your colleagues in the House and your staffs. Please feel free to contact me at 202-862-0235 if you have any questions concerning the above.

Sincerely,

A handwritten signature in black ink, appearing to read "Dennis Kucinich". The signature is written in a cursive, slightly slanted style.

**Daniel Nelson**  
Vice President

**Exxon Mobil Corporation**  
Washington Office  
2000 K Street, NW Suite 710  
Washington, DC 20006  
202 862 0235 Telephone  
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[r.d.nelson@exxonmobil.com](mailto:r.d.nelson@exxonmobil.com)

**Hot Fuel Premium, by state, summer 2007 (projected)**

Year	2007 projected
Sum of Average Value of Net Expansion Gain	
State	Total
AK	\$313,991
AL	-\$30,954,830
AR	-\$18,438,418
AZ	-\$69,953,243
CA	-\$227,864,803
CO	-\$20,133,024
CT	-\$10,525,913
DC	-\$861,529
DE	-\$4,424,365
FL	-\$151,663,030
GA	-\$65,946,769
IA	-\$7,918,966
ID	-\$7,320,474
IL	-\$27,935,312
IN	-\$20,705,185
KS	-\$14,386,837
KY	-\$17,538,046
LA	-\$40,058,531
MA	-\$18,613,437
MD	-\$22,632,909
ME	-\$2,621,105
MI	-\$22,750,719
MO	-\$25,889,142
MS	-\$26,118,715
MT	-\$5,098,421
NC	-\$48,299,744
NH	-\$4,174,227
NJ	-\$39,556,562
NM	-\$13,145,326
NV	-\$21,087,539
NY	-\$52,098,524

OH	-331,022,762
OK	-23,425,948
OR	-14,153,634
PA	-37,864,471
RI	-3,230,122
SC	-35,207,137
TN	-41,318,132
TX	-212,201,330
UT	-14,687,120
VA	-39,711,534
VT	-2,037,384
WA	-14,926,202
WI	-9,394,985
WV	-5,092,592
WY	-2,573,113
<b>Grand Total</b>	<b>-\$1,525,248,129</b>

Note: excluded from table are Hawaii, Minnesota, North Dakota and South Dakota

HENRY A. WAXMAN, CALIFORNIA  
CHAIRMAN

TOM DAVIS, VIRGINIA  
RANKING MINORITY MEMBER

ONE HUNDRED TENTH CONGRESS  
**Congress of the United States**  
**House of Representatives**  
COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM  
2157 RAYBURN HOUSE OFFICE BUILDING  
WASHINGTON, DC 20515-6143

Majority (202) 225-6051  
Minority (202) 225-6074

June 7, 2007

Republican Supplemental Memorandum:  
“Hot Fuels: Big Oil’s Double Standard for Measuring Gasoline”

The Majority Memorandum provides an adequate explanation regarding the physics of “hot fuel.” It is undisputed that when gasoline heats up, it expands. However, OGR minority staff (“minority”) does not accept the conclusion that this known physical phenomena necessarily acts as a fraud on consumers. This memorandum will provide a brief explanation for this conclusion and other points that are critical to an accurate understanding of this issue.

**Retail Gasoline Industry**

In the first instance, the minority disagrees with the characterization of this hearing as “Big Oil’s” Double standard. The reality is that the public purchases its gasoline at retail establishments. While many of these retail establishments bear the trademarked name of “Chevron” “Texaco” or “Shell,” most convenience stores are franchise units owed mostly by small business owners (57% of convenience stores are single store companies). In fact, integrated oil companies own less than 10% of the retail outlets. According to the 2007 NACS State of the Industry Report for 2007, the average convenience store/ retail petroleum outlet in the U.S. generated a pre-tax profit of only \$33,400 in 2006. While collectively the convenience store industry saw a rise in sales due to the high cost of gasoline, profits actually fell by 23% industry wide. Therefore, it is inaccurate to describe this debate over “hot fuel” as one of “Big Oil” vs. the American Consumer and it is just as inappropriate to think that “Big Oil” can afford the remedy, because they are not the target of the remedial action. It is convenience store and gas station owners who are the focal point of this debate over “hot fuel.”

**Market Economics**

The second point is that it is important to accurately understand what transaction is allegedly leading to the consumer loss. Essentially, the majority memorandum argues that consumers pump less energy per gallon of hotter fuel than cooler fuel. This conclusion is based on the premise that gas expands as temperatures rises and that the standard gallon of gasoline is 231 cubic inches. Therefore at 80 degrees the 231 inches will contain less BTU’s of energy then it will at 60 degrees. The minority does not dispute this finding. However, the minority does question the accuracy of the conclusion that this necessarily results in a measurable loss to retail consumers. An alternative view is to recognize that

upon receipt of a tankard of gasoline and facing a strong priced based competition from other retailers, there is a natural market clearing price for a retailer to sell his product. Therefore, much of the “hot fuels” argument centers on the appropriate price term. However, simply changing this term will not change the underlying economic realities and market dynamics.

For example, if a tank truck of gasoline is delivered to the gas station containing X volume at Y price, without temperature correction, it will be sold to Z customers at the equilibrium market clearing price. For a retailer to remain in business, this price must exceed all fixed and variable costs and return some amount in profit.

However, if the owner of the gas station is required to install temperature corrected dispensers, then they still have X volume to sell, for which they paid Y price. However, they will now sell that gasoline to Z customers for a new market clearing price, which will have to account for the added cost of compliance with the mandate. This market clearing price still must exceed all fixed and variable costs and return some amount in profit, otherwise the retailers will simply close their doors.

To draw the example out one additional step, consider this simplified hypothetical. If a retailer purchases 1,000 gallons of gasoline at a cost of \$2,500, at minimum he must recoup \$2,500 in order to cover his investment. If the fuel is not temperature corrected, and there is some expansion due to volatility, then the retailer might sell 1010 gallons at the price of \$2.48 in order to cover the cost of his initial investment. ( $1010 \times 2.48 = 2500$ ). However, if the retailer is now selling temperature corrected gasoline, he will sell the 1,000 gallons (at 60 degrees) at \$2.50 in order to cover the cost of the initial investment ( $1000 \times 2.50 = 2500$ ). (Please note that the hypothetical assumed that there was no additional cost to the retailer for the installation of dispensers, or any other fixed or variable cost. Accounting for such expenses would increase the cost to the supplier, and thus put additional upward pressure on the price of retail gasoline.) Therefore, the debate at issue in today’s hearing is essentially about a price term.

#### Cost Benefit Analysis

However, assuming that the assertion of the majority that “hot fuel” does harm the consumer, the next appropriate question to ask is what is the measurable harm to the consumer and what is the likely cost of the “solution.”

While Public Citizen, a left of center advocacy group that has been active on this issue has estimated that, “given an average of 4 dispensers per gas station, the conversion cost per station is between \$4,400 and \$7,300,” NACS has estimated that each electronic dispenser is approximately \$3,000 each- bringing the cost of conversion per station to \$12,000. In either case, the cost of conversion remains a significant percentage of average profits- between 13% to 35%- using the industry average profits of \$33,400. On the margin, this additional cost would inevitably drive some retailers out of business, and possibly decrease access to gasoline in the less profitable areas, likely in rural areas. Indeed, there are anecdotal reports that high gas prices have already caused some gas

station owners to stop selling fuel. Policy makers should not lose sight of the fact that additional regulatory burdens will always have this type of impact on small business owners who are only marginally profitable. Ironically, it is the refiner owned/operated locations that will be most able to absorb the higher compliance burden if the government were to mandate installation of temperature corrected dispensers.

On the benefit side of the equation, as discussed in the Market Economics section of this memo, it is not clear what benefit will accrue to the consumer as a result of this mandate.

#### **Other Witnesses**

Please note that the Owner Operated Independent Truck Drivers Association, who is providing witness testimony, represents an industry that is currently involved in class action litigation alleging that the lack of temperature adjustment at the pump perpetrates a fraud on consumers.

Finally, the National Conference of Weights and Measures is a standard setting body, not a regulatory body. They have considered and rejected adopting model rules on temperature indexed retail gasoline on two prior occasions, but will again consider "Hot Fuels" as an information item at their July 2007 meeting.

There are additional concerns that are beyond the scope of today's hearing regarding the market confusion that could result by mandating either a permissive or mandatory compliance structure. However, the minority invited Mr. Tim Columbus to testify in his capacity as General Counsel to the National Association of Convenience Stores and the Society of Independent Gasoline Marketers of America in order to round out the presentation of this policy question.

If you have any questions, please feel free to contact Kristina Husar on the Minority Staff at 5x5074.

**DARRELL E. ISSA**  
49TH DISTRICT, CALIFORNIA

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**Congress of the United States**  
**House of Representatives**  
Washington, DC 20515-0549

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THE DISTRICT OF COLUMBIA

COMMITTEE ON THE JUDICIARY  
SUBCOMMITTEES:  
COURTS, THE INTERNET & INTELLECTUAL PROPERTY  
CONSTITUTION, CIVIL RIGHTS, &  
CIVIL LIBERTIES

REPUBLICAN POLICY COMMITTEE

June 8, 2007

**Remarks for Ranking Member Darrell Issa**  
**Domestic Subcommittee Oversight Hearing**  
**“Hot Fuels: Big Oil’s Double Standard for Measuring Gasoline”**

I want to thank the Chairman for holding this hearing to increase the public’s awareness of all the issues relevant to the subject of “Hot Fuels.” However, I would like to express my deep regret that this hearing was rescheduled for a Friday morning, a day when there are no votes on the House Floor. The obvious result is that many Members of Congress will be traveling back to their districts, and unable to participate in the hearing.

As “Big Oil” is referenced in the title of the hearing, “Hot Fuels, Big Oil’s Double Standard for Measuring Gasoline,” one would think that the target of today’s hearing is “Big Oil.” However, I want to make it very clear that today’s conversation has very little to do with the collective entities popularly known as “Big Oil.” So if we are not talking about “Big Oil” today, with their record profits, who are we talking about? Very simply, we are talking about the retail gasoline industry. This industry is highly competitive and dominated by small business owners. While many of these retail establishments bear the trademarked name of “Chevron” “Texaco” or “Shell,” most convenience stores are franchise units. In fact, 57% of convenience stores are single store companies and less than 10% of retail outlets are owned by integrated oil companies.

These companies are very much impacted by the high price of fuel. According to the 2007 National Association of Convenience Stores (NACS) State of the Industry Report for 2007, the average convenience store/ retail petroleum outlet in the U.S. generated a pre-tax profit of only \$33,400 in 2006. While collectively the convenience store industry saw a rise in sales due to the high cost of gasoline, profits actually fell by 23% industry wide. I question the circuitous logic to attack “Big Oil” through convenience stores, whose profit margins on coffee, hotdogs, and pizza are much greater than on a tank full of gas.

Why did their profit margin fall? There are several reasons ranging from credit card processing fees, to high wholesale prices. These two factors alone are the primary reasons that the industry is experiencing its lowest profit margin since 1983. In fact, overall convenience store industry profits, including in store sales and sales at the pump, were \$4.8 billion in 2006, while the credit card companies made \$6.6 billion in fees from

convenience stores! But you don't hear our friends in the majority railing against "Big Visa" or "Big Mastercard," for driving up prices at the pump.

Clearly it is inaccurate to describe the debate over "Hot Fuel" as one of "Big Oil" vs. the American Consumer. It is just as inappropriate to think that "Big Oil" can afford the remedy, because they are not the ones that are going to pay for it. It is convenience store and gas station owners and who are the focal point of this debate over "Hot Fuel."

So since convenience stores and gas station owners are the true target of this hearing, the next appropriate question to ask is "what are we asking of them and why?"

I understand that Public Citizen, who has been active on this issue, has estimated that "given an average of 4 dispensers per gas station, the conversion cost per station is between \$4,400 and \$7,300." While NACS has a higher estimated cost, let's assume Public Citizen's numbers are correct. Using Public Citizen's own estimates, the cost of conversion remains a significant percentage of average profits- between 13% to 21%- using the industry average profits of \$33,400. On the margin, this additional cost would inevitably drive some retailers out of business, and possibly decrease access to gasoline, particularly in the less profitable rural areas.

Policy makers on the left and the right should never lose sight of the fact that additional regulatory burdens will always have this type of impact on small business owners who are only marginally profitable. Ironically, it is the refiner owned/operated locations that will be most able to absorb the higher compliance burden if the government were to mandate installation of temperature corrected dispensers.

Therefore, Mr. Chairman, while you pursue this line of inquiry, please do not assume that just because "Big Oil" is making record profits, that they are one and the same as independent gas retailers, who for the most part are entrepreneurs, currently struggling to survive under challenging market conditions.

**DARRELL E. ISSA**  
48TH DISTRICT, CALIFORNIA

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Washington, DC 20515-0549

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REPUBLICAN POLICY COMMITTEE

June 8, 2007

The Honorable Dennis Kucinich  
Chairman, Domestic Policy Subcommittee  
Committee on Oversight and Government Reform  
2445 Rayburn House Office Building  
Washington, D.C. 20515

Dear Chairman Kucinich:

This letter is intended to inform you of my deep regret that this hearing has been rescheduled for a Friday morning, a day when there are no votes on the House Floor. The obvious result is that many Members of Congress will be traveling back to their districts, and unable to participate in the hearing. In a Democracy whose lifeblood is fueled by the market place of ideas, Committee practices that stifle or preclude full debate should be avoided at all cost.

Furthermore, I am frustrated that you have substituted the small business retailers of gasoline (Seven-Eleven, Wawa, Sheetz, and others that make up the convenience store industry) for the true "Big Oil" companies, over which you claim to be conducting oversight, but who declined your invitation to testify on this issue of intense national concern.

Perhaps I should not be so concerned about today's hearing, which one could describe as being frivolous, for at least it is a step above some Full Committee Hearings, which approach fraudulence. As one prominent newspaper editorial board observed in the wake of Wednesday's hearing on the prescription drug Avandia, "The Waxman approach is clear: come up with possible safety problems with questionable statistical approaches; share then with friendly members of Congress and editorialists who will use the findings to attack FDA; hold hearings in order to put companies on the defensive and generate more lawsuits."

The same criticism could be leveled at today's hearing, or at least its title, except we have actually added one level of absurdity. As "Big Oil" is referenced in the title of the hearing, "Hot Fuels: Big Oil's Double Standard for Measuring Gasoline," one would

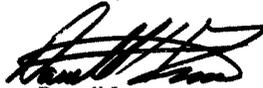
think that the target of today's hearing is "Big Oil." However, I want to make it very clear that today's conversation has very little to do with the collective entities popularly known as "Big Oil." While many retail gas establishments bear the trademarked names of "Chevron" "Texaco" or "Shell," most convenience stores are franchise units. In fact, 57% of convenience stores are single store companies and less than 10% of retail outlets are owned by integrated oil companies. Put simply, we are today talking about the retail gasoline industry. This industry is highly competitive and dominated by small business owners. These companies are very much impacted by the high price of fuel.

Policy makers on the left and the right should never lose sight of the fact that additional regulatory burdens will always have this type of impact on small business owners who are only marginally profitable. Ironically, it is the refiner owned/operated locations that will be most able to absorb the higher compliance burden if the government were to mandate installation of temperature corrected dispensers.

Therefore, Mr. Chairman, while you pursue this line of inquiry, please do not assume that just because "Big Oil" is making record profits, that they are one and the same as independent gas retailers, who for the most part are entrepreneurs, currently struggling to survive under challenging market conditions. Anything short of this acknowledgment is dangerously close to going from the frivolous to the fraudulent.

I request that my statement be inserted into the record for today's hearing.

Sincerely,

A handwritten signature in black ink, appearing to read "Darrell Issa", written in a cursive style.

Darrell Issa  
Ranking Member  
Domestic Subcommittee  
Oversight and Government Reform

Partnership for Uniform Marketing Practices  
(P.U.M.P.) Coalition

*Written Statement (with Enclosure) for Submission to the Hearing Record  
For the House Subcommittee on Domestic Policy  
Hearing on June 8, 2007  
"Hot Fuels: Big Oil's Double Standard for Measuring Gasoline"  
(See Below for the Undersigned Members of the Coalition)*

June 7, 2007

The Honorable Dennis Kucinich  
Chairman  
Subcommittee on Domestic Policy  
House Committee on Oversight and Government Reform  
U.S. House of Representatives  
2157 Rayburn H.O.B.  
Washington, D.C. 20515  
ATTN: Jaron Bourke

Dear Chairman Kucinich:

I am writing to you on behalf of a coalition of interested trade associations who have joined together to ensure fair competition, cost effective distribution of fuel and equitable treatment of consumers in addressing the issue of temperature variation in the sale of gasoline and diesel fuels. This group, the "Partnership for Uniform Marketing Practices" (P.U.M.P.) coalition, would like this letter to be included as part of the hearing record for the June 8, 2007 hearing held by your subcommittee on the issue of "hot fuels."

We appreciate your efforts to examine the issue of automatic temperature compensation at retail. However, we urge you to suspend further congressional action, pending the outcome of the National Academy of Science study; consideration of the issue by the National Conference of Weights and Measures; and a new study being requested by the State of California on the matter.

To begin, we would like to make clear that this issue is not "big oil versus the truck driver/consumer." In fact, the large integrated oil companies only own and operate fewer than 8 percent of the nation's retail outlets. Instead, this issue directly affects the independent petroleum retailing community, many of whom are small family-owned businesses.

Representative Bart Gordon (D-TN), Chairman of the House Science and Technology Committee has asked the National Academy of Sciences (NAS) to study the issue. This study will examine the costs and benefits of temperature compensation. We believe that this study will demonstrate that automatic temperature compensation (ATC) will increase the costs borne by fuel consumers. These additional costs would result from the installation of the ATC equipment and from the increase in state administrative expenses required to enforce such a program.

Additionally, varying fuel temperature compensation requirements from state-to-state and jurisdiction-to-jurisdiction would disadvantage consumers and create consumer confusion over fuel dispensing. Consumers currently rely on exterior price signs to comparison shop. Permissive temperature compensation will create ambiguity and lead to unequal cost and volume delivery standards from location-to-location.

These real costs to the consumer must be compared to any potential benefits from ATC before any decision is made relative to the temperature compensation issue. Congress should thoroughly examine all aspects of this complex issue before legislating a significant change to the way fuel has been sold for decades.

Only after a careful examination of the facts surrounding the issue should we further consider the role of fuel temperature compensation at the retail pump. Without this important information, we may find that consumers are disadvantaged by temperature compensation equipment. In fact, Australia conducted such a study and determined that the benefits of ATC did not overcome the expense of implementing it.

The coalition is interested in establishing the facts on this issue instead of relying merely on unverified and unsubstantiated data that has been distributed by some groups in this debate. We urge your subcommittee to assist the NAS in any way possible to establish the facts about fuel temperature, BTU content and other factors affecting fuel economy and consumer value.

P.U.M.P. members oppose the permissive use of fuel temperature compensation devices at the retail level in the United States. Permissive temperature compensation will most certainly disadvantage consumers and could actually interfere with the competitive marketplace.

The National Conference on Weights and Measures (NCWM) also will consider the issue of permissive temperature compensation at the retail fueling level during its July 8-12, 2007, meeting in Salt Lake City, Utah.

In addition, legislation has been introduced in California which would require a comprehensive study of the issue. This study will focus upon geographic temperature variances, available temperature compensating technologies and a cost-benefit analysis to determine whether fuel temperature compensation is needed. This bill was introduced, in part, due to concerns over California fuel temperatures, as raised by Senator Boxer in a letter to California legislative leadership. The bill is being co-sponsored by the California Independent Oil Marketers Association (CIOMA), a founding P.U.M.P member. The California study results are due at the end of 2008.

In advance, we thank you for including our statement in the hearing record for your July 8, 2007 hearing on "Hot Fuels: Big Oil's Double Standard for Measuring Gasoline." Also, we urge you to include Chairman Gordon's letter of request to the National Academy of Sciences in the hearing record, as well.

Thank you for allowing this statement and the enclosed letter to the National Academy of Sciences to be included in the hearing record for the June 8, 2007 hearing.

Sincerely,

**The Partnership for Uniform Marketing Practices (P.U.M.P.) Coalition**

*(Please see the undersigned coalition members)*

American Trucking Associations (ATA)

Arizona Petroleum Marketers Association (APMA)

Arkansas Oil Marketers Association, Inc. (AOMA)

California Independent Oil Marketers Association (CIOMA)

Colorado Petroleum Marketers and Convenience Store Association (CWPMA)

Empire State Petroleum Association (ESPA - NY)

Florida Petroleum Marketers & Convenience Store Association, Inc. (FPMA)

Fuel Merchants Association of New Jersey

Illinois Association of Convenience Stores/Illinois Petroleum Marketers Association

Indiana Petroleum Marketers and Convenience Store Association, Inc. (IPCA)

Kentucky Petroleum Marketers Association (KPMA)

Michigan Petroleum Association/Michigan Association of Convenience Stores (MPAPACS)

Mid-Atlantic Petroleum Distributors Association

Minnesota Petroleum Marketers Association (MPM)

Mississippi Petroleum Marketers & Convenience Stores Association (MPMCSA)

Missouri Petroleum Marketers and Convenience Store Association (MPCA)

National Association of Convenience Stores (NACS)

National Association of Shell Marketers (NASM)

National Tank Truck Carriers, Inc. (NTTC)

NATSO, Inc., Representing Travel Plazas and Truckstops

Nebraska Petroleum Marketers & Convenience Store Association (NPCA)

Nevada Petroleum Marketers & Convenience Store Association (NPM & CSA)

New Mexico Petroleum Marketers Association

Ohio Petroleum Marketers & Convenience Store Association (OPMCA)

Oklahoma Petroleum Marketers & Convenience Store Association (OPMCA)

Petroleum & Convenience Marketers of Alabama (P&CMA)

Petroleum Marketers & Convenience Stores of Iowa (PMCI)

Petroleum Marketers and Convenience Store Association of Kansas (PMCA)

Petroleum Marketers Association of America (PMAA)

Society of Independent Gasoline Marketers (SIGMA)

South Dakota Petroleum & Propane Marketers Association/

South Dakota Association of Convenience Stores SDP2MA-SDACS)

Tennessee Oil Marketers Association (TOMA)

Texas Petroleum Marketers & Convenience Store Association (TPMCSA)

Utah Petroleum Marketers & Retailers Association

Virginia Petroleum, Convenience and Grocery Association (VPCGA)

West Virginia Oil Marketers and Grocers Association (OMEGA)

Wisconsin Petroleum Marketers & Convenience Store Association (WPMCA)

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cc: The Honorable Darrell Issa, Ranking Minority Member, House Subcommittee on Domestic Policy

Enclosure

BART GORDON, TENNESSEE  
CHAIRMAN

RALPH M. HALL, TEXAS  
RANKING MEMBER

U.S. HOUSE OF REPRESENTATIVES  
COMMITTEE ON SCIENCE AND TECHNOLOGY

SUITE 2320 RAYBURN HOUSE OFFICE BUILDING  
WASHINGTON, DC 20515-6301  
(202) 225-6375  
TTY: (202) 225-4410  
<http://science.house.gov>

May 30, 2007

Dr. Ralph J. Cicerone, President  
National Academy of Sciences  
500 Fifth Street, NW  
Washington, DC 20001

Dear Dr. Cicerone,

Recent increases in the price of transportation fuel, particularly gasoline and diesel fuel, have created a great deal of sensitivity about equitable and reasonable pricing of these fuels. As a part of the public discussion about fuel pricing, questions have been raised about issues related to retail pump temperature variations and their impact on volume of fuel sold at retail outlets. More specifically, some have argued for the broad use of automatic temperature compensation (ATC) devices at retail transportation fuel distribution outlets.

Although I believe it is important to ensure fair and transparent pricing, I am concerned that adequate scientific analysis has not been completed to determine whether a problem exists and if ATC devices are necessary. The absence of adequate information has prompted some to advocate for government requirements for temperature adjusted volume of motor fuel. Advocates have argued that fuel sold at temperatures greater than 60 degrees Fahrenheit expands, resulting in the delivery of less product to the consumer. The petroleum retailing industry, however, asserts that such variations in the measured volume of a gallon of motor fuel are minimal and that converting the infrastructure to adjust for temperature would be cost prohibitive and detrimental to the market.

I am concerned that the use of automatic temperature compensation devices, whether mandatory or permissive, is premature. Documentation of whether a problem exists is surely a better first step than the deployment of devices that would impose a large financial burden to retailers and may not in fact be beneficial to consumers.

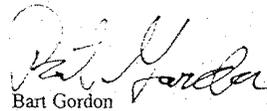
Therefore, I am writing to request that the Academy conduct a study to determine whether a problem exists and whether the broad use of ATCs is warranted. I would request that you examine the following issues:

Dr. Cicerone  
National Academy of Sciences Study Request  
May 30, 2007  
Page 2 of 2

- Determination of actual variations in temperature of dispensed fuel
- Factors influencing dispenser temperature, such as tank temperatures
- Geographic and diurnal temperature factors
- Seasonal temperature variations
- Fuel purchasing patterns of consumers and commercial vehicle operators
- Relative impacts of other fuel aspects affecting BTU delivery, including alternative fuels, fuel additives, transportation methods, delivery methods, and specific delivery equipment
- Analysis of the ambient temperatures at the nozzle and deviation of that temperature from the temperature of the fuel in the underground storage tank
- Analysis of actual temperature variation over a defined time period across the country
- Possible alternatives to the use of Automatic Temperature Compensator equipment, including adjustment of reference temperatures for currently utilized devices

I appreciate your attention to this matter and look forward to reviewing your findings. In the interim, please feel free to contact Louis Finkel of my committee staff at (202) 225-6375 with any questions or for clarification regarding this request.

Sincerely,



Bart Gordon  
Chairman

BG/lf