COMMONWEALTH OF PENNSYLVANIA
HOUSE OF REPRESENTATIVES
SUBCOMMITTEE ON TRANSPORTATION SAFETY

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In re: Federal Clean Air Act 1990

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Stenographic report of hearing
taken in Room 202, City Hall,
Philadelphia, Pennsylvania

Thursday
March 26, 1992
10:00 a.m.

HON. KEITH R. MCCALL, CHAIRMAN

MEMBERS OF SUBCOMMITTEE ON
TRANSPORTATION SAFETY

Hon. Richard Hayden
Hon. Dick L. Hess

Also Present:

Bob Hollis, Executive Director, Northeast Delegation
Paul Parsells, Executive Director Transportation Committee
Paul Landis, Executive Director, Transportation Committee, Minority

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CHAIRMAN MCCALL: Good morning. I would like to call this hearing to order. My name is Keith McCall. I am a Representative from the 122nd Legislative District and Chairman of the House Subcommittee on Transportation Safety charged with taking testimony on the 1990 Clean Air Act Amendments. Seated to my right is Representative Hayden, Richard Hayden, who is doing the stationary s o u r c e legislation. I will be doing the mobile source legislation. To my left is Bob Hollis, who is the Executive Director of the Northeast Delegation and here helping us with testimony.

For a matter of public record, this public hearing has been sunshined and we have that notice up here.

Welcome to today's hearing. I would like to take this opportunity to thank Mayor Rendell for the use of his beautiful reception room and the willingness of his staff to accommodate all of our needs.

The purpose of this public hearing is to explore the impact of the Federal Clean Air Act of 1990 as it relates to Pennsylvania in one specific area.

The charge of this Subcommittee is to analyze and define how the issue of mobile source emissions can be controlled and reduced in order to meet federally mandated guidelines.

Just to give a little bit of background, the Clean Air Act amendments, otherwise known as the Clean Air

Act of 1990, was signed into law on November 15, 1990.

After the EPA developed and issued minimum standards for inclusion in state auto emission plans in 1991, states had up to one year to develop and submit new proposed standards to the EPA that incorporated new criteria under the Act.

New state auto emission plans are expected to be implemented no later than two years from the date of enactment of the legislation which would be November 15, 1992.

Currently, annual auto emission tests are required in only eleven counties. These tests are performed at state authorized motor vehicle inspection stations, typically gasoline stations and auto repair shops at a state regulated price of $8 for each test. However, as a result of the Clean Air Act of 1990, 33 counties will require emission testing in Pennsylvania.

So, in continuing with testimony from those associated with this issue either in the automotive industry, environmental groups or consumer advocates, we'll hear from representatives from Texaco, AAA, and the American Lung Association to name a few.

The first to testify today is George Seidel of the Petroleum Industries of Pennsylvania, and with him, Michael Redemer, manager of the Air Quality Control Program at Texaco, U.S.A., who will present testimony about

California's auto emission standards and inspection procedures.

Gentlemen, welcome.

Would you identify yourself for the record?

MR. SEIDEL: George Seidel, Associated Petroleum Industries of Pennsylvania. When the Committee expressed an interest in having a presentation on California standards, preferably someone who was from California and involved with the program out there, I couldn't think of anyone better than Michael Redemer. Mike is a native of California having grown up in the San Joaquin Valley out there and has a masters in environmental engineering from USC and worked for a number of years in the late '70's and early '80's for the California Air Resource Board or CARB which we associate with these standards and the other environmental air programs in California.

He is actively involved at both the state and the federal level with legislation and regulations involving air quality. So, we are pleased that Michael is available to come in from California and to talk with you about the California standards. Manager of Air Quality Programs for Texaco since 1987. Mike.

MR. REDEMER: Good morning. Mr. Chairman, members of the Committee, my name is Michael Redember and I am the Manager of Air Quality Programs for Texaco. I happen

to be based in Universal City, California which is about eight miles north of downtown Los Angeles. As George has mentioned, I have lived in California my whole life and have been involved with air pollution problems in California since 1972. So, I have about 20 years of various experience. Most recently working in the industry trying to deal with some of these issues from the standpoint of the petroleum industry in the business community.

When I was asked to come and testify today, I must admit a certain lack of familiarity with the specific air quality problems in Pennsylvania having spent most of my career in California. And so, in an effort to educate myself before coming before you today, I did go through some data and looked briefly at the severity and duration of all three ozone and carbon monoxide problems in Pennsylvania compared to what we have in California to try to get a feel for the differences and similarities between the two.

As you probably know, motor vehicles are primarily responsible for creating volatile organic compounds and NOX which create ozone, and, of course, carbon monoxide. If I'm allowed, I would like to show you some slides. My initial comments will relate more to the air quality issue, but I will get into the motor vehicle program in the latter part of my testimony. As I said, I did want to take a look at the difference between the air

quality problems in the two areas. So, what I did was, first of all, look at the severity of the exceedances that you experience here in Pennsylvania compared to the severity of the exceedances that we commonly see in California. From this first slide you can see I have characterized, I apologize for the fuzziness but there is nothing I can do about it. These are basically ozone design values which are basically the planning levels. What do you use as a target that you have to deal with for Pittsburgh, Philadelphia and Allentown compared to design values for Southern California as represented in the two boxes. The horizontal green line represents the federal ozone standard. That is kind of the level we have got to get under to make a goal.

As you can see from this chart, I also have a peak one-hour ozone standard which is I was told is probably one of the worst ozone episodic years you have experienced in Pennsylvania for a number of years. As you can see in Southern California, we exceed the design levels in Pennsylvania by almost a factor of two. So, we have extremely high levels. We are talking 35 parts per million -- no, that is not right, .35 parts per million. However, I should point out Southern California has come a long way since historically we used to get up around .45 or .5. So, in the last ten to 15 years there have been strides made because of the various progressive controls to improve the air quality.

CHAIRMAN MCCALL: What was the source of that information?

MR. REDEMER: The source of this information is basically some data that I got from the American Petroleum Institute. It is based on air quality and monitoring data that is collected by the Southwestern Quality Management District, the bars on the right-hand side and the data on the left-hand side, I believe comes from the Environmental Protection Agency.

The next thing I wanted to look at is how many days a year do we violate that horizontal green line. So, I looked at the three worst areas in Pennsylvania and compared them to three, I would say typical, although typical to bad areas in Southern California. And you can see the three boxes in the back represent Southern California and there again we have Redlands, Pasadena and Azusa. And you can see in 1988 they exceeded the standards on about 120 to 135 days a year. It improved slightly as we moved into 1990 but we are still talking about exceedances in the neighborhood of 80 to 100, 120 days. The 1991 data is incomplete because I couldn't get the fourth quarter. And you would have exceedances in Southern California in the fourth quarter. So, that is not entirely representative.

But I think a significant point here is you look at the three boxes in front. Those represent the air

quality situations in Pittsburgh, Philadelphia and Allentown. Now, what it shows is we may have had 120 days in Azusa, we only had in 1988 ten days in Allentown and in fact, 1990 Allentown dropped to zero, Pittsburgh dropped to zero, Philadelphia experienced four days in which there were exceedances in the federal standards. So, basically what we are looking at is sort of an order of magnitude of difference in terms of the air quality problem. Again, this is my preliminary analysis. I haven't done a lot of detail, but the data pretty well speaks for itself.

The other pollutant I wanted to look at was carbon monoxide. And again, carbon monoxide comes primarily from motor vehicles and this basically is the design level, peak levels of carbon monoxide we have experienced. I picked Los Angeles which is the worst city in California and compared it to Philadelphia which is the worst city in Pennsylvania in terms of carbon monoxide.

(Laughter.)

MR. REDEMER: You will notice Los Angeles is much worse. Again, the federal standards represented by the horizontal red bar, 9, and as you can see, per peak hour exceedances in Los Angeles is almost double what you are experiencing in Philadelphia and Philadelphia is at 11.5. The standard is about 9. So, with the oxygenated fuels program coming on line this next fall, hopefully, we will see some

improvement in those values. That problem should decline. The other question is, how many days did Philadelphia exceed the standards. I only had data from the last two years. Again, this data came from data collected by the Southwest Air District and EPA records.

You can see in 1990 Los Angeles exceeded the carbon monoxide standards by 40 days during that year. Not as severe as ozone but it is still not inconsequential. Philadelphia did not experience exceedances of the carbon monoxide standard in 1990.

For 1991, again, the data is incomplete. I don't have the fourth quarter but up through the third quarter Philadelphia had experienced no exceedances of carbon monoxide standards. Los Angeles had eight. I would expect there were probably some additional ones in Los Angeles. I don't know, again, about Pennsylvania. But again, we are talking order of magnitude difference in the severity of the problem.

So, what conclusion does this lead one to? It is like they say lately, I know California. Let me tell you Pennsylvania is not California. But basically California's problem is not the equivalent of the problem in Pennsylvania. At least looking at the ozone and carbon monoxide. So, with that as background in trying to educate myself, I wanted to get on to talking about the program in California has adopted

to deal with extremely severe ozone problems that we saw in Southern California.

Basically, the California Low Emission Vehicle Program consists of four major elements. There is the motor vehicle fleet performance standards. You are probably familiar with those as the .125 TLEV, LEV, ULEV, which is low emission vehicle transitional auto emission. I will explain that in more detail. Those are the performance standards autos have to meet.

The second is a concept called a reactivity adjustment factor that ARB is proposing to apply to those emission performance standards. The third component is reformulated gasoline regulations that have been adopted.

And finally, our provision for alternative fuels.

The motor vehicle standards adopted in California are probably the most aggressive in the United States. Currently, if you look at everything above my hand, those are the standards that are currently in place. Now, let me explain one thing. This NMHC is what you call volatile organic compounds. We use a different term out there. It has to do with a lot of technical stuff. Essentially the volatile organic compounds standards are currently at .39 and they are going to drop to .25 in 1993. Those are already on the books. What ARB did last year was adopt a new set of low emission

vehicle standards. And those are represented by everything under NMOG, which is another term for volatile organic compounds. There was a major change when they did that for two reasons. The automobiles, every car that was sold had to meet those upper two rows of standards up through 1993. So, no matter if you bought an eight cylinder Cadillac or a four cylinder Toyota, they all had to meet those emission performance standards. With the adoption of the LEV Program, California also adopted provisions that required averaging. So, what that means is, based on the sales of the individual motor vehicle manufacturers, his cars that he sells in the market have to average those lower three rows of standards over time and they get progressively more stringent as you go through time.

This creates kind of a new dimension to the whole motor vehicle control program because now every vehicle may not have the same emission performance. Depending on how that manufacturer decides to sells vehicles in that market some may be high or some may be low. So, it is a bit of a departure from the historical all cars being the same standard.

CHAIRMAN MCCALL: What is the cost associated with that? Do you have any idea?

MR. REDEMER: CARB has estimated some costs, the numbers I have seen brought to $20,000 per ton of VOC and

NOX. I am sure the autos have some numbers. That is probably ball park. It could be higher. It could be a little lower. It is not a trivial --

CHAIRMAN MCCALL: For the manufacturers to meet those standards do they have any idea what is the cost for the manufacturers to meet those standards?

MR. REDEMER: I wouldn't want to represent what the manufacturers would talk about their cost. I do know they have expressed some concerns. One of the provisions that you have to certify for 100,000 miles and that creates some tremendous problems from a design standpoint to build a system that is basically full proof. That is one of the major concerns that the autos have, particularly those very low, .04, .02 NOX numbers. People would argue that the zero emission vehicles which are essentially the electric vehicles, the technology doesn't exist. Of course, California has always prided itself on technology forcing. So, a part of these are to force technology in the market. I really can't address --

CHAIRMAN MCCALL: Is it possible to obtain that, that .02 on the NOX?

MR. REDEMER: It is theoretically possible I guess. Again, to maintain that for a 100,000 mile warranty is extremely problematic. So, the autos are really in better position to address how they were going to meet those

standards, but it does pose some tremendous challenges for them.

I should also point out that under the Federal Clean Air Act in 1994, basically, all the nonattainment areas in the country are going to have to go to this standard. So, that standard will lower motor vehicle emissions regardless of any action by individual states.

So, those are essentially the motor vehicle standards and the key thing is we are going from the absolute standard for every vehicle to an averaging concept with increasingly more stringent specifications and longer warranties.

Now, when the ARB adopted these specifications they also put some bells and whistles on. One of the big bells and whistles is a thing called the reactivity adjustment factor. I don't want to get into a great deal of detail on this, but this reactivity adjustment scheme basically is based on the assumption that not all volatile organic compounds are created equal. That some volatile organic compounds emissions from cars emit ozone more rapidly than others. It is a great theory. So, ARB adopted a mechanism to adjust those emissions standards I showed you on the previous chart based on the type of components that come out of the exhaust. They say that is a function of the fuel that goes into the car. So, they

created a mechanism to adjust those standards based on reactivity adjustment factors and there are some problems with this. First of all, they haven't defined what those factors are going to be. So, we don't know yet exactly how all these things are going to be adjusted.

Secondly, there is considerable scientific uncertainty and debate over the exact mechanism that ARB is proposing to adopt. And we have taken some fairly strong exceptions. There have been a number of scientists that have really expressed some concerns about assigning one factor to fit all vehicle fuel types.

I guess the last point I want to make is these factors, even if they were appropriate, would be regional specific. So, the factor that you would want to assign to Los Angeles or California might not be the same factor you want in Pennsylvania. Extremely technical, don't want to spend a lot of time on this. It is just another aspect of their control program you need to be aware of. If you have any scientists on your -- I would be happy to share a lot of information on this.

The third component to the Low Emission Vehicle Program, and one that is very dear to our heart, is Phase 1 and Phase 2 California reformulated gasoline standards. I don't want to get you confused with the federal standards. California has adopted their own

specifications.

CHAIRMAN MCCALL: Is California more stringent?

MR. REDEMER: California is more stringent. They adopted two phases. The first phase was adopted back in, I think, early 1990 or '89. It was effective January 1st of this year. And basically it required a lower vapor pressure on gasoline which would reduce the evaporative emissions. There is a deposit control additive required and they basically got rid of leaded gasoline. Our industry essentially supported that. We felt it was cost-effective and made sense and it was something that we basically didn't have any problems with.

However, more problematic was the second phase of regulations for gasoline. And as you can see, they basically adopted the specifications, a recipe for eight different components in gasoline which makes it extremely difficult to produce gasoline. The emission reduction benefits are fairly small. We estimate I think less than four percent of the total inventory and the cost per ton has been estimated to be anywhere from 50 to 150 to $200,000 per ton of emissions reduced. So, it has been a subject of a great deal of debate in California in terms of adopting and implementing these specifications.

CHAIRMAN MCCALL: These standards, how are they

adopted, by regulation or through legislation?

MR. REDEMER: They were adopted by regulation. The Air Resources Board has been authorized in California, it is a board that is appointed by the governor and the legislature to basically hold hearings, take testimony and then they promulgate regulations. So, they held a series of public hearings on each of these items we have discussed and basically taken testimony from the public.

CHAIRMAN MCCALL: Was there any legislative oversight?

MR. REDEMER: They were implemented, yes, under current statutory authority they would be basically operating under the legislature.

The last piece, and I won't spend a lot of time talking about it, is the alternative fuel program which is part of the low emission vehicle clean fuel strategy. Its purpose really is to ensure that alternative fuel such as M85 which is methanon and gasoline. compressed multiple gas and other types of fuels, if vehicle manufacturers decide to sell those vehicles in California, there is a provision that the fuels have to be provided. Again, it is not something I want to spend a lot of time on, but it is an element of the overall Low Emission Vehicle Program and I guess for energy policy reasons since we have a very aggressive Energy Commission in California, that was put into the Low Emission

Vehicle Clean Fuel Program.

So, in conclusion I guess what I was trying to do is provide an overview of the Low Emission Vehicle Clean Fuel Program and it is not just standards, it is all four of these elements. And so, those elements really describe the benefits and the cost of this program which we believe for LEVs and fuel specs run from the high to the extreme range in terms of cost-effectiveness. I think there are other types of measures such as basic vapor recovery, probably lowering vapor pressures, enhance inspection maintenance, possibly vehicle (inaudible) would be much more cost-effective in terms of trying to wrestle with the problems at least as Pennsylvania has them compared to some of the more extreme measures that California may feel is appropriate.

Based on my brief review of the air quality data, it is critical I think that an accurate emission inventory be prepared for any state who wants to environmentally accept (inaudible). You have to actually find the problem to find the answer. I really encourage that to be done and whatever resources are necessary, you have got to have a good emissions inventory. If you don't know what is creating your emissions, you can't appropriately control them.

BY CHAIRMAN MCCALL:

Q Does California have an emission inventory?

A They have a very extensive emission inventory. Actually, they first started doing fairly detailed emission inventories in the mid '70's and they have gotten increasingly more sophisticated. They have spent a lot of resources in keeping their inventory up to date and tracking.

Q Was their inventory justified with their costs?

A Well, I guess that is a matter of debate. I think, I mean, clearly the ozone problem is very extreme in the South Coast Air Basin. Some of the models, chemical models, where you can kind of play games, what if, what if they took these emissions out and run a model and it predicts what your ozone will look like. Some of those models estimate you would have to take 80 percent of the VOCs out of the Air Basin in Los Angeles to retain the standards, 80 percent. Basically, they take a model, they shut all of the vehicles down, take them out, no emissions from vehicles, run a model and the improvements in air quality are on the order of ten, 15 percent.

Q When will the standards for the reformulated fuel take effect?

A March 1996.

Q '96?

A Which is a year after Federal Phase 1 reformulated gasoline is to be required.

Q When did they adopt the California Low Emission

Vehicle Program and followed that up? Do you have any data that speak to the impact of that?

A The California Low Emission Vehicle Program was adopted I believe in the fall of 1990. The fuel specifications were adopted September of 1991, November of 1991. I've got some rough estimates of the impact of the emission reduction for the Low Emission Vehicle Program. The Low Emission Vehicle Program in the year 2000 will have about a less than one percent reduction in the total volatile organic compounds inventory. The reason is those vehicles are phased in over time. The way it works is you see more benefits as you move out later in time. So, if you go out to the year 2010, the volatile organic impacts are a little less than six percent. So, you go from a little less than one percent to a little less than six percent.

BY REPRESENTATIVE HAYDEN:

Q What year is that?

A Well, that is that year. In other words, they basically have taken all their control measures and said, here is the reduction we expect over time. The remaining inventory left in the year 2000 or 2010, those are the relative numbers. The Phase 2 gasoline regulations are going to have, roughly, the numbers range between two and four percent reduction in the year 2000 and then those numbers drop in the future as vehicles get cleaner and fuel effects get

smaller and smaller. So, there is a diminishing return on the gasoline reformulation benefits. As you move through time and these old, dirty vehicles are removed from the marketplace, the benefits from the reformulated gasoline declines. So, it drops probably on the order of one percent or less in the year 2000. So, that is kind of a relative sense of what the benefits are in California.

Now, Pennsylvania, again, it is going to be a function for inventory and vehicle population and it is going to be a little bit different in California.

CHAIRMAN MCCALL: What is the menu on that inventory? What things should we be looking at as far as setting up an inventory?

MR. REDEMER: Well, for volatile organic compounds, clearly motor vehicles need to be inventoried and there are models that you can run that will predict what those emissions look like. It is pretty much standard. It has been used by California and other states. Then you have got your stationary sources and you can go through the chemical processing, obviously, refineries, gasoline stations, dry cleaning. California, they have gone to the extreme of dealing with things like charcoal lighter fluid and underarm deodorant spray. I don't know that they need to go that far. But clearly there is a whole canopy of sources. I think in the east coast, particularly in natural vegetation there is a

lot of volatile organics and those need to be accounted for because those are going to influence how you receive the program.

On the other side of the equation there are oxides and nitrogen. NOx, which is the other part of the ozone problem. And there again, you have combustion fired vehicles, obviously refineries, power plants, space heating for buildings, commercial and residential buildings. And there are ways you can deal with those in terms of predicting what the emissions are. So, to some degree it is going to be specific by county. But it is important that you try to account for as much as that so you can find the problem.

Those are basically my comments. Do you have any questions? I would be happy to try to answer them.

CHAIRMAN MCCALL: For the record, I would like to introduce a couple of more members. We have Representative Dick Hess, who is the Minority Chairman of the Subcommittee. Paul Parsells, who is the Executive Director of the House Transportation Committee and Paul Landis, who is the Executive Director of the House Transportation Committee on the other side. Welcome. Questions.

BY REPRESENTATIVE HAYDEN:

Q Mr. Redemer, you refer to ozone exposure days in Southern California. Then you went on to describe on one of your charts was Redlands, Pasadena and Azusa. Could you

give us some indication as to the size of the land mass which is encompassed when you talk about Southern California or does it go as far south as the Baja Peninsula to as far north as north of LA County? Could you give us some idea how far that is?

A Yes. The data that I represented probably represents the South Coast Air Quality Management District. It goes from Orange County in the south, I don't know exactly, I imagine the border of Orange County up to Kern County in the north to the San Fernando Valley. So, it is an area, oh, I guess, 50 or 60 miles long and maybe 70 or 80 miles wide.

The data on ozone nonattainment from California, that includes ozone experiences and other ranges within the state of California. The data that I showed you does not. I do have some slides to characterize that in other areas and I would be happy to --

Q Well, just generally, the San Francisco area has had problems with ozone nonattainment?

A Correct.

Q Any other parts of the state that have those problems?

A Yes. Well, basically the entire San Joaquin Valley Air Basin which runs from Bakersfield, Kern County in the south through Stockton, Sacramento County and the northern part of the state has experienced, although not at

these levels of severity, probably in those areas we are talking something in the neighborhood of 70 to 80 days a year violation. Still substantial but not 120 days. The Bay area experiences violations. The Ventura, Santa Barbara areas experience violations. It is fairly pervasive through the state. About the only place that doesn't is maybe up in the northeast corner in the state of California.

Q I don't know if you are aware our neighboring state, the state of New Jersey, all but two of the counties in the state of New Jersey are severe nonattainment for ozone. As you had, in fact, this Philadelphia air region includes all the way up to the city of Trenton, New Jersey, which compared to Orange County is less than 60 miles from here, the city of Trenton. Our air region also goes into Cecil County, Maryland, parts of Delaware and surrounding counties in the city of Philadelphia. As you head up further north you get into north Jersey and the New York City region, once again there are areas there with severe nonattainment. The same thing with the state of Connecticut, the same thing with the state of Massachusetts. I think that is probably one of the reasons Congress created by statute the Ozone Transport Commission which was to examine the ozone problem, frankly, over a land mass which is probably less than the size of California, certainly is less north to south in the state of California.

So, one of the problems in evaluating what we do with ozone in Philadelphia is what impact is it going to have on neighboring states which is I feel why Congress created the Ozone Transport Commission.

But I think that raises another question, which is, I don't think anybody who has ever raised the point that somehow the air quality in the state of Pennsylvania is as bad or nearly as bad as that experienced in the state of California. However, the federal statute talks about a mandate for required percentage reductions. I think you made a very good point about a good emissions inventory reduction program. That is something our department has talked about needing to do and is one of the justifications for the interim fee to get our program up and running. Simply, it is not as easy to compare and talk about how bad California air is versus Pennsylvania air in determining whether we should adopt the California CARB or not. I think the reason for that is because once we finish this inventory assessment we will have a much better idea as to where we have to go. And the problem I think is that it is not a straight trade-off. By that I mean we may find that additional control strategies such as Stage 2, the oxygenated fuel you referred to, inspection and maintenance issues we discussed here may permit us to achieve our objectives under the federal statute.

However, I think there is also the possibility that when we are finished all of that, we will still have to attain additional reductions in ozone. And there are only, that I am aware of, only two ways to do that. Either you do that through your mobile sources or your stationary sources.

On the mobile source issue what we have seen I think is that the improvements that have been made to the tail pipe emission side, to the overall quality of air, have been eroded substantially by the number of vehicles miles traveled. And where the California program permits, where it takes into consideration planning on the out years that you mentioned is that even if you assume one would have more vehicle miles traveled, you will still get a net gain in terms of improvements of air quality for VOC and NOX if you implement the California air program.

The problem here in the state of Pennsylvania is such that if we implement whatever controls we actually do and we are not going to achieve the 15 percent reductions in the statute, we may have to look somewhere else. That somewhere else, that somewhere else, as you are aware, is stationary sources. And certainly someone who represents a refinery, you know that in many cases it seems to be an easier thing politically to do just to say, well, let the refineries take care of the additional reductions of VOCs and NOx like the chemical plants, whatever.

So, I think that is the difficulty that some of us are wrestling with here in the legislature as to whether we go with California emission control. What would probably be more helpful than a simple assessment of the relative comparison in air quality would be an evaluation as to what reductions you get for VOCs and NOX in the California program versus the federal standards. Because obviously, the federal statute doesn't permit a third car. And that would be helpful to us to be able to take a look at those kinds of numbers. And then we could weigh that and try to get the cost of achieving those numbers, some of which you have obviously brought to our attention today.

I guess that is more of a speech than a question. If you want to answer, go ahead.

A I guess a comment, there may be some information, I would have to go back and look, in terms of California, the difference between the federal program and the state program. I don't have that at my fingertips, but I can see what I can do to gather that. Your comments are well taken. It is hard to know how many or which strategies you have to adopt until you get your inventory organized. The whole Ozone Transport Commission looks at your ozone transport problem. And I guess that is really the first step. You know, you start with the least costly control strategies and you work your way up the list and you go as far as you

have to go to get what you need. I guess what I am suggesting is you need to have an orderly rational process to do that. Ultimately, that may lead you to some very extreme kind of controls. That may be what you choose to have to do, but you need to make sure you have gone through the process of identifying what are you really getting for what you want to do. That is all I am suggesting.

Q This is one last question, in the out years of the California Low Emission Vehicle Program, how many vehicles in the state of California are proposed to be nongasoline powered?

A That is a darn good question. ARB has had some fairly optimistic forecasts about that and they talked on the order of one to two million vehicles.

Q And how many vehicles are there now?

A 20 some million probably. It is really up to the marketplace to determine that and the real question would be how aggressively would the motor vehicle manufacturers want to promote alternative fuel vehicles and how comfortable would they feel with those versus gasoline based technologies. What they have tried to do is create a system where either type could basically come into the market. Really, they are leaving it up to the market forces to determine what vehicles ultimately will be sold to meet the same standards.

REPRESENTATIVE HAYDEN: Thank you.

CHAIRMAN MCCALL: Any questions?

(No response.)

BY CHAIRMAN MCCALL:

Q Mike, can you speak to the inspection program that they currently have in California?

A Briefly, California has a decentralized inspection program. I don't have any hard numbers on the benefits of that program. I can speak from some personal experience. The cost of an inspection in California runs around $35 on the average based on some of the data that I have seen. I have been a little suspicious because many of the people that run the program say if you don't pass, you don't pay, which may suggest an inherent conflict. I don't know. But nonetheless I think California is in the process of reexamining their whole program right now. They have an advisory commission that is made up of the air pollution control districts in California along with the ARB. I think even EPA participates. They have been examining how the program works, how it may be changed to improve it. And, of course, they are very interested in EPA's guidance because that ultimately will set some performance requirements that they are going to have to be able to deal with.

Q Is it statewide testing?

A I believe by now it is pretty much statewide.

Q What kind of equipment do they use to conduct the tests?

A It is basically a nonloaded mode test. They don't use dynamometers, but they do have some fairly sophisticated electronic equipment. They look at the carbon monoxide and hydrocarbon emissions at idle and believe at 2500 RPMs. And it is all, it has been computerized. All this data is fed into the Bureau of Automobile Repair and tracked. It is tied in with the vehicle registration. So, if you don't pass, you don't get your vehicle registered. I believe it is biannual.

Q Is there an amount of money that one would have to spend? Is it capped to come into compliance?

A The current program has a variable cap depending on the age of the vehicle. The older vehicles, I believe the maximum, I am talking about vehicles like pre-'75, I believe around $50 and that goes up to I believe in the neighborhood of $300 for the later model vehicles. So, it depends on the age of the car.

Q If you fail and you have to go get your car retested is there a charge for that retest?

A I believe there is.

CHAIRMAN MCCALL: Thank you, Mike.

MR. REDEMER: Thank you.

CHAIRMAN MCCALL: We will now have Richard

Gmerek and Elaine Farrell from the Pennsylvania AAA Federation. Would you please identify yourselves?

MS. FARRELL: I am Elaine Farrell, Executive Director of AAA.

MR. GMEREK: Dick Gmerek, I represent the Federation in Harrisburg.

MR. WEBER: I am Jack Weber. I represent AAA Mid-Atlantic here in Philadelphia.

MR. KISSINGER: And I am Garvin Kissinger of AAA Mid-Atlantic.

MR. GMEREK: Good morning. As most of you know, my name is Dick Gmerek from the law firm of Tucker Arensberg in Harrisburg. I am here to testify on behalf of the Pennsylvania AAA Federation. It is a Federation consisting of 29 various AAA clubs across Pennsylvania. I want to thank you for giving us the opportunity to testify. We, on behalf of the Federation, Elaine and I will talk generally about the Clean Air Act and how it affects the AAA clubs across the atate. And Mr. Weber will discuss after us the effect upon the Mid-Atlantic Auto Club and the Keystone Club in the general Philadelphia area.

At the outset we want you to realize we are not experts on the Clean Air Act and how that will be implemented in Pennsylvania. But through our national AAA we do have some information that we think we can pass on to you

to inform, where we can, and to raise questions where we are unsure. Our concern always is in Pennsylvania the cost to and the safety of the motoring public whenever anything is debated by the General Assembly. We would ask that you keep that in mind as we testify.

Regarding the oxygenated gas with a deadline of November 1, 1992, we have been informed that this will apply only to the Philadelphia and Pittsburgh areas; however, we are unsure whether it applies to Pittsburgh or not. Our concern though is that oxygenated gas is only part of the real solution to the problem. Pennsylvania needs to enact an active statewide gas quality inspection program, which other states have, and they utilize the American Society for Testing and Materials. I am told that Pennsylvania is one of six states that does not have such a program. Those states are identified in the testimony as Ohio, New Hampshire, New York, West Virginia and Oregon. It seems to us that if you are going to have oxygenated gas we ought to also, prior to that, have in place some type of gas law inspection program.

With regard to the State Implementation Plan required by Pennsylvania this November, it is our understanding again that an initial plan is due this year, the final plan due to EPA by November 15th of the next year. That leads us to urge caution in developing this year's SIP. More importantly, we think it is important that you carefully

decide the manner in which the finalization of the SIP be done for 1993. While we say this, we agree with Secretary Yerusalim and others who brought up the idea of potential lawsusits and loss of federal highway monies if we don't act within the requirements of EPA. Furthermore, the welfare of our environment requires action. For that reason, we applaud this Committee for the work that it is doing. But we would, again, caution you in particular, and the General Assembly, in general, to truly implement a plan which will work for Pennsylvania and take into consideration the recommendations we will make at the end of this testimony regarding our ideas of how the plans can be finalized for 1993. In the SIP we believe there are several issues which should be addressed.

First of all is the emissions program, the I/M, the Inspection/Maintenance Program. Our most important idea regarding this issue is it should be an effective program that is convenient to the motoring public.

It should be on the same schedule as the vehicle registration and operated in the same manner but be on a biannual basis. We are concerned that if one fails the test, they may not be able to register their car. And different to the situation we heard about in California, if you fail the safety inspection, you can still register your car. You just can't drive it. So, we believe it should be the same way with the emissions program for ease of understanding.

The distance a motorist has to drive is important in consideration of inspection.

The test should be able to be completed in a short amount of time. We have said ten or so minutes but we say short amount of time to not unduly burden the motorist.

There should be enough lanes so that the lines will be short.

There should be certification of those who have to do the repairs, if needed, when one fails. There needs to be adequately trained mechanics.

There needs to be guidance given to the person who will be doing the repairs. It is our understanding that the EPA's guidelines and regulations still have yet to be issued and mandated that the testing center cannot do the repairs. If that is the case, how will the repair station know what repairs to do. Will there be some type of printouts given? Will there be an indefinite process where you have inspection, repairs, inspection, repairs? And as you, Representative McCall, asked, will there be a fee every time they have to go back and forth in this process.

With regard to the debate about centralized and decentralized inspections, we reserve our comments at this time regarding our position, but we do have many suggestions and questions.

Is there a need for all 11 counties to

establish one program? Can the Pittsburgh area or other areas that are going to be required to do the program have a lesser inspection?

If in fact the testing centers cannot also do the repairs, will the repair garages have to purchase expensive dynamometer machines, since one cannot repair what one cannot see?

We are concerned also about the cost of the dynamometers, as opposed to other existing machinery which could be used. Whether a centralized or decentralized system is approved, if all repair shops are required to have dynamometers, it obviously would be very costly.

For your information, and perhaps you know this, Ohio, Kentucky and New York are leaning toward a split state status, which consists of part centralized and part decentralized. It is our understanding and belief that perhaps these states are doing so so they can collect enough data to compare the pass/fail rate and the cost of repair differential between the centralized and decentralized areas of the state. We raise this consideration for this Committee.

We also want to advise the Committee that the failure rates are set in advance by the EPA. For example, the EPA proposes that 35 percent of all pre-1981 automobiles must fail on inspection, which is up from the previous failure rate required by the EPA of ten percent.

With regard to the California LEV standards, we agree with a recent article in the Philadelphia Inquirer stating that half of the emissions problem from automobiles is with ten percent of the vehicles -- those which are older do not have up-to-date emissions systems. Since California standards would apply to all vehicles sold after 1996, this would have no effect on these older vehicles which continue to provide half of the problem. Further, the automakers claim that these standards could raise the price of a new car by as much as $1000. With the newly recently announced presidential Cash-for-Clunker Program, whereby up to $1000 would be offered to the older vehicle owners to get them off the road, it doesn't seem a great incentive to entice people to purchase a new car when you tell them that you'll give them a thousand dollars or less for their old car.

We are not here to oppose the standards, the California standards. But we are here to question, as we stated earlier, and where appropriate, to inform. So, for that purpose we want to advise this Committee that Virginia recently rejected the California standards and that Massachusetts has requested a commission to investigate a statewide plan for cost-effective, improved regional air quality targets at the actual sources of pollution. Additionally, New York's plan, which did adopt the California standards, is currently under challenge in court by the auto

manufacturers.

One concept we find interesting is the fee-bate program whereby if you bought a "clean" vehicle, you would get a rebate and if you bought an older, "dirty" vehicle, you would have to pay a surcharge. This has not been backed by the AAA members. We just raise it for your consideration.

Reformulated gas, it is our understanding that these provisions would apply only to Philadelphia, but it could be applied to the entire state. If it applies just to Philadelphia, then we have a concern that if you had a border whereby reformulated gas were sold to the Philadelphia general area, that one could merely cross that border and take other type of gasoline and come back into the city, it would really have no effect on the problem. However, if it is to be applied on a statewide basis, then we are concerned about the following problems:

(1) It could lead initially to a higher price of gasoline.

(2) There would obviously be enforcement problems, plus likely to see a problem with gas pump stickers indicating octane levels.

And (3), that it could provide a problem to Pennsylvania because of our cold weather. There might be driveability problems if reformulated gas were used in this state.

With regard to the next issue of alternate fuels, our primary concern is that whatever taxes apply to gasoline should apply to alternate fuels. As you know, the gasoline tax money goes directly into the Motor License Fund. Our constitution mandates that that is for roadway and bridge repairs and we urge the same provision apply to the alternate fuels.

Everything we have discussed, the higher price of gasoline, the potentially higher cost for vehicle emissions and the issues we have raised. We support the concept of the motorists' responsibility to assist Pennsylvania, not only in its SIP, but generally in just cleaning up the environment. To that extent, we publicly offer today to provide any assistance we can to help educate the motorists of Pennsylvania and help ease any confusion that may be caused by the implementation of our SIP. However, the Federation cannot and will not support any increase in other fees to the motorists, including vehicle registration fees, in an effort to help pay for pollutants provided by stationary sources. We believe we are advocating a responsible position regarding the motorists and trust that the stationary source polluters will do likewise. We hope this Committee and the Commonwealth will respect our position on this matter. It would not be fair to the motorists and it would be violative of the Pennsylvania constitution to

utilize the vehicle registration fees for anything other than the Motor License Fund.

There has been so much information and misinformation regarding the Clean Air Act and its implementation in Pennsylvania. We read it in the papers every day. Whether it is administration sources, legislative sources, newspapers, whatever, it is what is required? We have noted that the initial plan is due this year and the final plan is due next year. It raises some interesting questions.

Will EPA plan to extend those deadlines as they have in the past in terms of their requirements about their own regulations? We have no guidelines that were required for November of '91 by EPA regulations. They have already put that day off. They have shown a propensity to do that.

Even if these deadlines are extended when does the plan actually have to be implemented? When does something have to be done?

Does the plan have to be implemented immediately or are there different types that will be implemented for attainment and nonattainment areas?

Is there a requirement that every part of the plan be implemented and all at the same time?

We believe that since the Commonwealth has until November of next year to establish a final State

Implementation Plan, it is essential for the citizens of Pennsylvania to become educated on these matters. Therefore, the Pennsylvania AAA Federation respectfully and earnestly requests that a study commission be developed to determine the best manner in which our SIP can be finalized by November 1993. And I believe you heard testimony that in California they have at least one or maybe two or three commissions I guess to operate separate from the General Assembly. This does not detract from the fine work this Committee is doing. Rather in our minds it should work in concert with the initial plan that you are working so earnestly to develop right now. Recently, a study commission in New Jersey issued its report. It is a worthwhile document, which we have and I can share with the Committee today. Not only is it thorough, but it is representative of ideas merged from all groups and all positions -- environmental groups, oil companies, AAA clubs, legislators, consumer activists, administration officials, et cetera. We can share additional information regarding this commission with you if desired.

Obviously, in no way are we suggesting this commission to delay. We are well aware that when one suggests a study commission that it meets with high eyebrows and sighs of "Oh, not that again". Nor are we suggesting to put the issue on the back burner. Rather, we suggest this so that it can work in tandem with the efforts being put forth by you and

by the General Assembly. The information and misinformation mandates that issues involving the Clean Air Act, as it relates to Pennsylvania, be studied very carefully -- much the way this Committee has operated. But only through a concerted effort involving all parties who are affected in "one room" can there be a rational solution reached. And we raise this as we have with you, Representative McCall, in the past where we are on the side of the motorists' responsibility and in another arena there is discussion of motor vehicle registration fees being utilized to pay for another problem and we are having trouble connecting it and resolving the problem in one arena and we've got to run to another arena and explain that again.

We need to develop a plan that not only meets the required deadlines of EPA but also provides what we sincerely want, all of us, good quality air and a safe environment for those who will come after we are gone. We also suggest that the study commission be deeply rooted in political logic, which I have not made a part of our testimony, but will explain. I might add that this is my position and mine alone. It appears to me that you have until next November to do something to finalize the plan. We all know that there are 30 new members of the legislature. As I look at it, we probably have ten or 20 more, which obviously, we all hope that doesn't happen. We could have a

20 percent change in the General Assembly. Obviously, you always run the risk every election year that leadership will change in one or both houses.

With that it would seem to us if your group, your Committee, would develop an initial plan that a study commission could be started immediately requiring that they put their report out by the end of the year. That the initial plan you all develop could then be used as part of their investigation, because anything they do in the initial plan could be changed next year in the final plan with the new makeup of the legislature, perhaps new leadership in one or both of the chambers, and hopefully not for some, hopefully it is not for others, you run the risk of starting this process all over again next year most likely in February or March which doesn't give a whole lot of time to finalize the initial plan.

So, it seems to us while you are doing the initial plan, this study commission could be reviewing the same issues, then look at your initial plan and make recommendations whether any of those initial plans ought to be changed. Then you would have to document by February or March next year which to look at to compare their initial plan and their recommendations.

Thank you for the opportunity to present this testimony. As we stated at the outset, we are not experts on

the Clean Air Act but we hope that we have provided some information to you and raised some questions and points which you will consider in developing the State Implementation Plan.

Thank you.

CHAIRMAN MCCALL: Do you want to go right into your testimony?

MR. WEBER: That is fine with me.

CHAIRMAN MCCALL: Do you want to identify yourself for the record?

MR. WEBER: Thank you, Mr. Chairman and members of the Subcommittee. I am Jack Weber. I am the Senior Vice President for AAA Mid-Atlantic known to Philadelphians as Keystone Automobile Club. We are the regional AAA affiliate with approximately one-half million members in the five county Delaware Valley region.

AAA Mid-Atlantic is very supportive of efforts to improve air quality. We are aware that the 1990 Clean Air Act requires certain changes in the air quality controls which will impact Pennsylvania and specifically the southeastern region. However, as has been pointed out by prior testifiers, to date, EPA has not issued final regulations implementing the Clean Air Act. We believe that it would be premature to proceed with final planning until the EPA regulations are published.

In the interim we strongly recommend that a

Blue Ribbon Commission be appointed to study the issues related to the implementation of the Clean Air Act in the Commonwealth of Pennsylvania. I also strongly urge you to include AAA Mid-Atlantic as a member of the Commission and I urge you for this reason.

AAA Mid-Atlantic established an automotive diagnostic facility in 1980 in Broomall, Pennsylvania which has tested approximately 80,000 in-use motor vehicles since its opening. Part of the testing conducted is quite similar to what we believe is the "high tech" emissions test that is proposed by the EPA. We believe that we can add enormously to the considerations of the Commission because of our real world experiences.

One issue that needs to be addressed by the Commission is the question of centralized versus decentralized inspections. In making the determination, it is incumbent upon us to be sure that the inspection is accomplished with as little inconvenience to the motorist as possible. This would include having the inspection and repair, if needed, done at the same time and place, similar to our current safety inspection and emission inspection program. The key to the success of the program in place today is proper training, certification and active monitoring.

We do believe that any enhanced I/M program that would be forthcoming for Pennsylvania prior to the

publication of federal regulations by the EPA would be premature. However, there are things that can be done in the interim. For example, the use of reformulated fuels will reduce volatile organic compounds and toxic pollutants. Another significant action that Pennsylvania should take is to implement a gasoline inspection program to guarantee the quality of gasoline is in compliance with the standards of ASTM (American Society for Testing and Materials.) Presently Pennsylvania is one of the six states,as was previously pointed out, lacking a gasoline quality inspection program. The motorist should be assured that the gasoline he buys complies with the American Society for Testing and Materials Standard, which is the refinery standard.

We would also recommend that the House and Senate act on Senate Bill 1470 which would provide grants for retrofitting certain vehicles for alternative fuels. The alternative fuels provided for in this bill would result in lower emissions of oxides of nitrogen, reduce volatile organic compounds, reduce carbon monoxide and particulates. The fuels would include compressed natural gas, liquefied natural gas, liquid propane gas, alcohols and electricity. We believe if such legislation is enacted fleet operators would have an incentive to retrofit for alternative fuels. We, at AAA Mid-Atlantic at the moment are committed to such a program and are in the process of retrofitting, at our

expense, our fleet of road patrol emergency service vehicles to compressed natural gas (CNG). We believe this single step taken by companies will go a long way to help improve the air quality in the five county region.

Another strategy that can be taken to improve air quality is traffic signal coordination. Studies have shown that this single action will improve air quality. The rationale is very simple. A moving vehicle is more efficient than a stop-and-go vehicle. With the amount of commuter traffic into the Philadelphia area, traffic signal coordination is essential.

Along those lines, we would like to take this opportunity to compliment PennDOT for their perseverance in completing the Blue Route. The Blue Route will, in our opinion, continue to assist in improving air quality in Philadelphia by traffic bypassing the downtown Philadelphia area that is connecting from the Turnpike to I-95 and points south. Also, we are aware of the fact that PennDOT has included in its future plans the modernization of I-95 in the Philadelphia area. The modernization would reduce congestion and bring I-95 into the category of a high tech highway.

We would also urge the Delaware Port Authority to proceed as quickly as possible in the implementation of one-way toll collecting on the Port Authority bridges. One-way toll collecting will significantly improve the

movement of traffic and reduce tail pipe emissions caused by a stop-and-go vehicle.

In our invitation to testify before this Committee, one of the issues we were requested to comment on was the proposal of a one dollar surcharge on motor vehicles to fund DER programs to implement the Clean Air Act. AAA Mid-Atlantic opposes such a move. I would like to emphasize, we are not in opposition to improving the air quality. As a matter of fact we support all efforts to improve the air quality; however, the actions we have commented on will, in themselves, add additional costs to the motorists (i.e., the enhanced I/M inspection program, also reformulated fuels will increase costs by five to ten cents per gallon). It is our opinion that if there are stationary sources that are polluting the air and they must be controlled, then the cost should be borne by the industry generating the pollutant. We believe the motorist is paying his fair share to contribute to clean air.

Thank you for the opportunity to provide these comments. I will be happy to answer any questions the Committee may have.

CHAIRMAN MCCALL: Any questions?

(No response.)

CHAIRMAN MCCALL: I guess maybe just a comment on my part is that most of the questions and concerns

you raised reflect the same questions and concerns that we have on this Committee. I think the most frustrating thing we have been confronted with is the lack of EPA action on the issue of regulations to give us some guidance and some guidelines. We can look at the legislation passed by the Congress in the Clean Air Act in 1990, but until EPA gives us some direction, we have a lot of the same questions that you have asked and we will certainly keep those in mind as we formulate and put together our legislative package. Thank you for your testimony.

We will now have Morton Getman, Executive Director, Society of Automotive Vehicle Emissions Reduction, Inc.

MR. GETMAN: Chairman McCall, Committee members and staff, on behalf of SAVER and its members, we wish to thank you for your invitation to participate in this hearing and for the courtesies extended us in earlier meetings. I am accompanied by Jeffery Derks, who is employed as our Director of Emissions Analyzer Programs for the Allen Group, which is one of our member companies and is here specifically to assist in any technical issues that may arise. Your interest in the future of the Pennsylvania auto emissions inspection program, under the Clean Air Act Amendments is of great interest to us, of course to Pennsylvania motorists and to businesses and workers that rely on auto emissions inspection and repairs

associated with it.

As you may know, SAVER is the trade association of the decentralized I/M manufacturers and supplier support companies. It was organized in early 1991 to face the challenge of the EPA favoring centralized I/M which would seriously and negatively impact SAVER's members.

In a recent communication to Chairman McCall, on behalf of SAVER, I complimented your Committee for its quickly zeroing in on the urgent question of how to best achieve sufficient EPA credits, through your I/M program approach. I emphasized the deep bias which EPA has against decentralized I/M both in regard to its insistence on IM 240 (transient loaded mode test) and in the disproportionate credits it provides to centralized I/M, over decentralized -- as reflected in its draft guidance and in EPA's unending drumbeat around the United States, as it tries to influence -- and indeed -- terrorize state program managers.

You are faced with the unenviable task of being told, unofficially, that the deadlines in the CAAA, beginning with November 1992 for your mobile sources SIP, are inexorable, unchangeable and enforceable. EPA tells you, however privately, that they will impose sanctions and that, in addition, citizen suits will lead to the same result.

Therefore, they argue, you must adopt a centralized, IM 240 system in order to comply with the

statutory requirements.

EPA appears to conveniently forget that it has failed to meet the November 1991 deadline guidance. That, despite the fact that they conceded in April 1991 that guidance was inappropriate and that a rulemaking would be necessary. In some circles, we are now told that EPA will rely on the convoluted reasoning that they can seek to impose statutory deadlines -- including sanctions -- because the statute simply speaks to "guidance" -- and we suppose that their sub rosa pressure around the United States may be claimed as the equivalent of "guidance".

Nevertheless, the statutory deadlines are real, EPA might indeed attempt to enforce them and citizen suits for enforcement of the timetables in the statute are a distinct possibility. Sixty day notices of suit against EPA -- for failure to meet statutory deadlines -- abound throughout the United States. One or more parties are almost certain to bring suit and it has a sobering effect upon SAVER members as well it does upon your deliberative body.

Having placed that issue of statutory deadlines before you, I want to assure you that I will have some comments which I believe go to the heart of that issue. Firse, however, let me take you to the substantive issues in this case.

Inherent in the entire EPA modeling, testing, guidance and proposed rulemaking exercise are the EPA claims

that IM 240 has unique test capabilities and that centralized testing is inherently more accurate and honest than decentralized. They stress, in particular, what they claim to be an inherent conflict between test and repair and they insist upon the separation of the two.

First, IM 240. EPA has had reason to believe that the purge function could be tested in a far less costly and simple way than by transient loaded mode, a la IM 240. So-called steady state loaded mode testing is the answer. Steady state also involves a dynamometer but a steady state loaded mode test translates into perhaps $15,000 dynamometer cost rather than $150,000 IM 240 equipment cost. Also, as you know, centralized test facilities don't exist in Pennsylvania and would have to be built so that each IM 240 lane might cost $300,000.

Under the CAAA, EPA knew that it was compelled to apply flexibility and lowest cost approaches -- with least inconvenience to motorists, in order to achieve their statutory clean air objectives. Therefore, if they had any less costly alternatives that were either obvious or reasonably possible, instead of IM 240, they were obliged to test them.

They knew all about steady state loaded mode because a very fine lab in California, Sierra Research, had run December 1988 steady state loaded mode tests that had

exposed their apparent capability of handling the purge function and other functions that were claimed to be unique for IM 240 -- all at relatively low cost. Rather than test steady state loaded mode, using the Sierra model, EPA ignored it -- despite its wide publication and their clear knowledge of it -- apparently making "engineering judgments" that it simply wouldn't work.

SAVER's self-interest and our secure belief that steady state loaded mode testing could save freedom of choice for states, as between centralized and decentralized I/M -- and save SAVER's businesses -- retained Radian Corporation -- an outstanding consulting firm and lab in Austin, Texas. Radian's most important work under that retainer, thus far, was a report dated December 31, 1991 which we have shared with your office. We can send additional copies to whomever you designate. That report models the Sierra steady state loaded mode tests and concludes that they are very nearly as good as anything claimed by EPA for IM 240. EPA, in oral responses only -- during a meeting at the Houston-Galveston Area Council on January 27 -- broadly attacked the conclusions of the Radian report. They have never published that attack.

Nevertheless, we have enclosed for you a February 27, 1992 paper by Radian Corporation, refuting the positions taken by EPA in that Texas meeting in January.

Much more to the point, in recent correspondence with Texas' United States Senator Gramm, EPA admitted that they agreed with the Radian report -- but that they were awaiting testing of steady state loaded mode -- and had received no data in regard to such testing.

While SAVER has excoriated EPA's purposeful avoidance of modeling and testing steady state loaded mode -- an absolute statutory requirement as they seek equally effective decentralized alternatives to centralized I/M -- we also recognize that we were being put "up against the wall" by EPA. In that connection, we were fortunate to develop a relationship with ARCO, Atlantic. That company has about 130 very specialized I/M stations in California that are called SMOGPRO shops. They are deeply invested in decentralized I/M and are a top-notch company which has the resource, expertise and economic incentive to test steady state loaded mode.

In that connection, your packet includes a March 11, 1992 letter from ARCO Products Company to me, outlining the testing which is now underway at Southwest Labs in San Antonio, Texas using California codes. As recently as yesterday I talked with ARCO officials and learned that the testing is half complete and should be entirely completed by Tuesday of next week. We anticipate that a first analysis of the test data will be ready before April 10 and a final report will be on file before May 10. Essentially, the outline

schedule in the enclosure we have given you today remains totally on target.

I would also call your attention to the enclosed March 6, 1992 letter from the Chief Executive Officer of the California Air Resources Board, addressed to me, in which he applauds the "--better understanding of our mutual areas of interest" and outlines his intention to "--explore alternatives to the EPA proposed I/M program." California plans to compare IM 240 to steady state loaded mode options -- and will be doing that in its large and unique in-use vehicle study over the next year. They are deeply skeptical of EPA's romance with IM 240.

The Canadian government also has engaged in very recent steady state loaded mode testing -- which we are evaluating -- and we will share those results with you as soon as we know of them.

The Canadian government openly sent us all their data.

The second issue of great importance, regarding EPA's inherent bias against decentralized I/M arises because they simply have never liked decentralized I/M, have found it to be a complicated matter and have never effectively imposed standards on any state involved in decentralized I/M. We would argue, based on hard experience, that Pennsylvania's decentralized I/M program -- which has

faults -- would have been all the better if EPA had zeroed in on those faults and had mandated specific, directed improvements. In the absence of those improvements, EPA should first have threatened sanctions and/or the lifting of the state SIP -- or otherwise made it clear just what they expected of decentralized I/M and how to bring it about.

Instead, in their draft guidance and elsewhere, they have modeled BAR80 and BAR84 decentralized I/M programs, charged them with inefficiency, inaccuracy, poor tampering inspections -- matching them up against their mythical IM 240 which is not in commercial operation anywhere.

A decentralized, enhanced BAR90 I/M program which is properly enforced and administered can be fully as effective as a theoretical, excellent centralized I/M program. The cost to the state of Pennsylvania, per car, would be somewhat higher for administration and enforcement, than centralized -- but the difference should only be marginal -- perhaps $2 or $3 per test.

That is more than offset by protecting motorists from being ping-ponged back and forth, massive inconvenience and associated costs -- and the economic consequences of killing off thousands of jobs and hundreds or more businesses, which now benefit from and in the future could benefit from effective, enhanced decentralized I/M.

We met with EPA at its mobile sources lab in

Ann Arbor, Michigan in the summer of 1991 and presented an outline of an enhanced, decentralized I/M program. They rejected it as bare bones and we came back in October with a complete program -- replete with every required detail. EPA has forcefully refused to test that program. In fact, in a January 21, 1992 meeting we had with that same office, they mocked us -- asking "what would you have had us do? Set up a decentralized test program in Rhode Island?" Clearly, they were obliged to do something of that nature and should have taken the lead more than a year ago. Here again, EPA has purposely created an inaccurate model and has insisted on providing disproportionate credit for centralized I/M and speaking for SAVER we will not let it stand.

You should also know that EPA's Policy Office commissioned a report by independent economists, initially completed in November 1991 and then hidden by EPA because the results were so startling, we believe, indicating massive economic damage to the decentralized I/M industry in the event centralized was imposed. Instead, in February 1992, they issued a revised report -- and even that Milquetoast document suggested as much as a $300 million loss in jobs and business in the event centralized I/M was mandated. They then cut that in half, postulating that there would be $150 million more repairs with IM 240. If steady state loaded mode is the equivalent of IM 240, obviously repairs would be the same with

either approach.

There has been an almost complete failure on the part of the federal government, almost amounting to a cover-up by EPA, in evaluating the massive inconvenience cost of tens of millions of motorists nationwide if they are compelled to have their I/M inspection at a very limited number of widespread centralized facilities instead of the thousands of decentralized repair shops that would otherwise be available. While Radian's December 31, 1991 report makes a very conservative estimate of the inconvenience cost to motorists -- we have heard serious criticisms of those estimates, because they appear not to go nearly far enough. Time does not permit me to go into the hard copy of slides which are in your packet attached to the ARCO materials. They relate to a presentation made on February 26, 1992 at a panel discussion of I/M, sponsored by Resources for the Future. These materials reflect on inconvenience cost and lament the failure of government to quantify those very large costs that will be foisted upon millions of motorists.

It is our understanding that Resources for the Future is only weeks away from its final report, which may further illuminate that subject. SAVER will also press forward with additional information on the subject on its own.

Even the Resources for the Future work, thus far, in suggesting that there may be ways for centralized I/M

to become somewhat less inconvenient, points to the need -- then -- for far more centralized facilities.

It is altogether unlikely that you in Pennsylvania, or other states, if compelled to mandate centralized I/M will be able to develop adequate centralized facilities. Land use questions, the economics of intense throughout that centralized contractors require and related issues make those two considerations -- motorist convenience and centralized contractor profit -- diametrically opposed.

Also, on the issue of EPA strongly suggesting that test and repair must be separated -- that will not hold up with modern, BAR90 decentralized I/M. The limited number of shops that either cannot do sufficient volume to justify equipment cost, may not have the skill level or desire to get into a more complex program, will not want to engage in the inspector and mechanic training that will be necessary -- and the even smaller number that simply are not honest -- in Pennsylvania and elsewhere those will fall away. Large numbers of service stations, garages and auto dealers will participate honestly in a decentralized I/M program. It is profitable, they need to do it from a competitive point of view to stay up with other stations and the net result will be cleaner cars, cleaner air and convenience for the public.

As a practical matter, in decentralized I/M, most motorists will make an appointment and leave the car for

its test, any repairs that might be necessary and other work that may be done routinely by the garage or service station (i.e., brake jobs, tune-ups, oil changes) whatever.

The converse, centralized, involves lamentable ping-ponging, enormous wait times, wasted fuel and a general disregard for the public. That also will necessarily lead to evasion on the part of many who simply will not want to submit to the program.

We could hardly suggest that you now develop a decentralized I/M program in the absence of EPA guidance or rulemaking. You are doing the responsible thing, however, in gathering information and trying to determine how to proceed at the appropriate time.

I want to briefly return to the original issue I raised -- that of EPA pressing Pennsylvania and other states to adopt centralized IM 240 programs now under the threat of statutory deadlines and sanctions.

I can assure you that we have been studying this subject in concert with qualified litigation counsel for months now. While no one can assure you that you will not face litigation and no one can flatly tell you the outcome of any such litigation -- some things are fairly clear.

For example, if anyone seeks after a 60 day notice to compel EPA to meet deadlines there is the potential for other parties to intervene in those proceedings. If that

intervention is successful the court then would, in the normal course of events, be negotiating timetables with all the parties. That would necessarily include the Commonwealth of Pennsylvania -- which could make a persuasive case that it could not responsibly adopt an IM 240, centralized program without the necessary guidance or rulemaking. The differences in approach are polar opposites (i.e., decentralized, steady state loaded mode, BAR90, decentralized as against IM 240 centralized) and the public policy implications absolutely immense.

Clearly, SAVER and its member companies are deeply invested in this whole issue and should not be expected to readily stand aside, should there be litigation.

In that connection, I recall an EPA technical person from Ann Arbor who has had the lead from the Mobile Sources Office (Gene Tierney) speaking at a September 1991 meeting of program managers in the Northeastern United States (NESCAUM). It was in Danbury, Connecticut and one of the managers asked him, in the relative privacy of that meeting, I guess there were 50 of us, whether EPA would seek to impose sanctions on statutory deadlines, even if it could not have its rulemaking done by the November 15, 1991 deadline for final guidance.

Tierney found that question almost laughable and answered (this is not a direct quote, but close enough)

that it would be absurd to expect that EPA would even try to do such a thing, much less expect to succeed. For a change, EPA was right on the mark in that comment.

In closing, we wish to thank the Committee for its indulgence and its wide latitude and to pledge SAVER's continued support for your efforts to gather facts and make solid judgments at the appropriate time regarding the future of your I/M program. We would urge that you consider a widespread geographical program, once you settle on an approach, as it ought to help you with cars that are outside the impacted areas but regularly travel within it and may obtain you further EPA credits.

If I can take another one minute before I close, we listened to the testimony of all the prior witnesses today and we found that extremely interesting. We thought that each had things to offer that were very important. But in particular, California has a structure with an I/M Review Committee. We are working very closely with them. We testified in California and I go out there every couple months. The I/M Review Committee is a legislative creature. The legislature in government created the I/M Review Committee. They are now looking at possible amendments to the law which was created and has a set of deadlines and has to make a number of reports. And their apparent current target would seem to be early 1993 for

action. So, they are studying, they are working, they are constantly asking us for information and others who have various points of view and it is a very, very intensive undertaking.

Also, the fee per car that the state gets in California, the state gets, for every inspection is very high. It is seven dollars. And if you do as they do in California, eight or nine million cars every year, because there is about 18 million cars under the program now that have undergone inspection, they are taking in a lot of money. EPA would have to believe that the seven dollars per car goes for the I/M program. That is not true. We will give you as soon as we have it, a complete breakdown of what that money is used for. California has many, many enforcement programs in the Department of Consumer Affairs. When you hear BAR, BAR90, BAR84, BAR80, those are the Bureau of Automotive Repair which is the California BAR. No other state in the United States will certify a program before the BAR certifies a program. That is why we and you in Pennsylvania, all of the country, you have BAR this and that as your programs. Although each state has certain software and other changes and modifications to suit itself. But there is a great deal going on in California at this time.

I should also tell you that a number of the SAVER companies are deeply involved in the Commonwealth of

Pennsylvania. Scott Specialty Gas has its world headquaters in Pennsylvania. Their automotive, one of their major manufacturers does its manufacturing in Bangor, Pennsylvania. Of course, sales forces are not necessarily in your state. So, we have a relationship to Pennsylvania as we do many other states. We are here to help. We have a deep self-interest. Mr. Derks and I will be pleased to answer your questions.

CHAIRMAN MCCALL: Questions? Paul.

BY MR. PARSELLS:

Q ARCO's SMOGPRO shops, do they do repairs as well?

A Yes. They are very unusual shops. They do only I/M inspection and only I/M repairs.

Q Do they have any cost data on what the average cost to the consumer is for those repairs?

A I do not have those figures. They have them and I will get them for you. The discussion by the Texaco witness earlier about the average cost of an inspection, uniquely I think in California, there might be one other state but I am not sure, they have a marketing system, in other words, the state doesn't set the inspection cost. So, initially on the BAR90 the inspection on average was very high. Now we believe we are hearing averages of about $25 currently. This is also if you fail you don't pay. It is an interesting concept and you see those signs posted outside some shops.

What they mean generally is you don't pay until you pass. If you fail you don't get charged a double fee. It just means that you can come back and you can get retested free of charge. You pay only be once for inspection. And that is something those shops have decided on. That is not California law but that could be mandated in a centralized or decentralized program. It is a BAR90 program. New York has BAR90, California, several other places. Again, the Texaco witness touched a little and I don't want to go too far afield on the fact that the BAR90 program is a highly computerized program. That information is downloaded by the state and that is not like the current Pennsylvania program or many others which are rather rudimentary by comparison. So that you really don't have the same thing.

The final point is that if EPA, in measuring centralized versus decentralized says, correctly by the way, that a tampering inspection, meaning a visual inspection under the hood is open to abuse, and it is. You can not automate a visual inspection. So that when you open the hood and look under the hood to see whether the components are there and whether they are connected and under the car, an inspector can cheat and very well might. They have found very serious problems in California with tampering inspection. ARCO agrees with that. California agrees with that. SAVER agrees with that. EPA agrees with that.

So, what EPA says in modern programs, which will have what they call a transient loaded mode, what we said will be steady state loaded mode at one-tenth of the cost, your machinery will tell you. If the components aren't there or aren't working, you will know and that is correct. And so, when EPA says in its draft model, we won't give any state credit for the visual or tampering inspection because it is open to abuse. Because the new automated tests we foresee you won't need it. We believe that.

Then when they say that decentralized is very poor and centralized is very good, and you will get much more credit for centralized, they use the bad experience with visual inspections in California and they say that stuff is dreadful. Even on the BAR90 there is a 30 percent error rate. I am shocked it isn't a 75 percent error rate. That is not going to work. So, EPA can't have it both ways. They can't say, well, we won't give you credit for visual inspection, but when we model decentralized, we will penalize you because visual inspection doesn't work very well. It is absurd.

And then they don't really compare the same thing in centralized programs because they don't do the same visual inspection. Again, I'm sorry I gave you a long-winded answer, sort of a speech. My apologies.

MR. PARSELLS: Thank you.

CHAIRMAN MCCALL: Bob.

BY MR. HOLLIS:

Q If I hear you correctly, you mentioned that the state receives seven or eight dollars, California, and then the service station or whoever operates gets on top of that. What are these fees that the state charges? What are they used for? Do you have any idea? Do they go into the highway fund or --

A No, it is not a highway fund. EPA says they use it for the I/M program. So, what they are saying is, listen Pennsylvania and listen everyone else, if you do centralize, it is easy for the state because a centralized contractor will do everything.

Well, first I learned a long time ago there is no free lunch. Unless you want to be a total captive of the centralized contractor, they will not do everything and what they do they must be paid for. So, what we are saying is we are not going to hide the fact that the decentralized will cost more somehow. What we would say, if you were to adopt decentralized, figure out what you need per vehicle in Pennsylvania for the entire state operation. Let's make believe that that is three or four dollars, every single vehicle, every single test because there is a lot of work involved. It is not cheap, it is not easy and it is not free. Included in the fee that the motorist pays so that the state gets that chunk of money out of the fee wouldn't be seven

dollars, but it wouldn't be 50 cents either. If you looked at what your state spends now, I am sure you have that information or you can, it is not a great deal. It is not sufficient. And so, something more is needed to support a decentralized program. Our argument is that unless you do that, because you can't take it out of the General Fund, I don't think you've got huge surpluses, you've got to find it someplace. And if you say, no, we don't want to impose that three or four dollar fee, we would rather go to a centralized program, I would say you might have a very bad choice in doing that but at least it is your choice. At least EPA should leave that choice to you and we will come to debate that.

But we think we'll prove to you, but we are not sure, that decentralized will be your option. We want the opportunity and we think you should have an opportunity to make a judgment between quality effective programs and concepts about studies that were raised by the AAA folks. Those are being developed and debated all over the country; Virginia, Massachusetts and other states, Ohio. Many states are moving in that direction and I think you are going to see legislation in New York state in that direction as well. I don't know what its fate might be. But the fact is while you deliberate, you possibly may want to have a multifaceted study group bring you information.

BY CHAIRMAN MCCALL:

Q Do you manufacture any of this equipment?

A Yes. The heart of SAVER is the manufacturers.

Q Are you a manufacturer or are you involved in a steady state loaded system?

A No, there are dynamometer manufacturers.

MR. DERKS: We as a company market our product.

MR. GETMAN: Both answers are consistent, that is, as part of a product that Allen and others market, a dynamometer would be included. There are manufacturers of dynamometers that are involved in those products.

BY CHAIRMAN MCCALL (To Mr. Getman):

Q So, the steady state loaded system, does that technology exist right now?

A Oh, yes, oh, yes.

Q It does exist?

A Yes. There are states now that use dynamometers but they don't use them in a fashion which we are describing.

Q What is the difference?

MR. GETMAN: Why don't you answer?

MR. DERKS: Basically it is the steady state test that we are advocating and use a basic steady state dynamometer which is a fairly inexpensive dynamometer and it uses fine line type analyzing equipment. Those products are

currently being sold and marketed in the Florida program. In Florida it is a requirement anybody who does the decentralized reinspection or the decentralized state inspection have a dynamometer requiring the analyzer. That equipment is identical to what we use in steady state. It is the exact equipment that is being used. So, all of that equipment is readily available right now.

BY CHAIRMAN MCCALL: (To Mr. Derks)

Q And there is a dynamometer involved with this?

A Yes.

Q What is the difference? Why such a big difference in cost?

MR. GETMAN: The reason I am taking the microphone back is because I, as a nontechnical guy, have had to live with this for months and come to understand it before I could come and talk to people like you about it. I am a lawyer. I am a nonengineer. He scares me because he knows so much that I am afraid he is going to put it on a plane where I won't understand it and you get less exposure to it so you might not understand it.

So, correct me when I'm wrong which will probably be very soon. Transient dynamometer, IM 240, supposedly mirrors the entire driving cycle. It follows, it follows a whole variety of different speeds that the car might be in and in fact EPA says you ought to be able to get through

this dynamometer. It takes a sample of gas. Literally, physically takes a sample of exhaust gas in a bay area that comes through during the test and 240 means it is supposed to take 240 seconds, but we are finding that the tests are taking about 20 minutes. But leave that aside. That is for another day.

BY CHAIRMAN MCCALL (To Mr. Getman):

Q Where did the basis of that information come?

A Hammond, Indiana, there is a test site that EPA uses in a centralized program in which they have one lane set up with this IM 240 and for a year or maybe more they have been running cars through. And they had terrible trouble getting them through even though they have people who are expert at it and in over a year need a lot of technical help. If you tried to convert that into low paid centralized floats, I don't know how you are going to work it.

Let's stay with transient loaded motors. They then take a portion of the gases and actually analyze them on a computer system. It is very complex. And supposedly they get a very accurate measure of what that car did through the whole drive cycle.

Now, steady state loaded mode is not quite the same thing. The dynamometer is much simpler. The dynamometer can be computer instructed so that depending upon whether you drive a Ford Taurus or a Cadillac Eldorado or a Chevy Lumina

or some other car, each of which needs different instructions perhaps to the dynamometer, it will also mirror driving speed but it will not mirror all the different speeds. It will mirror less.

But our experience is that that is more than sufficient to virtually get you the same results that you are getting in the IM 240. The IM 240 is EPA's super toy (a) because they probably want it and (b) because it absolutely kills decentralize. Nobody can afford it.

An interesting side measure also is that the IM, the steady state load BAR90 does not actually bag the gases. That is very complex and very costly, very tricky. What it does is use an infrared system to read what comes out, and that is being married up in Southwest Labs and what is done at Sierra, and you will get a very comparable result. The only problem is that it won't cost ten times as much. The only problem is it will be done centralized and decentralized. The only problem is it is highly automatic and much easier to do. In other words, it is much better in our view and in the view of independent scientists and testers.

So, they are different. But you really need a dynamometer. EPA is right. You can't go forward anymore and get everything you need with a two-speed idle test which was also described by the Texaco fellow a little earlier. You can get some good results with a two-speed idle test. It isn't

trash. It is very good. But there are a number of other things and we are talking about NOX testing and moving on to things that are necessary and EPA has raised those issues. But even though the Sierra Paper of May 1989 was published and received worldwide, they chose to ignore it and not test it. Yes, either they really honestly believed that it would work which proves they were wrong again. The silence that EPA adheres to, if you seen in recent newspaper accounts, is not always smart. Or maybe some people simply said we want centralized. And IM 240 will give us centralized.

They never thought we would get data. They never thought we could do an independent testing. We have been in Washington as recently as last Friday assuring the White House, assuring Congressional leaders where that ARCO testing stands, how soon it will be in. I can't share it with you. I have preliminary reports on that testing. It is half done and I had a smile on my face. It is going to be all done in another couple of days, by Tuesday night. So, I think we are on the right path.

CHAIRMAN MCCALL: You just made a comment, I am sitting here thinking, I know we have some people from the service stations. And I guess some of the things that I see happening, when the federal government mandated that we test aboveground and underground storage tanks, that just played havoc in my district and a loss of service stations. But you

are talking about convenience right now. I don't have anybody probably in Landsford, maybe one station in Summit Hill which is my end of town, to be able to purchase and do testing if we are talking about decentralizing. Most of them in my district are AMs and PMs anymore. I don't have gas stations where I can bring somebody in with bays and have testing done. So, when we talk about decentralize, I think there could be an inconvenience in my area because I don't have gas stations and people of the expertise to actually do the testing and work if needed.

MR. GETMAN: May I ask you a question because I am not a Pennsylvanian?

CHAIRMAN MCCALL: Sure.

MR. GETMAN: Your district, is your district a highly urbanized district?

CHAIRMAN MCCALL: No, it is not.

MR. GETMAN: So, people are widespread. How many new car dealers do you have in your district?

CHAIRMAN MCCALL: Off the top of my head I'd say ten or 15.

MR. GETMAN: Every one of them can do that. In other words, I am not suggesting that new car dealers should be a part of this, but I am responding to your question. It is a very serious question and has very serious implications. If you get into rural areas where there is few

stations, why should you simply trust me, even though I think I might be right, that there is going to be so much money in this that a couple or three stations within your district will change. It won't be new stations. It will be existing bays where maybe they are not doing repair work anymore. They are doing what you just described, they are pumping gas, maybe a convenience store, maybe doing tire changes or some other simple stuff or maybe not even that. There will be a lot of money in it because the Clean Air Act pushes it and mandates it. And I am not suggesting it is unnecessary.

CHAIRMAN MCCALL: Then we get to the question of costs. A lot of things that this Committee does or this legislature does will be predicated on what EPA dictates. And if they dictate IM 240, one of the concerns that every one of us is going to have is what is that cost going to be to the consumer. You know, if it is not done in a high volume manner, will it be cost-effective? They are the questions we have to have answered. What is the use of having one of my stations putting in an IM 240 if he is charging $50 for an inspection. Whereas, if it is a centralized system, and we are running cars by high volume, it is eight dollars.

MR. GETMAN: One of your stations will not put in, I remind you, will not put in an IM 240. When we started looking for allies, because we were afraid for our businesses, the National Auto Dealers Association was the

first serious ally and many of the state groups have come aboard and worked very closely with us. Because they said, and after all, auto dealers sometimes have millions invested, they said we cannot afford to put in an IM 240. They couldn't. So, I imagine a service station certainly can't. So, IM 240 is a certainty for centralized.

Representative McCall, in your district you will be really in trouble in terms of your motorists, because while there will be a centralized facility someplace, it cannot be around the corner. At the same time you run into a kind of situation, let's assume IM 240 is mandated, but it doesn't exist commercially. It is not working in Hammond, Indiana. There are enormous problems with it. And so, EPA will have to back off for years and they will have to give people four, five, six, seven years to phase in. And there are these Clean Air Act deadlines. What about the citizens suits that are going to be brought when the deadlines hit and EPA has made its little deals. We will do this for Texas and that for Pennsylvania and this for New York.

CHAIRMAN MCCALL: I don't think they have that discretion.

MR. GETMAN: Well, no, they are acting as if they do.

CHAIRMAN MCCALL: But they don't.

MR. GETMAN: I know they don't and I have their paperwork. I have their paperwork. I have it in hard copy. We are not supposed to have it, but they have been meeting with centralized program managers. I guess that is a separate governmental function they do then they don't tell us. But see, a lot of centralized program managers are very unhappy about IM 240 and they are sharing with us because we do have some common interest. We are not angry at every centralized program manager. We are in business. We may sell them equipment in some instances. We think decentralized is better. But we are not here to fight with you. We are here to work with you and we are not going to tell you that every centralized program manager is some kind of evil person. That is not fair. We are talking about public policy. We think it accords better with our business. We think that a steady state loaded mode BAR90, auto dealers in your district are going to put it in within a couple of years, people in your district who do some repair work are going to look around and say, I am losing all this repair business to new car dealers. I don't want to do that. And some people will carry it.

What we find when a new program comes along is, some of the service station folks might spend new money. Some of the service station folks will come along and say we're not going to do this. It is too expensive. And we absolutely won't and we will drop out and to hell with it.

That is the guy who yells the loudest who comes and buys the first piece of equipment. Why? Because if you got the time to come yelling the loudest, he understands the business. He is worrying about the business and he is legitimately looking after himself not to have to spend more than he has to. But when it comes to I will have the business or I won't have the business, if the cost is reasonable, he is going to plunge in and get the business. The littlest people here who do very few tests now, the ones who have the least ability, the ones in some cases who are not so honest, and there is a few of those, they are going to drop out of this thing. They don't want any part of it. So, if you have X number of stations now doing decentralized IM, my seat-of-the-pants guess is expect to have 20 to 25 percent less. Because some of them just won't stick. Most will because there is serious money to make. They will be glad to make it. They've got to service those cars. They don't want to leave them.

CHAIRMAN MCCALL: Thank you.

MR. GETMAN: Thank you very much.

CHAIRMAN MCCALL: We're going to take a five or ten-minute break.

(Brief recess.)

CHAIRMAN MCCALL: I would like to call the hearing back to order. I would like to call on Sara Nichols, Delaware Valley Citizens Council for Clean Air.

MS. NICHOLS: Thank you for inviting me. Nancy Parks from the Sierra Club and I frequently exchange information and pass our understanding --

CHAIRMAN MCCALL: Excuse me, Sara. Nancy is --

MS. NICHOLS: This is Nancy Parks.

CHAIRMAN MCCALL: Are you going to do this together?

MS. NICHOLS: Yes.

CHAIRMAN MCCALL: Would you identify yourselves for the record?

MS. NICHOLS: My name is Sara Nichols. I am Staff Attorney for the Clean Air Council. It is a nonprofit citizens organization. We do environmental work in southeastern Pennsylvania, northern Delaware and southern New Jersey.

In the course of our exchanging information, particularly with regard to this hearing, we realized virtually everything we wanted to say was redundant. So, we thought we would spare you the agony of listening to the same thing twice and going over the same materials twice let alone the extra paper, and Nancy was kind enough to volunteer to be the one to present the whole statement.

MS. PARKS: My name is Nancy Parks. I represent the Pennsylvania Chapter of the Sierra Club and its approximately 20,000 members statewide. I would like to thank

you, Mr. Chairman, and members of the Subcommittee for the opportunity to testify today.

In 1988 Pennsylvania registered over 7,766,029 vehicles that each consumed 712 gallons of gasoline annually. And traveled 81 billion miles.[1] As our population continues to increase, our number of registered vehicles and vehicle miles traveled (VMT) will increase as well.

In 1988, nationwide, transportation sources were responsible for 67 percent carbon monoxide (CO) emissions, 41 percent nitrogen oxides (NOX), 33 percent of hydrocarbons (HC) and volatile organic compounds/non-methyl organic gases (VOC/NMOG), 20 percent of particulates, 34 percent of lead and 56 percent of toxic air emissions released to the atmosphere. Recognition of this problem led to auto emission regulation in the late 1960's, but gains from mobile source emission limits have been continually eroded by increases in vehicle miles traveled within Pennsylvania by two percent annually. Emission standards mandated by the Clean Air Act Amendments of 1990 (CAAA) will, at best, offset emission increases from vehicle miles traveled growth, while the new standard for NOX will not keep pace with emission

[1] Our Nation's Highways, Selected Facts and Figures, 1990. Publ. #FHWA-PL-204,HPM-10/490(50M)E.

increases from vehicle miles traveled growth.[2]

Pennsylvania had nine areas in nonattainment for SMOG in 1988, with Philadelphia described as one of the nine dirtiest metropolitan areas in the country. Pennsylvania has the seventh largest vehicle fleet and survives with the sixth highest vehicle miles traveled nationally. An American Lung Association study and also studies by the Northeast States Coordinated Air Use Management found that improvements in mobile source emissions standards comparable to those adopted in the Clean Air Act of 1990 would not bring Philadelphia into compliance for ozone before the year 2010, five years after compliance is due (Ozone standard compliance due 2005; 15 percent VOC reduction due 1996). Annual health care costs associated with motor vehicle pollution in Pennsylvania are estimated between $199 million and $4.2 billion. The The Regional Ozone Modelling For Northeast Transport (ROMNET) final report issued in June 1991 concluded that attaining the ozone health standard in Philadelphia will be difficult, even if aggressive VOC and NOX emission control strategies are implemented. "...the full complement of NOX controls, plus the maximum technology VOC measures may be necessary", while at the same time, mobile source reductions

[2]Michael Walsh and Blake Early. February 1991, Adoption of California Tailpipe program in Pennsylvania, Sierra Club.

from enhanced I/M programs, low emission vehicle (LEV) equivalent emission standards, reformulated gas (RFG), and heavy-duty diesel emission standards will be necessary.[3] Statements such as this from NESCAUM point to the absolute necessity for Pennsylvania to adopt stringent long term and short term, cost-effective vehicle pollution reduction methods.

California Tailpipe Standards/LEV Program

The adoption of the California LEV program will meet the long-term needs of Pennsylvania, and gain significant pollution reductions in a cost-effective manner (70 percent reduction in VOC/NMOG by 1997 and 50 percent reduction in NOX by 2000).[4]. Use of this program would benefit Pennsylvania with an additional reduction of HC and NOX of 580 tons/year each by 2000 growing to 1485 tons/year by 2005. NESCAUM has estimated LEV costs to be about one percent over current cost, while the California Air Resource Board estimates $70-$170 per vehicle. The LEV program is also much more cost-effective for emission reductions compared to stationary sources whose costs are about $4000 to $10,000 per

[3]Letter dated January 3, 1992 from M. J. Bradley, Executive Director (Northeast States Coordinated Air Use Management) to Dr. T. F. Yosie (American Petroleum Institute) on NESCAUM analysis of API report, Assessing the Economic Effects of the Eastern States Adopting California's Low Emission Vehicle Program, October 1991.

[4]Personal communication, Tom Cackette, Deputy Executive Officer, CARB, Sacramento, CA.

ton reduction. The LEV program emission reductions are estimated by Massachusetts to be $375 per ton reduction of SMOG forming emissions, and by the California Air Resource Board to be $800 to $1400 per ton reduction.[5]

Clunker Buy-Out Programs

This type of program apparently has worked effectively in California in the past two decades, but it is a good short-term goal only. This program could never replace the adoption of strong mobile source pollution controls that will offset increases in the vehicle miles traveled, long-term.

The state of California did a follow-up study of 800 individuals who turned in their pre-1971 cars for a one-time $700 payment and found that only 47 percent bought another vehicle. It is significant that over one-half did not put another polluting vehicle of any kind back onto the road.[6]

This program would have immediate and significant benefits since older, more polluting autos would be off the road faster. This program, of course, will do nothing to offset increased vehicle miles traveled in the future. For that reason, the Sierra Club and the Delaware

[5]D. B. Cohen, State Government News. August 1991, pg. 18.

[6]Personal communication, Barb Kooser, staff scientist, Chesapeake Bay Foundation.

Valley Clean Air Council urge that this program cannot be used alone as a substitute for a long-term solution, such as the Low Emissions Vehicle Program.

Reformulated Gas (RFG)

The Clean Air Act Amendments require that gasoline sold in the severe nonattainment area of Philadelphia be cleaned up by 1995. During the summer months (the ozone high season), gasoline must contain lower VOCs and toxics, less than one percent Benzene, and no less than two percent oxygenates by weight. The Clean Air Act Amendments provide that the governor of any state may elect to apply this program to any nonattainment area simply by notifying EPA.

There will be two types of reformulated gasoline available; a California and a federal EPA recipe. California's recipe will provide significant pollution reductions in tons/day of VOC/NMOG, CO, NOX and SO_2, but it will cost significantly more. California Air Resource Board estimates $0.14/gallon gasoline for CA/RFG and $0.04/gallon more for EPA/RFG. EPA estimates that its recipe will cost $0.015/gallon, with a ton VOC emission reductions costing about $1000 to $2000 per ton. Still significantly less than the cost to reduce at a stationary source. Pennsylvania can still attain a benefit of 58 percent of VOC/NMOG reduction, 87 percent CO reduction and 25 percent NOX reduction that CA will achieve with its recipe, if we use the EPA/RFG formula

at its lower cost. The Sierra Club and the Delaware Valley Clean Air Council are recommending that the EPA/RFG formula be used in Pennsylvania.

Enhanced Inspection/Maintenance

The Sierra Club and the Delaware Valley Clean Air Council support a centralized enhanced I/M program for Pennsylvania because it will be the most effective in reducing emissions and most cost-effective.

EPA studies conclude that a centralized (independent) enhanced I/M program is 20-40 percent more cost-effective than our current decentralized program. The California Air Resource Board data show that 32 percent of California's vehicles that should have failed inspections have not. The advantages of the centralized program are:

(1) Centralized is less expensive, averaging $8.42 in 12 states that are using that, and some of those states are also using dynamometers while decentralized costs average $17.70 per inspection. EPA estimates $250 million annual savings in enhanced I/M areas.

(2) Consumer protection increases will be realized since the centralized program will separate inspection from repairs, dissolving any conflict of interest issues, particularly since the new repair waiver limit has been increased to $450 from $50.

(3) Repairs can be done at decentralized

stations currently handling both functions, but reinspection at centralized facilities is a major deterent to fraud, and a check of repair effectiveness, and

(4) This high technology inspection program will legitimately increase repair revenue and offset inspection revenue lost. EPA estimates repair revenue increases of $1 billion annually will be achieved in enhanced I/M areas if a high tech program with a $450 waiver limit is implemented.

In summary, The Sierra Club and Delaware Valley Clean Air Council support

(1) The adoption of the California LEV program, with or without a

(2) Clunker buy-out program

(3) The use of the federal/EPA RFG formula, and

(4) A high tech, centralized enhanced I/M program, using the $450 waiver.

Thank you.

CHAIRMAN MCCALL: Questions?

(No response.)

CHAIRMAN MCCALL: Thank you. No questions. You are off easy.

MS. PARKS: Thank you.

CHAIRMAN MCCALL: Norman Childs, American Lung Association of Delaware/Chester County.

MR. CHILDS: I am Normal H. Childs, Chief Executive Officer of the American Lung Association of Delaware and Chester Counties, 1534 McDaniel Drive, West Chester, Pennsylvania. The American Lung Association is America's original voluntary health agency, tracing its beginnings to the Pennsylvania Society for the Prevention and Control of Tuberculosis, formed 100 years ago this year here in Philadelphia. Today, we are concerned about the prevention and control of lung disease in all its forms.

My personal involvement with air pollution control in Pennsylvania began in 1967. I served for ten years as a member of the Citizens Advisory Council to the Department of Environmental Resources, and as one of its representatives to the Environmental Quality Board for five years. I have closely followed the development of our state's air pollution control program through the years.

I appear here before you today as an advocate for health, lung health, to urge this Committee to take the action necessary to reduce ozone pollution from motor vehicles.

Asthma is one of the major concerns of the American Lung Association. Asthma is on the increase in America, affects an estimated 9.9 million persons, and several studies have now correlated increased asthma attacks with increased ozone levels.

George D. Thurston, assistant professor of environmental medicine at New York University, found that asthma admissions to 87 hospitals in New York City and 35 in Buffalo increased by 25 to 30 percent on the days when ozone levels were highest in the summer of 1988. He also reports that on days when the ozone concentrations were above .12 parts per million (the federal standard) asthma attacks among children attending a summer camp for asthmatics increased by 30 percent.

A study in Atlanta demonstrated a one-third increase in visits to a pediatric emergency clinic by asthmatics on days when ozone exceeded .11 parts per million during the summer of 1990. And a third study at the Robert Wood Johnson Medical School in New Jersey found a relation between ozone and hospital asthma admissions at nine hospitals in north central New Jersey during the summers of 1988 and 1989.

These studies document what our physicians have suspected for years, asthmatics react adversely to smog -- ozone -- in the air they must breathe. Our present automobile emission inspection system obviously isn't doing the job it was intended to do, and we are now required by the Clean Air Act Amendments of 1990 to improve on this system.

Speaking for the American Lung Association of Delaware and Chester Counties; the American Lung Association

of Bucks County; the American Lung Association of Philadelphia and Montgomery County and the American Lung Association of Pennsylvania in Harrisburg, we suggest that in order to adequately protect the health of our asthmatic children and adults, many of whom are poor, are minorities, and who live in the inner cities, we must adopt the most effective I/M program possible. We believe technology has advanced dramatically since our original I/M program was adopted, and urge the Commonwealth to adopt a centralized I/M program as the most effective way to protect the health of all of our citizens.

Thank you for the opportunity of appearing here today before you.

CHAIRMAN MCCALL: Questions?

BY REPRESENTATIVE HAYDEN:

Q Mr. Childs, Nancy Parks mentioned in her testimony the American Lung Association study reported to study mobile source emission standards in Pennsylvania and compliance deadlines as well as anticipated health care costs for failure to comply. Could you get a copy of that study to our Committee of that?

A Yes, I'll provide a copy of that study.

CHAIRMAN MCCALL: Any other questions?

(No response.)

CHAIRMAN MCCALL: Thank you very much, Mr.

Childs.

Finally, we have Claude Baldino from the Delaware County Inspection Station Operators.

MR. BALDINO: Thank you for letting the Delaware County Inspection Association come here and testify. My name is Claude Baldino. I am President of the Delaware County Inspection Association. Myself and David Lee, who is on the Executive Board of the Inspection Association, are here today representing the Emission Inspection technicians. We realize that Pennsylvania has to enhance the I/M program and that Pennsylvania is considering a centralized system. We feel strongly that a centralized system is the wrong way to go and we also feel that the decentralized system can be improved. Although there have been many problems in the past, the system works. Today we would like to give our opinion on how this system could be enhanced when you enhance the I/M program and keep it decentralized. I would like to turn the report over to David Lee at this time.

MR. LEE: Thank you, Claude. I am David Lee, and Executive Board member of the Delaware County Inspection Association. Mr. Chairman and distinguished members of the House Transportation Committee and Subcommittee on Transportation Safety, thank you for the opportunity to speak before you on the subject of Pennsylvania's I/M inspection program.

I have also some attachments for your information. As we go through them, I will just refer to them occasionally. Attachment A is nothing more than the credentials that I have gathered through the years.

To reflect for a moment, Pennsylvania's safety inspection record through the years has brought much praise from other state officials that I have been privileged to meet while traveling to obtain I/M and other automotive related information. The fact that Pennsylvania's independent shops do safety inspections and emission inspections under two different enforcement arms surprises many, in the fact that each system program operates efficiently. I have been privileged to receive I/M program rules and regulations from other states that have or are beginning their programs. I have been able to observe, discuss and examined other states' efforts and their implementation programs for I/M inspection. Certain states/areas have the centralized I/M programs and other states/areas have the decentralized programs.

If you refer to Attachment B, this is Inspection Maintenance Program Implementation Summary which is published by the federal EPA and this is dated January 1992. If you look at the top column you will see regions, states and areas program, when it started and what type it is, whether or not there is a Tamper Test, a Waiver Type and also the test fees throughout the United States. Vehicles that are

included, any exemptions and light-duty cutpoints for HC, CO and so forth.

You will note the third column down, New Hampshire, you will note that only CO is inspected in that particular state. As you would work back through this particular summary, you would see there are other states and areas that do the same thing that do not measure hydrocarbons.

I have worked with California's SMOG testing administrators, both in the Standards and Training Branch of the Automotive Engineering Branch and I believe their system is one of the best decentralized programs that I have seen to date. However, they have organized their program through many years. They currently provide a fleet of 2200 vehicles just for covert operations with a strong enforcement arm and require technician training of from 44 hours to 104 hours, depending upon the qualifications of the individual. They inspect approximately six million vehicles a year.

The Commonwealth of Virginia has one of the better decentralized programs, using the BAR84 with disc data collection. Each compliance officer is equipped with a laptop computer to complete reports and to download the stations' I/M tester computer data bank, return to the main office and download the laptop into the program's master computer system. Virginia's I/M program will be updated to

the BAR90 system and remain, as I have been told, a decentralized system. They inspect approximately 500,000 vehicles annually.

During my observations of centralized programs, I found Florida's centralized program the most highly computerized, with almost instant access to the state's vehicle registration data bank, for the contractor to determine if the registration plate and vehicle identification numbers are valid. The vehicles are tested at idle with no engine preconditioning. Should the vehicle fail the I/M test at idle, the engine is them preconditioned on a dynamometer, at a speed of 30 mph for 30 seconds and retested while in the idle mode.

Attachment C, if you refer to that, is a diagram of how the computerization is set up within the contractor's main office through the state government and through the District Licensing Agencies. You will notice that the fleet inspection and reinspection stations are actually tied into the contractor's main computerization.

Three private contractors are operating in the affected six counties with a projected inspection of five million vehicles. However, I was told this projected number included a great number of rental vehicles, which seemed to be registered in other counties when the inspection was due. With the program beginning last April, 1991, 60 reinspection

facility applications had been received, but only one authorized reinspection facility was approved by the state by November, 1991. The reasons for the small number of approvals are, a required background check by Florida's State Police and the federal FBI of any one applying (which can take up to six months), the initial cost of authorized equipment, the computerization required and its routing through the private contractor who controls that area and the training of personnel (40 hours) to repair failed vehicles and operate the reinspection facility (the reinspection facility cannot charge any fee for the reinspection of the failed vehicle). One must remember, Florida had worked on this program for over two years, plus having the registration data bank in place before the program began.

To date, the states with decentralized programs using analyzers meeting or surpassing the BAR90 specifications seem to provide to the public no lines to wait in, personal recognition, less confusion, less downtime for their automobile and the one-stop shopping effect that seems economically acceptable in both time and money to the motoring public.

With the use of major on-board electronics to control engine fuel management in the vehicles since 1981 and later, the emission of hydrocarbons (HC) and carbon monoxide (CO) have been greatly curtailed. As one would note from the

varied state pollutant inspection cutpoints as to a pass/fail determination by an analyzer machine, CO has been at a pass point of 1.20 percent or below and HC has been at a pass point of 220 ppm or below since 1981, with no changes since that date. Within this year span, and with emission required components in place and operating, the pollutant levels many times register from 25 percent to zero for CO and from 25 ppm to zero for HC, with CO_2 in the 12 to 14 percent range, indicating an efficiently operating engine.

Should these vehicles fail the I/M test, the causes are usually poor maintenance on the owner's part, inoperative or missing emission components, or the fuel management system not being in the "closed loop" operating mode which delicately and electronically controls the air/fuel mixture entering the engine and having the spark occur at just the right time to ignite the mixture for proper burning.

With the use of the oxidizing three-way and dual bed catalytic converters and properly operating air management systems to inject air into the exhaust stream at predetermined points, the remaining HC and CO pollutants are burned before exiting the exhaust system. The development of nitric oxide is formed at combustion temperatures of 2500 degrees Fahrenheit and above. With properly operating three-way catalytic converters temperatures of the exhaust

gases are lowered when passing over reduction catalysts within the converter, thus lowering the temperature to under the magic temperature of 2500 degrees Fahrenheit and causing the elimination of NOX from the exhaust.

Refer to Attachments D-1 and D-2. What I have there is a basic diagram of a three-way catalytic converter. You will notice on the right-hand side we have NOX coming into it and the reduction portion is the one on the left. You will notice there nitrogen and oxygen separate. We have air injected into the center or the center of the dual bed and we go into an oxidation section.

On the next page, D-2, is nothing more than a hypothetical reduction of combustion temperatures. The upper portion, the upper left, you see combustion chambers in the 4000 to 4500 degree area. As it leaves the engine and follows the exhaust to the converter, you notice that it could commit at 3000 degrees at the reduction portion, come down to 1000 or 2000 degrees. We have air coming in from the mixing chamber and the oxidizing portion will work from 900 to 1500 degrees. At the right I have that catalytic conversion starts at 500 degrees. Ranges 900 to 1500 degrees and tops is 1800 degrees when in operation. Oxide and nitrogen should separate at 2500 degrees. So, if your catalytic converter is doing the job, it will reduce the oxide and the nitrogen.

Gentlemen, this is not a class in emission

control, but to give you a better understanding of some components used to control the pollutants from the automobile engines. The degradation of these controls do not happen quickly. By federal law these components are required to perform properly for five years or 50,000 miles, whichever occurs first, with California requiring a seven year or 70,000 mile warranty. With proper maintenance, these components can last the useful life of the vehicle which is 100,000 mile. Beginning in 1995 new warranties will be required from the vehicle manufacturers.

What I have done on Attachments E-1, E-2 and E-3 is to give you a sample of 1992 Federal Emission Control Systems Warranties for GM vehicles and the first page, E-1 is a five year 50,000 miles emission defect warranty and the next page is seven year or 70,000 miles for California. So, at least you can pursue that and maybe get a better understanding of some of the warranties we are encountering.

The Clean Air Act of 1990 requires decisions from both the federal EPA and the states that are required to improve their ambient air quality. The federal EPA has not published the necessary guidelines required by the law in the time frame allotted. We do know their future guidelines will include the push towards centralization of the I/M inspection program.

It is the belief of many individuals and

businesses involved with Pennsylvania's present I/M program that it can be made to comply with the requirements of the federal EPA, with the use of the decentralized program, statewide, using analyzers meeting the BAR90 specifications and the beginning of an anti-tampering inspection of every vehicle in the state and with a registration denial if the vehicle does not comply with the I/M inspection rules and regulations.

This next attachment, F-1 and F-2 is the required information from the program for EPA records. And the F-2 paper is nothing more than test procedures currently in use in the I/M program which goes from state to the various areas within the country.

We must recognize that many vehicles not in the I/M program at present, (i.e., not registered in an affected area) do travel to areas where registered owners are required to obtain an emission inspection. This type of situation at present is not controllable. Work requirements may necessitate this situation and should be corrected so all owners are treated equally.

Pennsylvania's I/M program is unique in the fact that zip codes were used to designate the original three areas, the Pittsburgh area, the Philadelphia area and the Allentown/Bethlehem/Easton area, encompassing approximately 11 counties, designated to become emission inspection areas.

Under the Clean Air Act of 1990 the federal EPA is requiring the state to include 22 more counties covering the areas of Altoona, Erie, Harrisburg, Johnstown, Lancaster, Reading, Wilkes-Barre/Scranton, State College, Williamsport and York. The report dealing with the failure of 96 areas to meet the ground level ozone (SMOG) standards and the 41 areas violating carbon monoxide standards were released Thursday, August 16, 1990 through the EPA Environmental News, using data collected in the three year period of 1987-89, just in time for inclusion with the Clean Air Act of 1990 and for the utilization by the federal EPA to determine future directions for improvement of state clean air plans (State Implementation Plans or "SIPS"), which the EPA must approve or disapprove.

It is not a simple decision for the Committee to make in determining the direction Pennsylvania's I/M program should go.

The Delaware County Inspection Association wishes to go on record as supporting the following points:

(1) Retain our decentralized system for I/M inspection.

(2) Lift the $8.48 cap and let the market level the cost, or have the inspection at one-half the repair shop's hourly rate. (Refer to NJ PIC) And see basically how they operate that.

(3) Include the entire state in the requirements of the I/M program, not just the added 22 counties.

(4) The I/M program should have registration denial enforcement.

(5) Maintain the safety inspection as a certificate enforcement program.

(6) Enhance the I/M program with the BAR90 specification requirements for new analyzers.

(7) Perform a mandatory anti-tampering inspection on each vehicle before the actual tail pipe inspection is done. The complete inspection must be accomplished, regardless of the vehicle failure.

Attachment G is nothing more than the Model Year Coverage of Anti-Tampering Inspections. Following down to where Pennsylvania is listed, you will see that it is a decentralized type of network and we do no tampering inspection. We are supposed to do it in case the vehicle fails, but that is not always done.

NOTE: A tamper inspection is done to ensure the vehicle's original emission control components, required by EPA to certify the vehicle for sale in the USA, still remains in place and are in working order. Some states only require certain components, such as fuel inlet restrictor, OEM fuel cap and catalytic converter to be in place. I have

attached a few certificates from other states which include inspection of components to determine if tampering has been done and also a visual inspection requirement from California's BAR90 system. An Emission Application Manual and necessary repair manuals must be required and updated yearly by the inspecting shop.

If you refer to Attachment H, you will see the first one is The Visual Inspection which is a BAR90 screen from California. On the left side they have a list there of various components which must be inspected. The next one would be from the Commonwealth of Virginia. The next is from Florida which entails two pages and H-4 is New Jersey's Private Inspection Center or PIC and I have the last one from the state of Maryland. Should the vehicle fail, these are the items which must be inspected before the vehicle can apply for a waiver.

(8) Have all hard-core failures and waiver applications directed to a state operated referee station, located strategically throughout the state counties. Stationary and portable I/M testing units, with dynamometers, could be used and remain in an area as long as required. Remote sensing devices are available for locating high emitters and through enforcement, could require these vehicles to be repaired.

And if you refer to Attachments I-1, I-2, I-3

and I-4, you will see that we do have new technology in the remote sensing area. On page I-2, the applications can be random inspection, tampering inspection, mass data collection, hot spot inspection, attainment fleet monitoring, traffic signal setting, entrance/access limitation, driver information, just to name a few.

(9) Have state operated dynamometers available to monitor oxides of nitrogen (NOX). This could be accomplished during Item 8. At the present time, representative sampling of a state's automotive fleet could be accomplished. (Is as low as one percent of vehicles tested).

And I will go off the record for just a second. Florida, at the present time has put in their oxide and nitrogen test bans for testing within the contractors' areas and they are testing one percent of vehicles that are coming through their particular areas. If you have 100 vehicles coming through, they are only testing one vehicle for oxide and nitrogen at the present time.

(10) Many have, as authorized I/M inspection stations, invested much money into analyzers, training and service policies to maintain the high quality of machine testing that the Pennsylvania DOT requires. At least 90 percent of the existing stations are willing to reinvest in the new BAR90 analyzers to maintain the rapport we enjoy with our customers. Should the entire state become included in

the program, a steady increase of I/M inspection stations would be noted.

(11) Should the state decide to commit to a centralized program with private contractors performing the I/M inspections, it may be difficult for the vehicle owners to locate a repair shop that would want to become involved with I/M related repair work, to avoid becoming part of a ping-pong effect for the customer.

(12) We have the electronic technology, the required on-board diagnostics, the existing emission components that have been continually updated to provide better control of the pollutants being emitted. We need to control the pre-1981 vehicles, which according to many surveys and tests, contribute up to 80 percent of the pollutants that are emitted by today's vehicle fleet. This is a condition that will be forced to disappear when the new waiver rate of $450.00, mandated by the Clean Air Act of 1990 goes into effect. The technician training and certification remains a large factor in the future direction of the I/M program. We must require and provide current and up-to-date service and repair information to all involved.

Gentlemen, these are comments and observations that I and many others involved with current I/M programs have encountered and discussed. The Delaware County Inspection Association members are willing to assist the

Committee members to clarify any points that have been discussed and to offer assistance to the Department of Transportation personnel, responsible for the implementation of the new rules and regulations for the future I/M program.

Thank you for your time and consideration. I would be glad to answer any questions that you or the members may have. If there are no questions, I would like to have Mr. Baldino conclude our testimony before your Committee. Thank you.

CHAIRMAN MCCALL: Any questions?

REPRESENTATIVE HESS: I have one question.

BY REPRESENTATIVE HESS (To Mr. Lee):

Q As I look at the certificate from, I guess, it is Virginia, the emissions test and I look down the side it says failed pass, pass failed, pass. This particular vehicle here --

A Which type of survey?

Q It is H-2, H-2.

A H-2?

Q Yes.

A On the right-hand side?

Q On the right-hand side where it says PCV system failed and evaporation system failed. For my own information, if this vehicle was to be repaired, what would be approximately a ball park figure cost to have that vehicle

repaired to be able to pass this test?

A Let me do this with the emission control system. You look at the PCV system, you find the PC value was either missing or disconnected or the hose was broken, whatever the case may be. Now, this would be a simple matter of repair. The cost may not even involve ten or $15. However, if we get into where the PCV system would enter the induction system and may burn out possibly part of that induction system, then your cost would skyrocket. You could have possibly a base underneath the carburetor which may necessitate being replaced at a cost possibly of anywhere from 40 to $70 or higher.

So, this would have to depend upon what the problem would consist of. If it is an evaporative system, this could fail. Possibly we could have a canister which would be filled with gasoline, raw gasoline. How did the gasoline get there? This is something the technician would have to find out. Why is that there? It is not supposed to be there. All the canister is supposed to do is to store vapors from the fuel, not raw gasoline. These are some of the things -- it is a hard question to answer because of the complexity of what may have caused the problem to start with.

This particular technician, as he went through the emission inspection, found the PCV system has a problem. The catalytic converter as far as he was concerned was fine.

The air injection system, the air pump worked or whatever. The pipes were all intact. It came down to the evaporative system, you either smell gasoline or lines were broken or disconnected. So, again, this particular system would fail.

He went on down to the fuel restricter. He pulled the gas cap off, looked down into the inlet where you put your fuel into the gas tank and he found that the restricter was a little trapped, what was there. Now, that would pass. Visible smoke in the state of Virginia, they are not to be allowed more than five seconds. If there is visible smoke, then the vehicle fails this particular portion of the emissions inspection.

REPRESENTATIVE HESS: Thank you.

BY CHAIRMAN MCCALL (To Mr. Lee):

Q What type of equipment do you use currently in the Commonwealth, testing?

A For now?

Q Yes, now, for emissions. Is it BAR80 modified to BAR84?

A It is a computerized system.

Q Is the probe up the tail pipe?

A Absolutely. The only time we do a tampering inspection is if the vehicle fails the initial inspection. We do a preconditioning of the engine up to 25 rpms plus or minus three for 30 seconds.

Q Preconditioning, is that heating up?

A Right.

MR. BALDINO: 25 rpms.

BY CHAIRMAN MCCALL (To Mr. Baldino):

Q I'm looking at the catalytic converter. It seems to me if your car is not at a certain temperature it is not going to pass.

A A car has to be at operating condition to go through any emission test. You are not even in a closed loop when your engine is cold. The computer has to put it in closed loop or you will fail every time.

BY REPRESENTATIVE HESS (To Mr. Baldino):

Q Does octane have anything to do with this emission test?

A Not really, not right now.

Q The higher the octane, does your fuel burn cleaner at a higher octane?

MR. LEE: You will derive more power from higher test gasoline than what you will from regular. Regular gasoline has a flash point which burns gas very quickly, thereby leaving a lot of residue in your combustion chamber and so on. Where your high test gasoline has a higher flash point where it will ignite and consequently will burn more thoroughly leaving less residue.

REPRESENTATIVE HESS: So, you have less

emissions?

MR. LEE: To a degree, yes.

MR. BALDINO: But we are speaking of nonleaded gas now, correct?

REPRESENTATIVE HESS: That is right.

MR. BALDINO: Leaded gas is a whole --

REPRESENTATIVE HESS: That is another ball game.

MR. BALDINO: That's another chapter. I can't find any in Delaware County. It may exist. I really can't find any.

REPRESENTATIVE HESS: The reason that made me ask that was that in the other testimony this morning it was testified that Pennsylvania does not do any octane testing.

MR. BALDINO: I think that octane testing means if you have regular and high test at your station. For someone putting regular in a high test tank and telling you it is high test, that is what I think they meant by octane testing.

MR. LEE: You do have certain arms of your government which comes through. This could be local government that does come through and test what is taken from the pumps to verify that if you are selling a high test fuel, that it is a high test fuel or if you are selling a regular fuel, that it is a regular fuel.

REPRESENTATIVE HESS: I know the local

sealers of weights and measures in the counties, they test for volume accuracy.

MR. LEE: Right.

REPRESENTATIVE HESS: But I wasn't aware that they check for octane accuracy. I don't know how they would do that.

MR. LEE: Even federal agencies will come in and check for either high test or regular fuel just to make sure you are selling what you say you are selling. This I do know. I have run into this during my travels throughout the country where I have been acquainted with numerous people who have operated service stations and have had this happen to them where the people will come in, take samples and verify what they are selling is exactly what they are supposed to be selling.

REPRESENTATIVE HESS: You say that is done f e d e r a l l y?

MR. BALDINO: Yes. But a normal car in normal specifications, whether you use high test or regular fuel, if the system is working correctly, you will absolutely pass any emission testing you can put on the car; absolutely without a doubt. Some newer 1992 cars, the sequential fuel injected computerized engines specify to use regular gas and not high test now. That is how far they have come. A new 1991-1992 car that has sequential fuel injection computer driven, that

is state of the art right now. I really feel if you were to inspect a 1991 or 1992 car, the readings are so slow on our instruments right now it is almost impossible for them to fail. I really feel that emissions will go away in five or six years due to technology. When you check an engine like is in an automobile right now, like a General Motors car, when you have experienced that amber light that goes on and it says check engine, that means your emissions control device is, something is out of whack. It doesn't mean you can't drive the car. That is why it is amber. It is not red like out of water, you are not charging, no oil pressure. You can still drive a car like that but when that engine light is on, it is telling you you are out of specs.

REPRESENTATIVE HESS: The car is not operating efficiently?

MR. BALDINO: The newer computer operated cars it either operates correctly or you have a big problem. The window is very wide there. It is not like it used to be. You can't just limber down the highway. In fact, Chrysler won't even allow the air conditioner to come on. They put you in what they call a limp-in. You won't do over 25 miles an hour but you will get home and you will get your car fixed.

REPRESENTATIVE HESS: Thank you.

MR. BALDINO: To conclude --

BY CHAIRMAN MCCALL (To Mr. Baldino):

Q Can I just ask a couple of questions here? Again, I think the charge of this Committee when anything goes before the General Assembly, they are going to ask what the cost is going to be to the consumer. What consumer protections are we going to have here and consumer convenience? They are all going to be issues we are going to have to deliberate and debate on the floor of the hall.

As far as consumer protection, I would like to hear your comments should the EPA come out and say a centralized or decentralized and we just don't know. I think it depends on whether or not it is the I/M 240 or BAR90. I think hearing the testimony here today I think we are leaning toward the I/M 240. But in addition to that, I would just like to hear your comments. If you do the inspection and the requirement being you will not be allowed to do the repair work, what are your thoughts on that?

A If it is in-house, I feel the technician, who is qualified in testing and repair, can repair. A centralized system is not going to have that technician. It is not going to pay that technician just to test. If they feel they are going to do the repairs, if I test a car I want it repaired. If you go central, sure, it would be hard for me to say how you actually would handle it. But that is why we want the referee station set up.

Q. I think I went to Maryland, I am almost

positive they had referees right on site at the centralized system or somebody from the Department of Transportation was on site should there be a dispute or any questions concerning the inspection. I don't know about the retest. I think they would be inspected if they failed. They would have to go and get work done to their car and then come back through the line and get a retest and recertified free. That is on a centralized system.

What I am saying is that if EPA comes out with requirements that if you do the test, no matter who it is, if you do the testing, you cannot do the repair work.

MR. LEE: In my opening statement, I think that would definitely be the wrong way to go. I can see where this would happen in the centralized type of inspection. However, in decentralized you can designate that you have A mechanics and B technicians. A would be only to do the testing, operate the machine. A B technician would be the person who would be eligible to repair those particular components on the car to bring it back into compliance. This is one way you could designate that it could happen.

BY CHAIRMAN MCCALL: (To Mr. Baldino):

Q I'm not insinuating by any means that there will be people that will be taking advantage of the system, but where is the consumer protection in that? We will have someone doing the work or doing the inspection and then

giving it to the person right next to him and saying, okay, you have $450, start doing some of the repair work. Where are the consumer safeguards or protections, you know, that there is not work done on that car that may not necessarily have to be conducted?

A Say you had a decentralized program, I had a BAR90 and your car came into my shop and it failed. The technician, by looking at the readings, can put it into categories, air fuel, electric. He cannot give you an approximate price at that point but he can get close and say, if the decision is a little hard for you to make, take it to a referee station and get it retested. In other words, if he doesn't -- let him go to a referee station. We don't have a problem with that and never had a problem repairing a failed vehicle in working with our own customers. That has never been a problem ever.

Q When you look at the states that have decentralized systems, and California being one of them, and you listen to the testimony that the Sierra Club gave to us today, 32 percent of the cars that were tested -- that were retested by EPA, they found to fail -- or they passed the inspection but when they were retested by EPA or by the department, the cars technically have failed. 32 percent, that is a significant number.

A I understand that number. I'm going to say I

question the numbers. But some of these reports are made, just like in the state of Pennsylvania, 80 percent of the problems on emissions was with record keeping only. It had nothing to do with the automobile passing or failing.

Number two, if they were reinspected on a tail pipe test, what state was it done? Was the car hot or cold? You are asking us questions as to problems that really don't exist with us. I mean that sincerely. They really don't exist. We have never had a complaint. You have a referee station right in Delaware County. If you were to pull it out, I don't think you'd have -- it would be very little.

Q So, right now in Delaware County if I went and had my car inspected and you failed me, I can go to a referee and say check it?

A Absolutely.

Q He will do the test?

A Absolutely, for free. That is his job. That is his job right there. It is right in Barclay Square.

MR. LEE: These are compliance problems. They would verify that the test was done properly and completely. If we, as an inspection station that did the inspection did it wrong and we were at fault, then they would come down on us. However, I don't know of anybody that has gone there and ever had repercussions brought against them because of a faulty inspection which they have done.

BY CHAIRMAN MCCALL (To Mr. Baldino):

Q When you talk about the repair work, right now, see, I have some concern. I am speaking for myself and not the other members of the Committee. But when the repair work, right now there is a 25 to $50 threshold on repair work. That number is going to increase to $450. That, to me, is a significant amount of money. My concern is that, are we going to have people that will be doing work on these automobiles that will not be necessary?

A Well, first of all, I made a survey in my shop. From 1988 on up I don't think I have a two percent failure rate, from 1988 on up with the present specifications, two percent and 220 parts per million.

Q Do you have to be licensed, by the way, to do the initial testing?

A Absolutely, certified by the state. Beyond the fact of Dave's credentials, he teaches the course.

Q My county is not included in the inspection program currently but will be with the new regulations. That is why I am educating myself.

A You have to go to school to receive your certificate. To go to school you have to go through a pretest. If you can't pass the pretest, you can't go on with the course.

Q If EPA requires the I/M 240 would you purchase

that and conduct the tests?

MR. LEE: Definitely not. The I/M 240 really, the paperwork that I receive from EPA and from some other people, the cost on that would run approximately $20 per vehicle.

BY CHAIRMAN MCCALL:(To Mr. Lee)

Q To do the inspection?

A Yes, sir.

Q And at what volume?

A Well, it is a four-minute test, but how long does it take to set the vehicle up for the particular test? How long would it take to run it through the reports that are necessary and wait for the computer to print them out? Consequently you are running anywhere from 15 to 20 minutes for one of the I/M 240 tests. Plus the fact that the other surveys made by other companies, and they found that the operators cannot even follow the line which the computer tells them to follow. It is like a driving course in a penny arcade. The operators cannot do it. So, consequently, you must hire a professional driver really to drive the course for the owner. The owner must step out of the vehicle and have the operator sit in his place.

Q I was under the impression there was like four stations and the car went through the four stations. You are saying --

A Four lanes.

Q No, not lanes, stations. There is how many ever lanes, but in each individual lane there will be four stations to have the test conducted?

A One thing you have to be very careful of, and I notice this in all of the centralized areas that I have been to, is the safety factor. Any time you run a vehicle on a dynamometer you cannot have anybody or anything in front of it. And it is a good idea to have the doors open because there has been runaway vehicles.

MR. BALDINO: There are portable machines on the market today. In the tail pipe, the unit is about this big (demonstrating) and it sits on the front seat.

BY CHAIRMAN MCCALL (To Mr. Baldino):

Q And drive the car?

A Exactly. The dynamometer is only there to simulate the road test such as 30 miles an hour, 45 miles an hour. These machines that are out there that are portable, you drive the customer's car with this hooked up. Naturally it is not approved by the state. There is no credentials. The one I looked at is OTC. They're the people's equipment we buy take care of all of our computer cars. We can tap right into the car's computer system with their instrumentations, like state of the art. They have been around for years. They make a four-gas analyzer. It goes in the tail pipe of the

car. I put that on the front seat and I can drive around as much as I want. There is a lot of alternates that the dynamometer, number one, the only one in Delaware County that I know of is the Keystone Diagnostic Clinic and they use it and it does not take four minutes to run a car on a dynamometer. It does not take four minutes. It will take three men on roller skates to hook it up. I don't believe four minutes. I would like to see it first of all.

CHAIRMAN MCCALL: We'll have to see what EPA says.

MR. LEE: This is what our biggest problem, really. What are the guidelines. In my own opinion, as far as the $450 waiver limit, whether I think it is outlandish, I don't think it is feasible. But it was passed by the federal government.

CHAIRMAN MCCALL: Well, I think you will get agreement from everyone sitting at this table.

MR. LEE: Even in California the highest they have is $300 in 1981 and later vehicles. This, you talk about consumer protection, this does not protect the consumer when we have a waiver limit of $450.

MR. BALDINO: The average cost right now on a car above 1981 that fails emissions, the emissions problem, the average cost for the repair is only $25 unless a component part of the automobile is broken, removed, not

there or not working at all. But as far as the vacuum lines, the PCV value, things of that nature and adjustments, the average repair work hardly ever goes over $25 unless there is an actual component part broken and that can always be justified.

CHAIRMAN MCCALL: Any questions anyone?

(No response.)

MR. BALDINO: The Delaware County Inspection Association has submitted their report and made clear the position we are taking. Decentralized, in-house testing, and repair would secure jobs that may be terminated in the near future. We urge the state of Pennsylvania to consider all situations and problems a centralized system will bring about. Thank you very much.

CHAIRMAN MCCALL: Thank you. That concludes today's hearing and I want to thank all the people who testified for presenting their testimony on this most important issue. We certainly appreciate the comments delivered by all involved. We will certainly compile all of the data and review all the data before we make any moves as far as legislation is concerned in the General Assembly. So, thank you all very much.

(Whereupon at 1:30 p.m. the hearing was concluded.)

I hereby certify that the proceedings and evidence taken by me in the within matter are fully and accurately indicated in my notes and that this is a true and correct transcript of same.

Dorothy M. Malone
Registered Professional Reporter
135 South Landis Street
Hummelstown, Pennsylvania 17036

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