

**The Minutes of the  
Air Improvement Resources Executive/Advisory Committee Meeting  
Alamo Area Council of Governments  
8700 Tesoro Drive, Suite 100, San Antonio, Texas  
Wednesday, April 23, 2003, 9:00 a.m.**

**Executive Members**

Com. Jay Millikin, Chairman, Comal Co  
Mayor Patrick Heath, City of Boerne  
Gene Uptain, Greater Bexar CCC  
Judge Marvin Quinney, Wilson County  
Councilwoman Bonnie Conner, MPO Vice-Chair  
Mayor Adam Cork, City of New Braunfels  
Renee Green for Judge Nelson Wolff, Bexar Co.  
Councilman, Ernest Hernandez, City of Seguin  
Mayor Raymond Ramirez, City of Floresville

**Air Tech Committee**

Cyndi Levesque, CPS  
Stanley A. Dabney, Alamo Cement  
Charissa E. Barnes, TSIA  
Pam Bransford, COSA

**Guests**

Edmund Ortiz, Primetime News  
Chris Anderson, Express-News  
Mike Magee, TCEQ  
Bill O'Connel, Seguin Gazette  
Dr. David Sullivan, TCEQ

**Advisory Members**

Com. John Kight, Kendall Co.  
Susan Ghertner, HEB  
Kevin Fareri USAA  
Ken Zigrang for John Kelley, TxDOT

**Citizens to be Heard**

Monica Greenwell  
Wade Greenwell  
Mark Langford  
Charles Ruppert

**AACOG Staff**

Al Notzon, Exec. Dir.  
Dean Danos, Deputy Dir.  
Peter Bella  
Dorothy Birch  
Brenda Williams  
Steven Smeltzer  
John Quebe  
Isabel Chacon  
Berti Vaughan

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**I. Roll Call**

Chairman Millikin called the meeting to order and asked that the roll be called. Dean Danos called the roll and declared a quorum.

**II. Approval of Minutes**

Chairman Millikin asked the Committee for consideration of the March minutes. Mayor Adam Cork motioned for approval of the minutes as submitted. Gene Uptain seconded the motion. Chairman Millikin asked if there was any discussion. Chairman Millikin pointed to Section IV. Approval of Minutes where reference was made to Chairman Heath as opposed to Chairman Millikin. He asked that the change be made. Chairman Millikin called for the vote and the minutes were approved with that minor change.

### **III. Citizens to be Heard**

Chairman Millikin said there were four citizens signed up to speak. He called upon the first speaker Charles Ruppert, Mayor of Cibola to address the committee. Mayor Ruppert read the prepared statement (attached at the end of these minutes, verbatim).

Chairman Millikin asked the second person signed up to speak, Monica Greenwell to step up to the podium. Mrs. Greenwell relinquished her time to Wade Greenwell. Chairman Millikin told Mr. Greenwell that he had six minutes to address the committee. Wade Greenwell introduced himself and said he was from Guadalupe County. Mr. Greenwell said he loved Clean Air and that God loved clean air as well and that God had given air the ability for re-purification naturally. Mr. Greenwell expressed his frustration and unhappiness with the Clean Air Plan and called it a federal extortion plan. He pointed to the constant taxation forced on the citizens by government. He commented about taxation without representation and felt that elected officials were forgetful about who they represented. He felt that a plan to set up "checkers" for emission testing would be far less expensive than setting a fee for everyone because many people owned as many as four cars. He pointed to a friend in Kentucky who was voting against a man running for the senate who voted for emissions testing. He referenced the Bible and Mathew being a tax collector and how people hated him. He concluded by saying that in the Bible God said there would be no inheritance to heaven if you are an extortionist and that that should mean something.

Chairman Millikin thanked Mr. Greenwell for his comments and asked the final speaker Mark Langford to make his remarks. Mr. Langford passed around copies of a prepared statement. He read the prepared statement as submitted. (attached at the end of these minutes verbatim).

### **IV. Election of the Vice- Chairman of the Air Improvement Resources Executive Committee**

Chairman Millikin moved to the next item on the agenda which called for the election of the Vice Chairman of the Air Improvement Resources Executive Committee. He opened the floor for nominations. Mayor Adam Cork nominated Judge Nelson Wolff from Bexar County to serve as Vice-Chairman of the Committee. Councilman Ernest Hernandez seconded the motion. Mayor Heath suggested that the nominations cease and that the motion be approved by acclamation. Mayor Cork seconded the motion. Chairman Millikin called for the vote. The motion passed unanimously.

### **V. AIR Public Education Committee Report**

Dorothy Birch presented an air public education overview to the committee. On the Air Quality Health Alert System, she reported that no Air Quality Health Alerts had been issued as of yet this season. In promoting air quality through the media, she pointed to a scheduled meeting with WOAI television the following week to discuss the possibility of using "crawlers" to notify the public of air quality health alerts especially in particularly high or quickly flying weather being monitored throughout the region. Ms. Birch expressed interest in pursuing the use of announcements of a daily Air Quality Index and putting Air Quality Health Alerts in WOAI's telephone weather hotline. She explained she was seeking identical coverage from the new television station, News 9 San Antonio, a Time Warner Cable Station as they showed interest in announcing air quality health alerts and using the logo the same way the other stations are. Ms. Birch summarized the Air Quality List status as having 312 fax recipients and 311 e-mail recipients set to receive air quality health alert notifications. Ms. Birch informed the Committee on the following recent outreach events: a.)

Ozone Season Kick-Off: 67 pieces of lawn equipment were taken in from the CPS Mow Down Smog program, 30 plus cars went through voluntary free emissions testing and hundreds were in attendance throughout the 8 to 3 p.m. event, b.) participated in KISS Radio Car Show and distributed Drive Clean Across Texas Materials; c.) presented interviews on Community Affairs programs on Cox Radio during two separate programs, d.) made presentations to the East Central Community Fair, Senior Citizens Council of Bexar County, and Air Force Village Neighborhood Association Meeting, e.) participated in Earthday at Woodlawn Lake, and celebrated Earthday at Lockheed Martin.

On future outreach events, Ms. Birch reported on Hike and Bike month 2003. The events included Hike and Bike to Work Rally May 9<sup>th</sup>. Hike and Bike to Lunch also on May 9<sup>th</sup> at Milam Park, the Hike and Bike Fest on May 10<sup>th</sup>. Ms. Birch told the committee that more information on these events was available on the AACOG web-site. She would be also be attending other future upcoming events included the SAWS Watershed Festival, the Manufacturers Trade Show, and the Solar Fest event. She was looking at providing more follow-up presentations on the Neighborhood Association letter responses. Mayor Heath asked Ms. Birch for more information on the SAWS watershed festival. Ms. Birch explained that the event was geared towards elementary school children primarily educating school children learning about the different aspects of water pollution. She said she would be focusing on the fact that " what goes into the air frequently comes back to pollute surface waters" as well as integrating more air quality into the curriculum.

Ms. Birch reported on the Progress of the Comprehensive Communication Plan. She presented the goals of the plan which are to explain to target groups clearly and in understandable terms the threats to both health and economy that ozone pollution poses, the control and clean air strategies currently being evaluated, and the process to evaluate those different strategies. She explained that another goal was to respond to erroneous messages in an effective and timely manner and to encourage increased citizen participation in the Clean Air Plan process. She said that in order to achieve these goals she put out a base line survey to find out what people already know. The survey asked: How are they recognizing air quality health alerts? Are they hearing about the Clean Air Plan? Do they understand that air quality affects their health? She explained that the results of the survey showed that recognition of Air Quality Health Alerts range from a low of 42% to a high of 97% in breaking down the different age groups. Recognition of the Clean Air Plan ranged from a lower 11% to a high of 58% among the age groups. Understanding that Air Quality Affects Health ranged from 63% to 98%. Understanding that Air Quality affects tourism and business ranged from 33% to 77%. Ms. Birch said that the primary goal established was to increase by 10% all of those categories across all of the age groups. She also has a goal of doubling respondents in the next survey at the end of the ozone season for an even broader view from the MSA area on what they know and don't know about polluting air. She explained that during the summer she would be going forward to target age groups through communication efforts. Those efforts would include meetings with key individuals such as heads of school nurses associations and principals, presentations for civic and business groups some of which were already mentioned, paid media in print, television and radio, internet and outdoor billboards. Other efforts would be made through earned media and press releases pursuing air quality health alerts and pollution events, an air quality awards program later this summer, a best work places for commuters branding program, and various campaigns for school buses and school children to help them understand their link to air pollution. She pointed to the key messages that citizens seemed most amenable to were: 1) fill up your tank on the way home encouraging people not to fill up in the middle of the day especially on a air quality health alert day, 2) fill

up but not top off, and 3) to get there another way, by carpool, take the bus or walk. She remarked that the survey results on incentives indicated that reducing stress, reducing time and traffic and reducing health risks were most important and saving money was last. And lastly the preferred information sources were: doctors for information about air quality and health, schools, and the number one source of information is the newspaper .

Chairman Millikin asked Dorothy to talk to incentives. Ms. Birch said in the survey the question was asked "What appeals to you most as a benefit of improving our air quality" ? The responses were: a reduction in stress, a reduction in traffic and a reduction in health risk from air pollution in that order with money being last. Councilman Hernandez asked Ms. Birch if she had been doing outreach in the inner city in San Antonio. He said that he questioned some people in the westside of San Antonio and they didn't know anything about air quality. He asked Ms. Birch if she was making any effort to do outreach in that area of the city? Ms. Birch replied that work was being done in the Meadowcliff area. Councilwoman Conner offered to give her the names of some people in the inner city area to establish outreach efforts. Ms. Birch thanked her. Chairman Millikin asked Ms. Birch on the status of the flyers she was going to develop for the youngsters on air quality health alert days. Ms. Birch reported that the signs were almost ready for distribution and would be posted on school nurses doors. Judge Quinney asked for the date of the Solar Fest.

#### **VI. Citizens Comments: Fourth Public Meeting on the Clean Air Plan, April 12**

Chairman Millikin called upon Ms. Birch for a report on the public meeting and citizen comments made during the April 12th meeting held in the City of Seguin. Ms. Birch gave a brief overview. She reported that there were about twenty to twenty four people attending the meeting in Seguin. She said fifteen citizens signed up to speak, and eight citizens gave comments. She concluded her statement by informing the committee about the next meeting scheduled on May 20<sup>th</sup> . The public meeting was being hosted by Wilson County in Floresville starting at 7 p.m. at the Criminal Justice Center. Ms. Birch deferred to Mr. Bella to give the April 12<sup>th</sup> meeting report. Mr. Bella pointed to the multiple listing of a twenty two page transcript provided to the executive committee for their review. He informed everyone interested in obtaining a copy of the verbatim transcript that staff would make it available upon request. He also pointed to the response made in writing addressing Mayor Ruppert's question related to vehicle emissions testing.

Renee Green reported that HB 1365, which initially proposed the elimination of the Texas Ultra Low Sulfur Diesel Specification until 2006 and added a 3% charge on the diesel delivery. The 3% delivery charge was now rescinded by the Senate. She explained that instead, the TERP funding mechanism is expected to increase from 1% to 2% with a \$15 increase on the title application. She concluded that there is no longer a surcharge on the diesel delivery and the Texas Ultra Low Sulfur Diesel specification fuel is back in the bill. In the meantime she pointed to TXDOT as having procured a state contract to purchase fuel from Valero. Ms. Green also announced that Bexar County is in the process of taking delivery on that fuel for use in their vehicles within the next three weeks.

#### **VII. Hike and Bike Resolution from the SA/BC Metropolitan Planning Organization**

Scott Erickson with the Metropolitan Planning Organization presented a resolution for Hike and Bike Month for consideration by the Committee. Mr. Erickson expressed his appreciation for AACOG's role in sponsoring the event. He spoke on the various activities and events that had evolved from Hike and Bike Week to Hike and Bike Month and invited

the committee to attend. He asked for approval of a resolution from the committee supporting. Mayor Heath moved to approve the Resolution supporting Hike and Bike Week 2003. Mayor Cork seconded the motion. Chairman Millikin asked for any questions and comments. Councilman Hernandez commented that he would like for the event to consider getting other cities in the MSA involved. Chairman Millikin concurred. Chairman Millikin asked for a vote on accepting the resolution for Hike and Bike Week 2003. Mayor Heath pointed out a technical correction. The text on the resolution reflected Hike and Bike week instead of month. The committee voted on the motion with the correction. The motion passed. The Committee agreed to sign the resolution once the text was amended.

### **VIII. Discussion of Issues of Public Participation and the Early Action Compact**

Mr. Bella provided a hand out which addressed citizen questions on whether or not the Alamo Area Council of Governments is fulfilling their obligations for Public Participation under EPA Public involvement guidelines. The document reflected the EPA's proposed 2000 "Draft Public Involvement Policy" and the EPA's 1981 "Responsiveness Summary and Preamble on Public Participation Policy". Using these policy guidelines Mr. Bella concluded that AACOG was meeting the requirements of public participation. Chairman Millikin commented to Mr. Bella that not only were they meeting, they were exceeding their public meeting requirements. Mr. Bella replied yes especially in the monthly public meetings where the EAC calls for a public meeting once every six months. Mr. Bella asked Mike Magee representative from TCEQ, for his appraisal of the committee's public participation activities on behalf of TCEQ. Mike Magee commented that the EPA policy on public participation was a great policy but only applies to EPA. Mr. Magee pointed out that the policy does not apply to state and local governments and that having said that, he believed that the AACOG Air Committees were following both the letter and the spirit of the Early Action Compact. He congratulated the committee on in the way they conducted their business, the way they accepted public input during public meetings, the way they developed and make information available on the website, and the way they gathered information during public hearings and responded to all comments. Chairman Millikin thanked Mr. Magee for his comments and assured him that they would continue to conduct themselves accordingly. Mayor Cork commented on the meetings he conducted in New Braunfels where they had similar rules. They did not respond to questions that are raised from the podium from the audience not because they don't want to answer the questions but because 1) sometimes those questions go beyond what can legally be answered under the open meetings act notification and posting, and 2) citizens deserve not only an answer but an accurate and concise answer. Mayor Cork remarked that it was inappropriate for staff to answer off the cuff and that the citizens deserved accurate information. He pointed out that it was best to look at the questions, consider the questions, respond in writing in such a way that everyone on the Committee even those that were unable to attend can have the same answers available. It makes sure that everyone is on an even playing field and it makes sure that the citizens get more detailed and accurate information.

### **IX. Discussion of Technical Issues by TCEQ: Ozone Monitor Performance**

Upon request by Mayor Heath and approved by the committee, a verbatim transcript was provided on the comments made by Dr. David Sullivan from TCEQ. The comments can be found attached at the end of these minutes. A synopsis of those comments follows here.

Dr. Dave Sullivan is the manager for the Monitoring Data Management and Analyses Section in the Monitoring Operations Division for the Texas Commission on Environmental Quality (TCEQ). The division has the responsibility for placing monitors around the state,

receiving and quality assuring the data, and entering it into various databases, as well as displaying the data on the Internet. Staff at TCEQ's San Antonio regional office operates the local instruments and has a significant role in quality assurance. Dr. Sullivan described a team effort between the local people who are operating the instruments, TCEQ's automated data collection system, and the division staff, which inspects the data everyday to confirm proper instrument behavior.

Questions:

People want to know, given how advanced technology is, why is the ozone monitoring data only accurate plus or minus 15%?

1. It is a lot harder to measure ozone than it is to measure time. We are really talking about very small amounts of pollutants in the air. The air is almost all nitrogen and oxygen a little bit of argon, some carbon dioxide and then ozone. Troublesome ozone levels are measured in the hundred parts per billion range. We are talking about very small concentrations. Accurate measurements are very difficult to make.

2. The National Ambient Air Quality Standard for ozone is 0.08 parts per million. We could have chosen years ago to only say 'today's ozone reading is 0.08' or 'today's ozone reading is 0.09 parts per million.' But EPA has told the states to report the data out as parts per billion, so 0.08 parts per million is reported as 80 parts per billion. We have often been fooled I think by the fact that we report out the data to two significant figures; we say things like "84 parts per billion." We might have thought about saying "84.375 parts per billion" instead. But, when you take hourly observations over eight hours and then average (divide by eight) and then you start to tack on decimals, that would be disingenuous. We don't do that because we know that would be disingenuous. It's really not that accurate when you are monitoring ozone. So realize that we are working within an accuracy requirement for data reporting that is critical for the 8-hour ozone standard when the data falls between 0.08 parts per million and 0.09 parts per million. Even though we talk about 85 parts per billion, the law originally doesn't prescribe that kind of accuracy.

The argument could have been made that if we had very accurate instruments, 81 parts per billion would be in exceedance because 81 ppb is greater than .08 ppm. 82 ppb would be in exceedance, like 83, 84, and 84.9. But we haven't done that. Instead we're more or less giving the benefit of the doubt to a community by rounding up from 85 parts per billion. If your design value is 84 ppb your community is probably in non-attainment, considering the 0.08 ppm threshold. But EPA gives you the benefit of the doubt and rounds down. The point I am trying to make is that given this plus or minus 15 percent for a 95 percent confidence interval on hourly data, a design value is 85 is probably in non-attainment. We don't have to have a hourly data be anymore exact.

Now it turns out, for individual ozone observations that have plus or minus 15% error, when you average eight hours together that reduces the overall variance, or inaccuracy. When you order the samples and take the fourth highest, that affects the variance. When you add across three years and divide by three, that reduces the variance. In the simulations that I have done I estimate the design value, which is the number that we care about, is accurate to plus or minus 6 percent. So if you are at 85 ppb and you reduce that by 6 percent you might be just below .08 but you are very probably not. The bottom line is that, given the way the NAAQS is presented, the "plus or minus 15 percent" is really all you need to be confident that, if you have an 85 ppb monitored design value, then your true design value is greater than .08 which is the level of NAAQS.

3. I mentioned that measuring gaseous species using EPA prescribed methods is much more complicated and problematic than time measurements are. The plus or minus 15 percent is the limit of accuracy allowed and doesn't reflect our actual accuracy. So far this

year we believe we're doing network wide 99.7 percent confidence interval of plus or minus 8 percent accuracy. So that's our performance, but 15 percent for a 95 percent confidence interval is the limit we would accept before we send staff into the field to start a retest and repair mode.

Plus or minus 20 percent is the limit that EPA accepts. Because of the multiple objectives that we are trying to meet for data completeness as well as data quality, plus or minus 20 percent would be possible. But whenever we get to that limit we go into a more rigorous repair and re-test mode. Plus or minus 15% would be the limit at which we first start to investigate and plus or minus 20%, the failure rate.

4. The accuracy of any single measurement for ozone is a combination of all the inaccuracies associated with the entire testing equipment set. The ozone instrument itself is just one part of the testing equipment. The ozone generator used to calibrate and span check the instrument can have a problem, or plumbing leaks could be a problem.

These ozone monitors themselves have a precision of plus or minus one part per billion. That is, if you test the same air sample with the same ozone analyzer over and over again, the analyzer should give you the same result, the same ozone concentration, within plus or minus 1 part per billion.

But each instrument is housed in a trailer with plumbing that goes outside the trailer to draw in a sample of air to test. Now, that plumbing has different fixtures in it, fittings which allow you to test the monitor. (Such as, you can input a test air sample when calibrating or testing the instrument in a procedure called a "span check".) And because of the fact that you have these different pathways, you have a couple of different problems that can come up.

You can get dust particles in those lines and any dust particles in those lines will decrease the amount of ozone that comes in. The ozone can react on the surface of the dust particles, which can diminish the ozone concentration. It can also have a problem of leaks where air from within the trailer gets into that sample line. The air in the trailer has less ozone in it and so that will dilute the ozone so those two problems, the dirty sample line and the leak that allows cabin air to come in, both have the effect of decreasing ozone concentrations. That's the biggest problem we have. I would estimate that, when we have problems, 90 percent of the time the ozone concentration is lower than the true ambient conditions. And it is because of something in the plumbing of the instrument as opposed to the instrument itself.

So that's why a wider confidence interval is allowed, based on the fact that we have to deal with a whole system instead of just the ozone analyzer itself.

Could we do better? Certainly we could do better. But costs would rise. We are faced with the challenge of doing no more than we have to do within our budgets. Otherwise we would not be using taxpayer money efficiently.

Other points:

Dr. Sullivan remarked that the monitors operated by AACOG are tested and maintained the same way all other monitors across the U. S. However, the AACOG monitors were specifically set up to fall outside the requirements for monitors used for regulatory purposes. The data from the AACOG sites is not to be used in designating our area in non-attainment

Addressing the significance of a vehicle Inspection and Maintenance program:

Any of a number of individual control strategies is going to have a small effect and it's a challenge to assess that one small effect. But in aggregate we know that if there is a collection of controls in an area coupled with the significant controls that are going into the Houston area that air quality in South Texas is going to improve. Whether or not an improvement of 3 ppb will be detected in the instruments or not, as I said earlier, that's

within the accuracy of the instruments. A reduction of 3 ppb may be detectable at our instruments if it shows up in modeling results. But the message is that it is an accumulation of a contribution of emissions reductions that then shows up in our monitors.

Addressing equipment maintenance as it relates to instrument performance:

The ozone monitor is mounted inside the trailer out in the field. The ozone generator is used to generate different and known concentrations to check and calibrate TCEQ monitors. That second instrument is also in the TCEQ trailer. So there's plumbing that goes right from the ozone generator to the analyzer. If that line, that plumbing, fails, your readings can be wrong. You can check this by operating a second analyzer that uses the same air intake line. Then there's the co-located check, where you set up a wholly separate ozone analyzer and intake line and check the performance of the entire system by duplicating the setup that stays in the trailer. We can troubleshoot the system and isolate whether the problem is the plumbing, the ozone analyzer, or the calibrator (since we adjust the data based on the calibrator response).

Dr. Sullivan was asked, if a monitor operates where there's a higher particulate count, could that cause a greater inaccuracy just because there is more particulate matter in the air in that area? Couldn't we purge the plumbing lines with a reverse airflow right before the sample is taken?

Dr. Sullivan answered that there are definitely ways that we could do better which would incur higher costs. TCEQ is wrestling with a network that has 78 or 79 ozone monitors all across the state as well as literally hundreds of other instruments. He guessed the bureaucratic answer is that with the resources with which we have to work we prioritize the work that we do and we go after important and urgent issues. He advised we direct concerns to Mr. Leonard Spearman, the Deputy Director of the Office of Compliance and Enforcement and it would be at his level the decisions would be made about that type of prioritization.

Dr. Sullivan reiterated that the readings at CAMS 23 were on the order of 20 to 30 percent low at that site during the summer of 2001. He estimated that the fourth highest value from 2001 would have been higher than it otherwise was because of the depressed readings at that site. The problem was completely unrelated to a whole separate problem in 2002 that had to do with a slow response that the analyzer had to a new span check that we applied. Which we realized and when we resolved the extent of the problem, TCEQ stopped that check on October 1st last year.

But that did not change the previous data even though they were biased high. So the data from 2001 were biased low, the data from 2002 were biased high, and in both cases the data fell in general within plus or minus 20 percent based on our EPA-approved audits thus leading us and EPA to accept the data.

Chairman Millikin remarked on the high ozone readings at the Camp Bullis CAMS 58 monitor as well. So there's some verification of the fact that we do have legitimate problems.

Dr. Sullivan said that in San Antonio and Austin there's been a consistent design value that shows into the 80's. So it's not just that last year was the first year of non-compliance.

Peter Bella commented that, using data received from TCEQ, AACOG has been using a slide in presentations showing that out of the past twenty three years worth of three year averages or design values we have sixteen violations in that set.

Renee Green commented that three parts per billion reduction, shown as a reduction due to emissions testing in earlier AACOG analysis, is a significant, significant reduction from a design value of 88 parts per billion. There are very few control strategies that get that type of chunk in one control.

Chairman Millikin agreed with Ms. Green's comment. He observed that if a reduction of three parts per billion gets us out of non-attainment then that's certainly worthy of consideration.

Mayor Heath requested that a verbatim transcription of Dr. Sullivan's comments be made a part of the official record and included in the meeting minutes.

Al Notzon remarked that it might be feasible to talk to Leonard Spearman to request greater accuracy and follow up on other ideas for increasing accuracy. When we are trying to stay in attainment, he said, it is to our advantage to make sure that the instruments themselves are as accurate as they can be. By taking up a collection at the local level we might be able to augment a budget to actually prioritize this site.

Dr. Sullivan suggested that it might be the good policy to place a higher priority to monitors in any community having a design value is within plus or minus several parts per billion of 85 ppb, areas that are "right on the margin".

Mr. Notzon commented that other areas might have the same view as we do if they are "right on the bubble". They would want to make sure that the bubble is as accurate as they can be. He mentioned he'd like to see if that's the committee view.

Dr. Sullivan mentioned a "more radical" suggestion: co-locate another trailer at the monitoring site with a separate ozone analyzer. This is a very expensive solution but there is a certain number of co-located particulate matter sites for which TCEQ has two instruments at the same location in order to quality assure the entire network. TCEQ does not follow the same practice with regard to any of the gas species SO<sub>2</sub>, or CO or ozone, as an issue of money. A new ozone trailer is \$15,000 and an analyzer is \$30,000. So you run up a pretty high price.

Dr. Sullivan said that it could be possible to move a trailer carrying a collocation monitor during the worst period of the ozone season. For most of central Texas and East Texas it is the last two weeks in August and the first two weeks of September. If you co-located your sites then that would probably be the best way to check the overall accuracy of that site. It would be expensive.

Commissioner Kight commented that, despite the cost of extra monitoring verification, that cost is peanuts compared to what happens if we go into non-attainment. He asked are we talking about \$45,000 for monitoring or readings that throw us into non-attainment, which could cost hundreds of millions of dollars. He said, "I would think that we have to look at our budgets around here to help participate in something like this... Somehow or another we need to reach some kind of consensus on how we are going to go with this thing."

Dr. Sullivan said he has made exactly the same argument many times. In planning for a study in Houston our former executive director came into a meeting and told us that Reliant had come to him to say that if they – one company -- could only reduce their NO<sub>x</sub> 85

percent instead of 90 percent they would save \$100 million dollars. We're talking about huge, huge volumes of money among all industries compared to our total budget for monitoring operations which is about \$14 million a year to carry out air and water monitoring across the state.

Mr. Notzon asked, if we co-located a monitor and one that says we're in attainment and one that says we are not, which value would the state use? Dr. Sullivan said he'd have to get back to Mr. Notzon on that.

Mayor Cork stated that, if the committee bases their decisions on inaccurate readings and is seen to acknowledge to our constituents as elected officials that 15-20 percent error is acceptable, then how can we know we've really done anything positive? We should always work off the best available data possible that we are willing to pay for. There is nothing that we talked about here not one thing that is free. Its not free for Dr. Sullivan to be here, it's not free for anyone of us to be here in this room. Somebody is going to pay. And the people that pay are always the people at home. The question is how are they going to pay? That's the only question. And we need to be sure that we make our decisions based as good a science and as good information as we possibly can.

Renee Green mentioned that, irrespective of all the issues with CAMS 23 and the monitor bias, the region is still in non-attainment with CAMS 58 at Camp Bullis, where we've never had any issues or concerns regarding the accuracy of that particular monitor. So even if CAMS 23 was not an issue today, we could still be facing the same non-attainment designation because of the readings at CAMS 58 as well.

## **X. Clean Air Plan Update**

### **a. Photochemical Model update**

Steve Smeltzer presented a handout to everyone reflecting information which showed that the meteorological update provided dramatic improvement calculating in meteorological conditions in the region that occurred in 1999. The report concluded that the new set of MM5 results performing better than the original run. The run showed clear improvement in regional/local meteorology He reported that he was awaiting mobile 6 data from TCEQ on rural counties. Once received AACOG staff would make more runs.

### **b. Review of Deliverables under the Early Action Compact**

#### **i. Conceptual Model: due April 30, 2003**

Using the prepared hand out, Mr. Smeltzer gave the committee a brief summary on the conclusions contained in the conceptual model report which was a designated milestone in the EAC. Renee Green remarked that the Air Technical Committee had approved that the report be moved forward to the Air Executive Committee. Mayor Heath moved for approval of the report. The motion was seconded by Mayor Cork. Mayor Cork asked that in the future on items where they were expected to take action at meetings, they would be sent the documents through e-mail before the meeting. Chairman Millikin said his point was well taken and apologized for the crowded agenda. Chairman Millikin asked for the committee vote. The motion passed.

#### **ii. Mobile6 On-Road Update: due April 30, 2003**

Mr. Smeltzer explained that the Mobile6 On-Road Update was another milestone in the EAC and that they had updated the photochemical model with Mobile6 data for all the urban counties in Texas. Mr. Bella explained that although there was no report what was before them was a technical milestone with the goal to bring the item as completed to their

attention. They were still awaiting information from TCEQ on Mobile6 data for all the rural counties. Chairman Millikin called for the motion. Mayor Cork made the motion for consensus to proceed. Councilman Hernandez seconded the motion. The motion passed.

**iii. Submission of draft Clean Air Strategies: due June 16, 2003**

Renee Green reminded the committee to review the clean air strategies lists as they needed to meet a milestone to get a list of potential control strategies to the EPA by June 16. She pointed out that they had been given the strategies in April in order to review them at home and to give them the ability to ask any questions they might have with the idea to move forward with approval in May. Mr. Bella went over five draft lists provided for their review. Mr. Notzon pointed out to the Committee that the May approval did not approve the Clean Air Strategies but rather meets the milestone that says what strategies are being considered by the Committee. Mayor Heath asked if they would be receiving a report from the Technical Committee in the form of a recommendation as the actual document to be submitted as the Committee's report on June the 16<sup>th</sup>. Both Ms. Green and Mr. Bella replied yes. Mayor Heath requested that the document be literally or figuratively stapled together.

**iv. Biennial Progress Report: due June 30, 2003**

Mr. Bella presented a hand out which outlined the information which would be going into the Biennial Progress Report required by the EAC. The document would be the first progress report since the signing of the Clean Air Plan for the San Antonio area on December 9, 2002.

**c. Non-Attainment Designation Nomenclature**

This item was withdrawn.

**XI. Other Issues**

**a. Bylaws for the AIR Committee system.**

Discussion was held on the draft By-Laws document provided for their consideration. Mayor York moved to adopt the By-Laws as submitted. Mayor Heath seconded the motion. Chairman Millikin opened up the floor for discussion. Councilman Hernandez asked who constituted membership to the Air Advisory committee. Mr. Bella responded that the Executive Committee was responsible for the appointments. Councilman Hernandez remarked that there had been confusion by the City of Seguin as to their ability to appoint members to the Air Advisory Committee. Mr. Notzon replied that the current appointments would stand and that the adopted by-laws would be applied to future nominations. Mayor Cork asked about the change on page four which changed "is directly or particularly interested to " has a demonstrable conflict of interest." Mayor Cork remarked that the language of "is directly or particularly interested" is consistent with state law. He didn't know if demonstrable conflict of interest was. He moved to revert to "is directly or particularly interested". Chairman Millikin called for the vote in correcting the decorum portion of the by-laws. The motion passed. Chairman Millikin asked for a vote to approve the amended by-laws as submitted. Motion passed.

**XII. Adjournment**

With no further business to conduct the meeting was adjourned.

## Attachments: Citizens To Be Heard Comments

The following are comments offered by Mayor Charles Ruppert and Mark Langford during the Citizens To Be Heard section of this meeting. Citizens speaking during the "Citizens To Be Heard " agenda item may request their words to be transcribed verbatim. Also included in this attachment is a transcript of the comments by Dr. Dave Sullivan under Item Number IX, Discussion of Technical Issues by TCEQ: Ozone Monitor Performance.

### Submitted by Mayor Charles Ruppert:

Good morning Ladies and Gentlemen. Today I would like to address two issues. The first one concerns the Clean Air Plan public meetings. On AACOG's website the public meeting notices are listed under "In the News." Following the "Why:" heading, reason #2 begins with "To answer questions . . ." Following the "Who:" heading, it reads "AACOG Natural Resources and Air Quality Staff will be available to answer questions. . ."

At the April 12 public meeting in Seguin, during my three minutes, I asked simple yes or no questions hoping to receive answers. Some were under the impression that the public meeting was to hear comments only. While several of my questions were answered, two were not. The questions unanswered were: Based on modeling information, wouldn't vehicle emissions testing only reduce ozone levels by approximately 3 ppb? With roughly one million registered vehicles in the four county region, motorists would pay \$27 million dollars annually to reduce ozone levels by 3 ppb. Applying cost/benefit analysis, is vehicle emissions testing feasible? I then wrote these questions on a sheet of paper and handed it to Mr. Peter Bella. I am still waiting for answers to those questions.

My second issue concerns the Texas Legislative update as reported on page 18A of the San Antonio Express-News published on April 13. It said, "House approved HB1365, which would levy a tax of 3 cents a gallon on diesel fuel." So while this committee acts in good faith, trying to decided on control strategies that will improve air quality, our state legislature voted to allow the continued use of higher-emissions diesel fuel in exchange for a tax increase. At the New Braunfels public meeting I commented, "This is no longer a public health issue, it is a money issue. It is about new regulations to create new fees to generate ore money for state government. Follow the money. It's that simple." Lo and behold, our elected officials in Austin have proven my words to be true.

I sincerely hope that I am not the only person in this room who is angered by the blatant hypocrisy of our state government. Considering that \$8 of every \$27 vehicle emissions testing fee goes to the state, why would anyone on this committee WANT to reward more revenue to a legislative body that chose higher fuel taxes over lower emissions fuel?

I strongly urge eliminating vehicle emissions testing from the list of possible control strategies. I pray that you will finally have the courage to stand up to the bullying tactics of our state government. As citizens, we deserve better. As taxpayers, we deserve nothing less. Thank you.

### Submitted by Mark Langford:

#### COGS Stand On Clean Air Control Strategies . . .

Because we are nearing the end of the time when all parts of the Clean Air Compact need to be ratified, Citizens Organized for Good Science, felt this would e a good time to address this committee in person with suggestions and comments.

Before we get into our observations and comments on clean air control strategies, it is important to note that this committee and the technical advisory committee have done a less than favorable job of conducting public information meetings. Advertised on the ACOG website as a chance to "answer questions and gather

comments regarding the Early Action Compact", these meetings turned into nothing more than "public venting" and a way for AACOG to present only their version of the ozone issue. Citizens were not allowed to ask questions and were given only three minutes to express their concerns. If Forrest Mims and this organization had not presented additional data and perspectives at these meetings, the citizens of San Antonio would have never known about a many important issues relating to San Antonio's ozone production. Because of this committee's lack of citizen interest and negative comments about even having more public participation, COGS has filed a letter of protest with the EPA on the way these meetings were conducted.

It is also important to note that the enforcement laws of the EPA are still being discussed and reviewed. The Supreme Court only gave the EPA the right to reduce the eight hour average ozone standard to 90ppm, but did not give it the right to enforce those laws. The Court held paradoxically that the Clean Air Act allows EPA to revise the primary ozone standard, but stated that revised ozone standard cannot be enforced.

First of all, as we have stated publicly on many occasions, San Antonio does not have an air pollution problem. Last year's high readings were a combination of unusual meteorological conditions that brought in polluted air from other parts of the country and faulty ozone monitor readings at Cam 23 and possibly 58. Based on a study that this group performed, average daily local contributions (taking two monitors from the northside and two from the southside) to ozone are less than 10ppb.. Higher contribution figures that your committee may be seeing from TCEQ and AACOG, are based on contrasting one southside monitor with a faulty northside monitor that may have been inflating ozone values as high as 30% on certain days. TCEQ admits that the readings were at least 15% too high from 2002 because of a new way that they "processed the data" but refuses to correct the information. Since then, they have reverted back to the original way of processing CAM 23 data. Unfortunately, the 104ppb that was sent to the EPA for the fourth highest reading from 2002 will stick unless they change their mind. As a side note, that 104ppb was higher than any monitor in Houston for last year.

As you can see by studying the ozone data from prior years, high ozone days are random, meteorological events in our area. Unlike California, where the geography plays a major role in keeping pollution from exiting their region, 98% of the time, San Antonio's clean winds from the Gulf of Mexico, keep our region virtually "pollution free".

Of the ozone that is produced in San Antonio, how is the best way to deal with lowering our output? Here are our observations and recommendations:

1. Based on a price tag of 30-50 million dollars per year, we do not indorse emissions testing for vehicles owned by citizens in the four counties that comprises the Clean Air Compact area. Since more than 80% of the cars tested will pass and 90% of cars younger than 1996 will pass, it is not right to force motorists to pay an additional \$29 for a test most will pass. It is also not logical to force motorists to subject themselves to the additional time it takes to take a test that will reduce ozone levels by 3% if everything goes correctly. Other cities have demonstrated that emissions testing does very little to clean up air pollution and leaves the door open for bribes and fraud. A better plan is to simply ticket "smoking" cars and use the money from those vehicles to install one emissions testing station in San Antonio.
2. We support all voluntary emissions reductions of the Clean Air Compact, however many of the suggestions are unrealistic for businesses and landscape companies. Since Ozone Action day forecasts are not flawless, it would be an economic hardship for businesses to stop their jobs, when forecasts have been known to be wrong in the past.
3. We support a "burn ban" for local and regional areas during Ozone Action Days. Based on work conducted by Forrest Mims and various scientific papers that we have seen, bio mass burning may be one of the largest man made contributors to high levels of ozone world wide.
4. Knowing that bio mass burning is a major contributor, COGS endorses CPS in their target reduction of 50% less NOx by 2005. We question, however, if CPS can achieve this reduction and build a third coal fire plant in the same area (upwind of San Antonio during ozone season) as the other plants are located. If the 50% reduction does not include a new coal fire plant, then San Antonio should demand that CPS provide them with new emission figures based on that plant. This committee should ask CPS to calculate how much more the average electric user would pay if CPS builds a natural gas plant instead. Citizens might be willing to pay more for cleaner emissions when given a choice.
5. We support any tax or local monetary incentives for businesses to switch to cleaner burning vehicles. We support VIA switching to propane or other alternative fuel sources as soon as possible. NISD switched to propane over ten years ago for their bus fleet.
6. We support green belts and the planting of more trees, although trees may contribute to

VOC's, which can contribute to ozone production. We support programs that give citizens incentives for switching to electric mowers and other landscaping tools.

7. We do not support lowering speed limits. The biggest problem for automobile exhaust is vehicles going nowhere in traffic. We need to keep the cars moving so that idle time is reduced. Progressively times traffic signals are also a good way to keep traffic flowing. If it is economically feasible and does not eliminate current lanes, we endorse HOV lanes. We do not endorse special bus lanes that will reduce the amount of lanes that cars have to operate on. This only reduces traffic flow and will lead to more idle time.
8. We do not support forcing TXDOT to change their work schedules when there are ozone action days. Because of the additional time and money that will be added to completing important highway improvements, the amount of ozone reduction versus the economics of such restrictions does not make it a credible control strategy.
9. Any fleet strategies should be discussed with knowledgeable industry leaders to determine which ideas will work best. It would be wrong to force many of these restrictions on businesses without knowing what kind of an economic impact they have.

## **Verbatim Transcript, Dr. David Sullivan**

**Air Improvement Resources  
Executive Committee Meeting  
4/23/2003  
Alamo Area Council of Governments**

Item Number IX.

Discussion of Technical Issues by TCEQ: Ozone Monitor Performance

Chairman Millikin: Again because we have received some comments from the public about perhaps misconceptions or difficulty in understanding the techniques behind our monitoring systems. We have asked TCEQ folks to be with us. Peter.

Peter Bella: If I may introduce Dr. David Sullivan of the Texas Commission on Environmental Quality.

Chairman Millikin: This is your time Dr. Sullivan. Peter we can catch anytime.

Dr. Sullivan: My real name is Dave. I am the section manager for the Monitoring Data Management and Analyses Section in the Monitoring Operations Division so our division has the responsibility for siting monitors around the state, receiving the data, quality assuring the data, and entering it into various data bases. The local region the San Antonio region in this case, region 13 has the responsibility for actually operating the instruments. Plus a significant role in quality assurance so its really a team effort between the local people who are operating the instruments and our automated system which collects the data and routes it back to the home office. Then our staff eyeballs the data everyday looking at graphs on screens to confirm we are not seeing unusual behavior in the instruments. So its both human beings here instrumentation here instrumentation in Austin and human beings in Austin which are all playing a role in quality assurance. I don't have a power point presentation to give you all. I started to think about doing that but as far as issues of data quality go we have volumes and volumes of technical information in part most of which I guess come from federal requirements and are published in the federal register. And then our own research over the years from the instruments that we use and of course the manufacturers information so I'd like to give you a brief overview and the answers specifically to questions that Peter e-mailed me. And then offer to have Peter come and meet with us back in Austin when we can go into greater detail or I can simply e-mail you some of the technical documentation so you can look over. So you can give your committees a briefing at whatever level you think is appropriate. The questions that I was e-mailed are as follows:

Peter said, People want to know given how advanced technology is why is the ozone monitoring data only accurate plus or minus 15%? For example I can get the time of day accurate to within 0.3 seconds at <http://time.gov>. Part of it the obvious response is that it is a lot harder to measure ozone than it is to measure time. We are really talking about infinite, infinite, very small amounts of pollutants in the air. The air is almost all nitrogen and oxygen a little bit of argon, some carbon dioxide and then ozone that is out there that is problematic ozone in the hundred part per billion range that is a tenth of a part per million. We

are talking about very little confirmation. So in order to measure that accurately it is very difficult. We have often been fooled I think by the fact that we report out the data to two significant figures we say things like 84 parts per billion. We could have chosen to say 84.375 parts per billion. Because when you take hourly observations over eight hours and then average divide by eight when you start to tack on fractions we don't do that because we know that would be disingenuous. It's really not that accurate when you are monitoring ozone. That NAAQS standard the National Ambient Air Quality Standard for ozone is expressed as in terms of parts per hundred million it's .08 parts per million, that resolution is parts per hundred million. So, we could have chosen years ago to only say today's ozone reading is .08 or today's ozone reading is .09 but instead because we have the data in other decimal places, EPA has told the states to report it out to the part per billion resolution. Even though the standard is not stated in that rigor. So in regards in my answers I plan to e-mail I said the analogy of time measurement in ozone measurements is a 41 milligrams? measuring gaseous species using EPA prescribed methods are much more complicated and problematic. The plus or minus 15% is the limit of accuracy and doesn't reflect our actual accuracy. So far this year we believe we're doing network wide 99.7% confidence interval. That's a three sigma confidence interval plus or minus 8%. So that's our performance, but fifteen percent is the limit we would accept before we go into a re-test and repair mode. Plus or minus 20% is the limit that EPA accepts and so because our data and because of the multiple objectives that we are trying to meet in terms of data completeness as well as data quality, 20 plus or minus 20 percent would be possible. But whenever we get to that limit we go into a more rigorous repair and re-test mode. But plus or minus 15% would be the limit at which we first start to investigate and plus or minus 20% the failure rate. The accuracy of any single measurement, for ozone is a combination of all the inaccuracies associated with the measurement. Now this gets to, I think fourth question you had asked us about. "Why does the instrument say precision plus or minus 1 ppb and we are talking about ten times that"? The instrument by itself is just a box. That ozone analyzer if you repeat the same sample over and over again should give you the same result within plus or minus 1ppb. But each instrument is housed in a trailer with plumbing that goes to the outside air to draw in a sample, that plumbing has in it different fixtures which allow you to input a test atmosphere when you are calibrating or testing the instrument with a span check. And because of the fact that you have these different pathways, you have a couple of different problems that can come up. You can get dust particles in those lines and any dust particles in those lines will decrease the amount of ozone that comes in cause ozone will react on the surface of the dust particles and be diminished. It can also have a problem of leaks where air from within the trailer gets into that sample line. The air in the trailer has less ozone in it and so that will dilute the ozone so those two problems the dirty sample line and the leak that allows cabin air to come in both have the effect of decreasing ozone concentrations. By in large that is the biggest problem with which we deal. I would estimate that 90 percent of the time that we have problems it is that the ozone concentration is low, lower than the true ambient conditions. And it is because of something in the plumbing of the instrument as opposed to the instrument itself. So that's where the wider confidence interval comes in, based on the fact that we have to deal with a whole system instead of just the ozone analyzer itself. Could we do better? Certainly we could do better but costs would rise and again we are faced with the challenge of doing no more than we have to do. Because otherwise we would not be using taxpayer money efficiently. Now going back to that question of what is the National Ambient Air Quality Standard, because it is set at .08 that is the standard. If you are at .08 for your design value you're considered to be in attainment. If you are at .09 you are considered to be in non-attainment. The convention that has been adopted is that 85 parts per billion rounds up to .09 parts per million. The argument could have been made that if we had very accurate instruments, 81 parts per billion would be in exceedance because 81 is greater than .08. 82 would be in exceedance 83, 84, 84.9. But we haven't done that instead we're relying on we're more or less giving you the benefit of the doubt to a community by rounding up. But if your design value is 84 your community is probably in non-attainment but EPA gives you the benefit of the doubt and rounds down. The point I am trying to make is that given this plus or minus 15% if you have plus or minus 15% your design value is 85 you are probably in non-attainment. We don't have to have a design value be anymore exact. Now it turns out that individual ozone observations have that plus or minus 15% but when you average eight hours together that reduces the overall variance. When you rank order the samples and take the fourth highest that affects the variance. When you add across three years and divide by three that reduces the variance. In the simulations that I have done I estimate that the observations underlying the design values are accurate to plus or minus 15%. The design value, which is the number that we care about, is accurate to plus or minus 6%. So if you are 85 ppb and you reduce that by 6% you might be below .08 but you are probably not. Again that is a three-sigma threshold. You went to a two-sigma threshold then you'd definitely be above and violate, so the bottom line that given the level of the way the NAAQS is presented the plus or minus 15% is really all you need to be confident that if you have an 85 ppb design value your true design value is greater than .08 which is the level of NAAQS. I answered the question about precision and I think the answers were given the technology why don't we do better why does EPA allow such gross inaccuracies I think I've answered that. What are the tolerances, again I mentioned the plus or minus 15% based on going in where they test calibrations which we do daily, monthly calibration check or an annual co-location

check where we have to bring in another instrument and set it down. We use plus or minus 15% before we worry about the data and plus or minus 20% before we reject the data. And then the instrument has 1 plus minus one part per billion and again that's the measure of precision. Repeat the same sample over and over again does not address accuracy which may be tied to the overall system or the drifting system. Those are the questions that you sent me I hope I've confused you enough.

Chairman Millikin: Dr. Dave, I see how you got your Ph.D.

Dr. Sullivan: The way I got my Ph.d though was teaching under graduates elementary statistics, introductory statistics and I got horrendous reviews on my performance doing that. So, the trouble is that this is a complicated issue and it would be better I think if I showed \_\_\_\_ (turned tape) and then he can use those sources of information to address your audiences.

Peter: If I may, I wanted to ask Dr. Sullivan to speak before you all to kind of give you a chance to hear what the explanations are and also give you a chance to ask him questions. What you just heard may have been something that doesn't register quite the same way that it would with myself or someone else who has a technical background. However, if the questions remain with you about the accuracy of the methodology, do you have questions like that that you'd like to ask him or me now or in the future? If you have those I will be here or if you have other questions ongoing I will be and I will work with Dr. Sullivan and I will make those as readily available as I can.

Chairman Millikin: The system that we are using here is the same system that is being used in Houston and Dallas? The standards are the same that are being used in those areas? Is that correct?

Dr. Sullivan: Well, there are actually two monitoring networks that are active in this area. CPS runs a site, we run 2 ozone sites and then the COG runs four or five sites.

Chairman Millikin: But those monitors of which are already being gauged by TCEQ and EPA are the standard is the same across the state?

Dr. Sullivan: Yes

Peter Bella: And across the country with the EPA guidelines.

Dr. Sullivan: Yes, that's the point. We use a federal equivalent method which is detailed as far as what the principal is behind the instrument, who manufactures the instrument, how the instrument is maintained. Then we file a plan every year with EPA that says these will be calibration and span checks, frequency, and how we will do them. And EPA receives the same quality assurance project plans from all the other monitoring entities in the country. The CPS sites are done under our QAPP. The Cogs sites are slightly different. They are specifically set up to fall outside the requirements in the federal register. We always cite Chapter 40 Part 58. Because that the collection of federal requirements. So I have not seen the QAPP for those sites but we observe the data and the data is very high quality when everything is working right. Recently, there have been some problems I don't want to go into the problem but last year's data appeared to be consistent with what the state's monitors were saying.

Chairman Millikin: Again I want to reaffirm for everybody who didn't know it before that we are gauged the same way that everybody else is across the U. S. and we are the last Metropolitan Statistical Area yet to not meet federal air quality standards so I think that is critical that we understand that. That we all understand that.

Dr. Sullivan: I guess another point is that Austin is in the same situation that you all are in. Northeast Texas, Tyler, Longview, Marshall area is in the same situation. The number of counties outside of the Dallas/Ft. Worth area are in the same situation and started monitoring three years ago. So, you all are not alone in terms of being new areas that have a feel for this issue.

Chairman Millikin: I understand. Yes, Judge Quinney.

Judge Quinney: I don't know if you answered this or you can answer this but the mayor spoke earlier about the insignificance of the inspection and maintenance program of the numbers involved in that. I know this is an ongoing study to quantify what that has to do with it. Could you talk to that to some degree?

Dr. Sullivan: Well, I'll tell you that a real challenge in addressing any part of emissions reduction plan

whether its reductions at a power plant or reductions from Mobile sources through I&M or reductions from gas stations by having stage 2 and stage 1 vapor recovery. Anyone of those is going to have a small effect and it's a challenge to assess that one small effect. But in aggregate we know that if there is a collection of controls in an area coupled with the significant controls that are going into the Houston area that air quality in South Texas is going to improve. It's whether or not an improvement of 3 ppb will be detected in the instruments or not as I said earlier that's within the accuracy of the instruments. If we do 3 ppb from that and 3 ppb from power plant reductions and 3 ppb from gasoline stations, 3 ppb because many citizens bike, telecommute work four day work weeks etc then that would be detectable. I would guarantee you that that would be detectable at our instruments and that shows up in modeling results but the message is that it is an accumulation of a contribution of emissions reductions that then shows up in our monitors.

Mayor Cork: We could easily title this, "When Science Meets The Real World." What you are talking about... I understand what you are talking about in accuracy and the difference between whether the equipment is accurate or the process is accurate. And when you say 15% that scares people into thinking that every number we look at is plus or minus 15%. And they say OK now if I was plus or minus 15% on my speed am I going to get a speeding ticket? If I was plus or minus 15% try to put it into real people terms. But the process of the testing we are using does have a lot of variable in it. Some of the stuff we can affect some of the stuff we can't. You mentioned particulate matter in the testing so maybe we've got dust particles in the plumbing if you will that brings the air sample in. I never looked at the testing devices are they closed air systems with test samples being brought in? Or are they capped in some way? How is that entered?

Dr. Sullivan: You have the box inside wrapped mounted inside the trailer. You have the ozone generator which is used to generate different and known concentrations to go in to use span checks and calibrations. So that plumbing goes right from the ozone generator to the analyzer. Then you have the check that you call the co-located check where the sample line goes up to the roof of the trailer there's a way to attach another instrument another set of plumbing at that point so its drawing in outside air through the same candy cane on the outside that the regular analyzer is drawing in the air. To set up a wholly separate ozone analyzer and check the plumbing and check the combination of I'm sorry check the system because it goes through a different sample line to get to the outside to see whether there's a sample line. So you can isolate the sample line problem that the analyzer is working correctly because you are running the calibrator into the ozone analyzer without going through the sample line. So that's one check. With the co-location check which we only do once a year or we do to diagnose problems that we are seeing within the year, we hook that up until its getting at the very top of the trailer drawing in outside air and not going through that plumbing. So that we can trouble shoot the system and isolate whether the problem is the plumbing or the ozone analyzer.

Mayor Cork: I guess what I am asking is it seems like if we have an issue I'm thinking particularly the monitor we have over near Marshall there's a higher particulate count in that area of town just because it is facing industry that isn't necessarily ozone generating but is particulate matter generating. Then that could cause a greater inaccuracy of that particular device just by the nature of there being more particulate matter in the air in that area. So, we have a lot of criticism of that monitor and if we don't do something to identify really what that monitor's problem is or is it really a problem maybe ozone is higher there. In my simple mind it seems like that wouldn't be a terribly difficult thing to do whether we purge the plumbing lines with a reverse air flow or something right before the sample is taken. In medical process what you would do is you would flush the line on the inside so you wouldn't just take a sample of air in. You'd take a big volume of air in and pass right through stop and then you draw the air sample you actually want to test. That is how you accomplish getting rid of the stuff in the line that has accumulated between the last test. Is there a way to do that with the equipment we're using?

Dr. Sullivan: Well, your honor, there are definitely ways that we could do better. As I mentioned we could better. It would incur higher costs. When we look at the performance of that site we call it CAMS 23 and we see problems with it we know that Camp Bullis site CAMS 58 is operating correctly then we've got other data that we can rely on. So the way we see it the urgency of going out and correcting that problem whereas it is important it is not urgent. Because we are wrestling with a network that has 78 or 79 ozone monitors all across the state as well as literally hundreds of other instruments. And ozone is just one of the problems we are dealing with. So, I guess the bureaucratic answer that I have to give you is that with the resources with which we have to work we prioritize the work that we do and we go after important and urgent issues. If the community only monitor and it's not working that would have a higher priority than going to fix CAMS 23 when we know that several other sites in the area. Eventually though we do get to it. Eventually, we have a record that a repair was done on that instrument I think it was in August 2001 where the analyzer was found to be a problem, the analyzer was replaced. And ozone readings which had been depressed up until that

point suddenly jumped up to be in agreement with CAMS 58. Could we have done that sooner? Yes but it would have required a reordering of our priorities and I would advise you to direct your concerns about that to Mr. Leonard Spearman who is the classic bureaucratic bumping it up to somebody else. He's my bosses' boss. Leonard Spearman is the Deputy Director of the Office of Compliance and Enforcement and it would be at his level the decisions would be made about that type of prioritization.

Chairman Millikin: Dave your fine tuning of that system of that system of CAMS 23 at Marshall High School, when you did do that in August of 2001 to correct the ozone readings, in fact we were reading low? Is that right?

Dr. Sullivan: That was the case where we think that the readings were on the order of 20 to 30 percent low at that site. Our estimate is that the fourth highest value from 2001 would have been higher than it otherwise was because of the depressed readings at that site. The problem was completely unrelated to a whole separate problem in 2002 that we believe had to do with a slow response that the analyzer had to a new span check that we applied. Which we realized and when we resolved the extent of the problem we stopped October 1st last year.

But that did not prevent the previous state of meeting biased high. So we know that the data from 2001 was bias slow, the data from 2002 was biased high, in both cases the data fell in general within plus or minus 20% keeping the data. It was just random chance that it was low one year and high the next year. But for some reason that monitor had the worst performance probably...it was among the worst performing of our seventy seven ozone monitors that we deal with. Again we are also dealing with carbon monoxide problems in El Paso and auto gas problems in Houston and in Dallas. There are hundreds of instruments that we are dealing with so I can't really characterize that among that whole of what is problematic.

Chairman Millikin: Unfortunately we had also high ozone readings at the Camp Bullis CAMS 58 Monitor as well. So there's some verification of the fact that we do have legitimate problems.

Dr. Sullivan: And you know Commissioner another point that hasn't really been touched on is the time series over the last decade. In San Antonio, in Austin there's been a consistent design value in the mid eighties either whichever has been worst at CAMS 58 or CAMS 23 since the mid nineties. The same thing in Austin with our sites. So it's not just that last year was the first year that you all were non-compliant. The standard wasn't really a plan to implement the standard if you go back and look up the historical data I can e-mail you a time series or graph that show/illustrates this. The problem has been present in San Antonio nine out of the last fifteen years. And consistently I think five out of the last six years.

Chairman Millikin: Most of us understood that that I just wanted to make folks behind you understand

Chairman Milliken: Peter, any comments?

Peter Bella: I just wanted to say that that is a slide that I have shown previously and it is part of our continuing Conceptual Model and others that out of the past twenty three years worth of three year averages or design values we have sixteen violations in that set. So that is a slide that we do acknowledge from Bryan, one of his co-workers at TCEQ.

Renee Green: I'd like to mention to make sure that again one of the things we have talked about that may have not sunk in but it will with Dr. Sullivan's presentation. Right now based on the 1995 air quality model our design value is at 88 parts per billion. Now that may change once the 99 model is finalized. But I've heard significantly in a number of comments and we really haven't addressed it and again this is Renee Green as technical representative on the Air Improvement Resource Committee. Three parts per billion reduction, if that is the decision of the local elected officials to implement emissions testing. Three parts per billion is a significant, significant reduction from a design value of 88 parts per billion. There are very few control strategies that get that type of chunk in one control. Now that doesn't mean to say that that's what this committee endorses or that's what this committee is focusing on but people when they look at the design value is to get from 88 down to 84 essentially, in a rounding issue where you can achieve most of it in one control strategy that is not an insignificant control strategy and it's a little frustrating when I hear well it only reduces 3 parts per billion in ozone. There aren't any other control strategies that I am aware of that reduce that much by themselves. So I welcome the opportunity judge that you brought that up so that we can address that and make sure that everyone is aware that really is a very significant reduction.

Chairman Millikin: I agree with your comment. I think the observation as to whether we are in attainment or non-attainment and if three parts per billion gets us out of non-attainment then that's certainly worthy of consideration. Mayor Heath.

Mayor Heath: Mr. Chairman I would hope that the published remarks or the printed remarks by Dr. Sullivan would be made available if they hadn't been already to any member of the public as is of course the case under open records of any of our documents. But his written remarks in particular. And I would also like to suggest that if this committee approves that our minutes once they are approved in our next meeting be prepared for distribution once they are a final document of this committee approved by. And that they include the verbatim question from Mayor Cork and the verbatim answer to that question. I know that we try to keep our minutes lengthy enough to reflect accurately what we have done and this would make them much lengthier but I think it's important that they be a part of the official record.

Chairman Millikin: I certainly agree. I think everybody at this table believes in those folks out

Mayor Heath: We have a number of folks who work with us who have stated that their primary concern is good science and I think we are encountering it. I think from my lay person's perspective we are also encountering what many of us had believed all along that scientists don't always agree. And so I think we need to make available all the scientific viewpoints.

Al Notzon: Mr. Chairman, I appreciate Dave coming down here. I know that TCEQ is on travel restrictions right now and the first easy answer you could have given us is we can't travel right now cause we don't have the money and I'm aware of the setbacks you all have faced. I do appreciate the fact that you made the effort to get down here to let us know this. I guess the only question I have obviously when you came down and made the repair the last time. It didn't help us it harmed us. If I am hearing you right. But trying to follow up on Mayor Cork's question, is if we talk to your boss's boss and we knew approximately the cost it would take to maybe to follow up on Mayor Cork's idea on how to make that most accurate, clearly when we are trying to stay in attainment if we can we want to make sure that the instruments themselves are as accurate as they can be. And I have a sinking suspicion if we have to take up a collection at the local level to try to get that done we would be happy to see if we might be able to augment a budget to actually prioritize this site. I guess that's the question if it's a money issue what's the amount of the money issue and is this something we might be willing to help you on.

Dr. Sullivan: If I can offer a friendly suggestion to that. It might be the good policy would be that higher priority be given to any community who's design value is within plus or minus 85 ppb or max standard. Because as I said earlier, Austin's design value is 85, the Longview design value is 88, if you go outside the Dallas/Ft. Worth area some of those counties surrounding there have numbers of 86, some have numbers of 83 they are right on the margin. So perhaps the policy should be that greater attention be provided to many counties, monitors that are within some values.

Mr. Notzon: I have a suspicion they might have the same view we do if you are right on the bubble. They'll make sure that the bubble is as accurate as they can be. That maybe the question we would ask back to you and your bosses is this something that we and I don't mind getting with my other counter parts in the rest of the state following your advise saying maybe we ought to be addressing several of us in trying to get it done. Maybe you didn't but I'd like to see if that's the committee view that we ought to be moving in that direction as a way to just make or take out any doubt whatsoever that we've done everything we can to make sure that if we're in that. . . right now we're in the EAC that's the good part about it. We've rather also have an accurate reading. As accurate as we can make it and I think the medical approach in saying is there a way to design that plumbing question out of the question might be helpful.

Dr. Sullivan: Probably a more radical suggestion would be to co-locate another trailer there with a separate ozone analyzer. This sounds like . . . this would be the very expensive solution but for instance if you all are planning to put another site the principal of co-locating monitors say ten percent of the monitors in the network for instance with their fine particular matter monitoring network. I forget what the percentage that we decided on was but there is a certain number of co-located sites that we have two samples at the same location in order to quality assure the entire network. We do not follow the same practice with regard to any of the gas species SO<sub>2</sub>, or CO or ozone. And it's a mystery to me why we don't. Because it's a principal of sampling in scientific investigations that you have something like that. Why we don't in comes back to the issue of money. A new ozone trailer is \$15,000 and an analyzer is \$30,000. And so you probably know what the totals are but you run up a pretty high price.

Peter Bella: That sounded like 45,000 right there.

Dr. Sullivan: But if it were at all possible to say move a sight within some time period like three months during the summer or the month of August. You all's worst period for most of central Texas and East Texas is the last two weeks in August and the first two weeks of September. If you wanted to bet money on when

you would have an exceedance take September first. If you looked at that period and co-located a site then that would probably be the best way to check the overall accuracy of that site. But again, it would be expensive. But perhaps you could find somebody... CPS or somebody who could do that for you all.

Chairman Millikin: I know you have mentioned the concern of cost several times this morning given the fact the state's financial difficulties that's obviously going to have an impact at TCEQ or at least I would assume this would. Hopefully not in your office since you already appear to be pretty well short handed. Anybody else have any comments please for Dr. Sullivan?

Commissioner Kight: I've been listening to all this. First of all if you're trying to pick out one part per million that's like trying to pick out one person in almost the world. We're talking about extremely small quantities and if the air is like three parts per billion that throws it in or out. And then I hear you say, I know this is bureaucratic but I hear you say well, it costs too much to get the correct monitors there or people there to correct the problem but that is peanuts compared to what happens if we go into non attainment and this whole area has a financial impact. So are we talking about \$45,000 that throws us into non attainment, we are talking about hundreds of millions of dollars. Yet you are talking about a few thousand dollars. I would think that we have to look at our budgets around here to help participate in something like this. I think we are loosing our perspective here. In one case we are saying it costs too much to make sure we are within 3 ppb and we don't talk about what happens if we fail... Somehow or another we need to reach some kind of consensus on how we are going to go with this thing.

Dr. Sullivan: Sir I've made exactly the same argument many times. When we ask to put monitors in areas and then based dollars in the tens of thousands of dollars compared to the hundreds of millions of dollars that industries would have to make or that consumers would have to make. In Houston our former executive director came into a meeting and told us that Reliant had come to him if they could only reduce their NOX 85% instead of 90% they would save \$100,000 million dollars. We're talking about huge, huge volumes of money compared to what seems like peanuts for now our total budget for monitoring operations is \$14,000,000 a year to bring in air and water monitors across the state and that is so small compared to the cost as you have pointed out.

Mr. Notzon: Millikin: Dave if we co-located... Do we now have a double risk? In other words is this countered as two separate monitors or is the co-location a check and balance. What I don't want to do is double our risk. One that says we're in attainment and one that says we are not.

Dr. Sullivan: Sir, that is a decision you would have to make. In the technical community our top priority is to get the right number.

Mr. Notzon: Let's say if the current one you now maintain says its 83 and the one we put in to test it is 86 which one gets counted?

Dr. Sullivan: I'd have to get back to you on that. I don't know the answer to that. There is an answer to that question. Because there is a treatment as I mentioned with the FRM (Federal Reference Monitor) data... So whether that's used in an attainment or non-attainment call I don't know the answer off the top of my head. But I'll find out for you.

Mr. Notzon: I just want to make sure that we don't want in trying to solve a problem put ourselves in greater jeopardy of getting into non-attainment.

Peter: If I may just focus back to where we began. This whole Early Action Compact Clean Air Plan was predicated on a non-attainment finding. We began this work long before we had the values to show us in non-attainment. What remains is the question of public health. We see these values, we see this historical trend of sixteen set of years over the past twenty-three where we've been in non-attainment. If the question we're a little high sometimes we're a little low talking about time measurements vs. ozone measurements. If your watch is wrong by a minute you don't throw the watch out. The question is not in my mind... exactly, exactly, exactly, now how much money do we need to spend to get the absolute finest readings, again we only have four monitors in four regions of the City. We don't have people right there at those monitor locations breathing that same air. No this is... we have to sample the entire city with a few locations we can't spend the kind of money or put out the instruments to get everything monitored everywhere. We physically can't do it. It is a health issue we've seen in the past that we have this challenge and we need to confront it.

Mayor Cork: I don't want anyone to misunderstand my comments or my questions or to think that I don't think there is an air quality issue in the area or that we don't need to do something to make sure the air is as

clean as it can be. But I think that anything we do if we base at an inaccurate starting point and we acknowledge to our constituents as elected officials oh somewhere between 15-20 percent error is ok with me. Well then how do you know if you've really done anything positive? Because when the next test comes in and it shows that the numbers are better are they really or are we in that 15 to 20% swing. My point or my position is that we should always work off the best available data possible that we are willing to pay for. There is nothing that we talked about here not one thing that is free. Its not free for Dr. Sullivan to be here, it's not free for anyone of us to be here in this room. Somebody is going to pay. And the people that pay is always the people at home. The question is how are they going to pay? That's the only question. And we need sure that we make our decisions based as good a science and as good information as we possibly can.

Renee Green: One final thing. Irrespective of all the issues with CAMS 23 and the monitor bias. We are still in non-attainment with CAMS 58 which is at Camp Bullis where we've never had any issues or concerns regarding the accuracy of that particular monitor. So even if CAMS 23 was not an issue today, we could still be facing the same non-attainment designation because of the readings at CAMS 58 as well.

Chairman Millikin: Still glad you came? Anybody else have any questions?