

# **“Houston Air Quality: Meeting the Ozone Standards”**

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Texas Commission on Environmental Quality

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Conference on Houston Air Quality: Meeting the Ozone Standards

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You're having a leisurely Saturday morning. You pour your first cup of coffee and open your morning newspaper. The headlines read, "Houston Beats Los Angeles." But this time, the article's not reporting the Rockets beating the Lakers or the Astros beating the Dodgers. It's reporting that Houston has beat out LA to reclaim the "honor" of having the worst air quality in the nation. A bad dream? NO ... that's exactly what the Chronicle reported this past weekend. So you see --- today's conference is both very timely and extremely relevant. I am proud to be a native Texan, but this is one time where we surely don't want to be number 1 in the nation!

As I think will be readily apparent from my remarks and some other speakers at this conference, there are some, perhaps significant, differences of opinion on the issues. However, there is consensus on the answer to the question of whether we need to meet the 1-hour ozone standard in the Houston-Galveston Area. Yes, it's the law; yes, it's a commitment the State of Texas has made; but it's also imperative to the health of our citizens, the environment and our economic growth. The differences you may hear today will most likely center on our varying perspectives concerning the challenges of how --- not whether --- we meet the 1-hour ozone standard.

First, I'd like to discuss the current status of the State Implementation Plan (the "SIP") for attaining the 1-hour ozone standard in the Houston-Galveston area. In June, we, the TCEQ Commissioners, voted to publish proposed revisions to the SIP for public notice and comment. The comment period closed in early August and TCEQ staff are now finalizing draft responses to the public comments received and, where appropriate, drafting proposed revisions to the SIP for Commission consideration later this year. These pending revisions constitute the long-awaited mid-course review of the SIP, the fundamental purpose of which is to fulfill the Commission's prior commitments to demonstrate and attain the 1-hour standard.

In other words, the Commission must ask and answer the following questions: In the mid-course review process, with the numerous control measures already in place and additional measures proposed, are we able to demonstrate attainment of the 1-hour ozone standard? And, will we actually attain it by 2007? The short answer? Depends on who you ask!

That debate rages on while the scientists differ. The lawyers differ. The policy-makers differ. If you can ignore the din of rattling sabers for just a moment, what will quickly become clear is that the stakes are very high and everyone is invested in the solution to the challenges we face.

So, let's talk about some of the challenges and key issues that are the subject of the debate.

Prior to the December 2002 SIP revisions, we basically relied on NO<sub>x</sub> reductions. The TCEQ and the Environmental Protection Agency believed that the NO<sub>x</sub>-based SIP adopted in 2000, with all of the control measures contained in it, demonstrated attainment and would in fact attain the 1-hour ozone standard --- despite the fact that Texas acknowledged a "shortfall" of 56 tons per day of NO<sub>x</sub>

reductions necessary to achieve attainment, commonly known as the NO<sub>x</sub> gap. We were sued, and entered into a consent decree to decrease the required NO<sub>x</sub> reductions from 90 to 80%, in combination with implementing a strategy to regulate and control 4 highly reactive volatile organic compounds (or “HRVOCs”) from industrial point sources.

At the time, the science -- photochemical grid modeling and ambient VOC data -- provided the basis for the decision to change the NO<sub>x</sub> strategy and implement an HRVOC strategy.

However, since then, critical components of the Houston-Galveston SIP have been, or are proposed to be, repealed, delayed and/or substituted. The ban on vehicle idling, vehicle Inspection/Maintenance in the 3 most rural counties, the 55 mile-per-hour speed limit, and the restriction on commercial lawn mowing are being repealed. The regulations relating to TxLed diesel, small diesel generators and gas water heaters are now proposed to be delayed. And, perhaps more importantly, the NO<sub>x</sub> gap has now somewhat mysteriously gone away with the change in the NO<sub>x</sub> strategy. The success of the December 2002 and our current revisions to the SIP now rely heavily on the HRVOC control strategy.

If you piece all of the SIP revisions together, it is difficult to know today whether the current version, including the pending revisions, will be scientifically and legally defensible. EPA has raised some significant concerns with the proposed revisions, including fundamental components of the HRVOC strategy, modeling difficulties and our weight of evidence argument used to bolster the modeling. From these comments and others, I believe EPA approval is a very real hurdle at this point.

And even if EPA approves our pending revisions, the bottom line is that the SIP has to be legally and scientifically defensible – for both TCEQ and EPA. In upholding EPA’s approval of the 2000 Houston SIP, the U. S. Fifth Circuit Court of Appeals said, “EPA weighed all of the evidence and concluded that the control measures Texas adopted would more likely than not lead to attainment.” For the SIP, in whatever form it ends up, to withstand legal challenge, that same legal scrutiny has to be satisfied.

One very basic issue is whether the TCEQ has included all reasonably appropriate VOCs in the SIP requirements for monitoring and/or implementing control measures for HRVOCs. Again, the answer to this question depends on who you ask. I believe that the data we have currently is insufficient to answer the question. Unquestionably, there’s a direct correlation between the amount and accuracy of our data and the precision and success of our control strategies for attaining the ozone standard.

Furthermore, although the pending SIP revisions are focused on HRVOCs, we don’t really know the amount of HRVOCs that are emitted by facilities in the Houston-Galveston area. We are attempting to regulate an unknown. Why? Because the TCEQ currently has no requirements for monitoring HRVOC emissions. At my first agenda meeting as a TCEQ Commissioner last October 22<sup>nd</sup>, we voted to extend the compliance deadline for monitoring HRVOCs to December 2005. Our reasoning, in effect, was that compliance with that deadline was a practical impossibility for industry. Knowing what I know today, I am not sure I would vote that way again.

Our pending revisions to the HRVOC regulations include a proposed short-term cap and an annual cap and trade program – but we are regulating ahead of the data. We have focused on the ozone “spikes” as a major source of ozone exceedances at specific monitors, and the short-term cap is

intended to address those spikes. The proposed revisions establish a not-to-exceed limit for sites subject to the cap -- those sites may not emit more than 1,200 pounds per hour of the 4 regulated HRVOCs. In my view, there is insufficient data to be sure that this short-term cap is sufficient to address the ozone spikes. I think the EPA agrees.

The annual HRVOC cap and trade program is deemed by some to be the solution. Others believe it is premature in the absence of better and more comprehensive data. The annual cap concept is fairly straightforward; but the trade concept is somewhat murky. If industry doesn't know, until at some point in time after December 2005, which sources are emitting HRVOCs in what quantities, how can we be sure that even the facilities with the best intentions won't, through the sale and purchase of emissions allowances under the cap and trade program, concentrate emissions in a specific area, creating ozone "hot spots"? I don't think we can be sure.

But, this dearth of HRVOC data isn't new. We had this problem in the 2002 SIP. What did we do? We took what HRVOC emissions data we had and multiplied it by a factor of 6. We guesstimated the famous "imputation of 6." We were criticized on every front, but nonetheless, knowing that we had the mid-course review coming up this year, last October the Commission extended the deadline for monitoring HRVOCs. What are we doing now? Guesstimating again.

Let's face it. Our emissions inventory must be comprehensive, complete and accurate. It's not. There's no question that monitors are expensive, and maintaining and analyzing data costs a great deal of money and human resources --- but surely the price of ignorance will far exceed the costs of knowledge.

I don't believe it is outrageous to require industry to ascertain and communicate which facilities are releasing which pollutants and in what volumes. The knowledge obtained from that data would benefit all of us by giving us the tools to regulate to the appropriate level necessary to achieve attainment of the ozone standard. In the absence of that information, we can't tell with any certainty that we are regulating too much, too little or, worse, regulating the wrong pollutants. In the absence of an accurate emissions inventory, it feels like guesswork.

When I speak of our inadequate emissions inventory, I am not limiting my concerns to HRVOCs. There are other VOCs --- the VOCs that are not the 4 HRVOCs currently the focus of our SIP revisions. For our purposes today, I'll simply refer to them as "other VOCs".

Like HRVOCs, other VOCs, in my view, are another challenge for meeting the 1-hour standard. Like HRVOCs, other VOCs are not adequately reported in the emissions inventory. But, unlike HRVOCs, we have no plans pending now or in the future to require monitoring of the other VOCs. It is accepted by most, to some degree or another, that the other VOCs contribute to ozone formation. The pushback on other VOCs centers on the question of whether the other VOC contribution is significant enough to warrant the cost of monitoring and implementing control measures. The irony is that without the monitoring data, we simply don't know whether other VOCs should be regulated or not. With the current approach, we won't know until our current and pending strategies fail or succeed.

In the face of all this uncertainty, we have a SIP for the Houston-Galveston area that may demonstrate attainment of the 1-hour standard by, at best, a razor-thin margin – and that's with full use of weight-of-evidence arguments. I am extremely concerned by our continuing failure to look at a number of reasonable and available options that could increase our margin of success if the

weight of evidence approach does not demonstrate attainment. In fact, we are still being approached with requests to take even more items off the table. For example, facilities in the 7 counties surrounding Harris County are requesting an exemption from the HRVOC cap and trade program. We continue to reduce our options, all in the name of being conservative with our control measures. I don't think we can afford much more conservatism if we are going to clean up the air in the Houston area.

And then there's the challenge of the transition from the 1-hour to the 8-hour ozone standard. Some folks take the Scarlett O'Hara approach and say: "tomorrow is another day" – we'll worry about the 8-hour standard when we must do so. I believe that everything we do for the 1-hour standard at this point should complement our efforts to achieve the 8-hour standard. EPA has made it clear that its approval will also be based on a real analysis of a demonstration that the proposed revisions will not interfere with attainment of the 8-hour standard. They say that any new plan must achieve the same benefits with regard to the 8-hour standard as the approved 2000 SIP. And, with less than a year away from the 8-hour standard going into effect, they caution the TCEQ to consider whether any of the proposed discontinued or delayed measures may be necessary for eventual attainment of the 8-hour standard.

I have stated repeatedly that it is critical that we obtain sufficient data to ensure the validity and integrity of our emissions inventory and to ensure that we are taking appropriate and adequate measures to achieve the 1-hour ozone standard. My perspective has not changed. When the Commission voted in June to publish the proposed SIP for public notice and comment, I expressed these concerns from the dais. I reiterate those comments today.

Over the past 11 months, there have been numerous instances when responses to serious questions have simply been “that’s ‘SIP World’”. To me, SIP world must interface with and make sense in the context of the REAL world.

I have said numerous times that I am very uncomfortable making decisions that will significantly impact the public and the economy of this State for decades to come based solely on theoretical analyses. I believe we have the responsibility to make decisions and impose control measures that are based on sound science and supportable data.

I also believe that we have the responsibility to make decisions and impose control measures that are intended for more than just some paper exercise of demonstrating attainment. I believe we are required to truly demonstrate attainment as best as we can with the scientific tools currently available to us and then achieve it!

If we adopt rules and associated control measures, I believe that those should then be fully implemented and fully enforced.

I believe we have committed the State of Texas to achieve the 1-hour ozone standard by 2007, and I think we must live up to that commitment for the health and welfare of the citizens of this state. Likewise, we are required to achieve the 8-hour ozone standard by 2010.

Even in the current regulatory transition from the 1-hour to the 8-hour standard, I believe it was intended that these 2 phases would work in a coordinated and orderly fashion to achieve the ultimate goal of clean and healthier air in Texas. I think we should fully implement that intent through our actions on the SIP. The bottom line is protecting the citizens of this state by providing



them cleaner air in a manner that is reasonably consistent with fostering a sound economic climate in Texas.

I think we can do that --- we MUST do that! But to achieve that goal, we all have to work in full coordination and cooperation, NOT at odds --- either with each other or as to the ultimate outcome. We have to set aside any and all parochial ideas that the status quo will get us there, and fully realize that we likely must make major adjustments in many aspects of our public lives and our industries to succeed.

And we must accept the fact that we may not always be able to limit the costs of these necessary adjustments --- but we cannot afford not to incur those costs!

I voted in June to propose SIP revisions and associated documentation in order to get as much open public comment as we could get. But, as currently presented, I for one cannot say one way or the other that we have demonstrated attainment or that we can achieve attainment. I believe the current documentation before us today leaves many questions unanswered or unaddressed which I believe can and must be answered.

How I will make my decisions when these proposals come back to us later this year will depend on whether the many unanswered or unaddressed questions and issues I have get answered or addressed through the public comment process and associated further analyses.

I continue to be frustrated that we continue to propose control measures and strategies that will significantly impact the public and the economy of this State for decades to come ahead of securing adequate and reliable data. The TCEQ's ambient monitoring network is a significant effort to

address this deficiency, but it is not the sole and definitive answer to all the unanswered and unaddressed questions. Only when we have adequate and reliable data can we reasonably and effectively determine who will be impacted by the control measures and strategies we are considering; how they will be impacted; at what cost and for what benefit will they be impacted; and then what should we do to reasonably and fairly address the impacts.

But I have to say I have been most distressed and frustrated at the unwillingness of many to leave all reasonable options open for discussion so that we will not be hindered, or indeed precluded, from making necessary or appropriate decisions at the end of this process. I can only hope the proposals and concepts we have put forth will eventually lead us to cleaner and healthier air in Houston.

Houston Mayor Bill White has taken some very strong public positions on the air quality issues facing the Houston area. Back in May he appeared before us and said “The citizens of this community are willing and are ready for leadership that is committed to making clear and measurable progress on clean air.” I applaud Mayor White for providing some of that required leadership he speaks of. It’s up to a lot of us to also do the same.

I take no pleasure in saying that the remarks I made in June remain as true to me today as they did then. When the Houston air quality monitors are today showing ozone levels characteristic of 1998 and 1999, I don’t readily see that “clear and measurable progress on clean air” the citizens of Houston demand and deserve. I think we still have a long, difficult road ahead of us with a very short time in which to travel it.

Thank you for allowing me to express my thoughts.