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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

May 23, 2014

The Honorable David Vitter
The Honorable John Cornyn
The Honorable James M. Inhofe
The Honorable Jeff Sessions
The Honorable Tim Scott
United States Senate
Washington, DC 20510

Dear Senators Vitter, Cornyn, Inhofe, Sessions, and Scott:

The Texas Commission on Environmental Quality (TCEQ) is responding to your letter dated May 14, 2014, to Mr. Michael Vince, President of the Association of Air Pollution Control Agencies (AAPCA). In your letter, input was requested from AAPCA member states on the U.S. Environmental Protection Agency's (EPA) forthcoming rulemaking on national ambient air quality standards for ozone. Texas is a member of AAPCA and the TCEQ is pleased to provide the attached response. Please note that the information provided here reflects the views of the TCEQ and not necessarily those of AAPCA as an organization.

The TCEQ has serious concerns about the Clean Air Scientific Advisory Committee (CASAC) process and conclusions regarding the lowering of the ozone standard. Our determination, based on our analysis of the various studies and the record established by CASAC, is that EPA has not made the case that a lower ozone standard will improve public health or save lives. In addition, lowering the standard to levels that approach the background of ozone entering Texas will have serious economic consequences and it will be difficult, if not impossible, for the state to demonstrate attainment with the lower ozone standard. Our concerns are outlined in more detail in the attached responses to your questions.

If you have any questions, please feel free to contact Mr. Steve Hagle, P.E., Deputy Director, TCEQ, Office of Air, at steve.hagle@tceq.texas.gov or 512-239-1295.

Sincerely,

A handwritten signature in cursive script that reads "Bryan W. Shaw".

Bryan W. Shaw, Ph.D., P.E.
Chairman

Texas Commission on Environmental Quality Response to Questions Regarding the Process
for Revising National Ambient Air Quality Standards for Ozone

1. *Is the CASAC process open and transparent? Does the process enable CASAC to sufficiently consider all viewpoints on the science of ozone and its impacts on public health and welfare? Are there specific changes you would recommend to make it more open to the public, and more conducive to scientific inquiry and debate?*

In some ways, the Clean Air Scientific Advisory Committee (CASAC) process is open and transparent. For example, discussions are held in public teleconferences and meetings and public comments are accepted. However, in other ways, the process is less open and transparent. For example, the selection process of CASAC members is unclear and there are many instances where individuals are repeatedly re-appointed to the panel, limiting the opportunity for new and potentially different points of view.

In the past, the CASAC has been relatively well-balanced in terms of expertise and range of opinions. However, in recent years the trend has been towards inclusion of more epidemiologists from academia, at the exclusion of other areas of expertise, such as toxicologists, and with little or no representation of well-qualified scientists from states and industry. This is perhaps the result of a misunderstanding of the role scientists play in these organizations together with a misplaced perception of potential conflicts of interest.

One concern that is often raised when deciding to exclude certain parties from the process of U.S. Environmental Protection Agency (EPA) peer review is bias due to source of funding. However, receiving funding from the EPA in the form of research grants could also be seen as a potential source of bias. Under the current system, the EPA can select who it wishes to fund, choose key studies to support regulatory decisions, place the authors of those studies on the CASAC, and then ask their opinion on the resulting analysis and policy. Clearly, this poses a potential conflict of interest, even if the study authors recuse themselves from discussions which directly address their own work.

We would instead propose a more balanced approach, such as that employed by the non-profit organization Toxicological Excellence in Risk Assessment (TERA). TERA believes, and we concur, that an objective evaluation by independent experts with a variety of viewpoints is critical to the credibility of any peer review. TERA strives to include a range of perspectives on each panel, including diverse professional affiliations. The evaluation of real or perceived bias or conflict of interest is an important consideration for both peer review and consultation panels and every effort is made to avoid conflicts of interest and biases that would prevent a panel member from giving an independent opinion on the subject. TERA's conflict of interest policy (see <http://www.tera.org/peer/COI.html>) identifies the following situations as examples of those that could create a real or perceived conflict of interest:

- Working for an organization that sponsors or contributes to the document to be reviewed,
- Having direct personal financial investments benefiting from the outcome of the review, or
- Authoring or providing significant comments on the documents being reviewed.

The TERA conflict of interest policy also discusses bias. For these reviews, the term “bias” means a predisposition towards the subject matter under consideration that could influence the candidate’s viewpoint. Examples of bias would be situations in which a candidate:

- Has previously taken a public position on the subjects to be discussed, or
- Is affiliated with an industry, governmental, public interest, or other group with a partiality regarding the subjects to be discussed.

As you can see from these examples, such potential conflicts or biases could apply equally to academicians as they may to scientists from industry or any other organization. Therefore, it is our belief that there is a need for reconsideration of current conflict of interest policies regarding EPA advisory panels. There is also much improvement needed with regards to a balanced peer review that incorporates numerous perspectives and areas of expertise. We believe that these changes will result in a stronger peer review process and ultimately better policy decisions.

Finally, oral testimony at the CASAC meetings is limited to three or five minutes, hardly enough time to present a thorough argument. This illustrates the need for EPA’s advisory panels to be balanced. Having balanced panels brings all information into consideration which reduces “group think” and leads to better policy decisions.

2. *Has CASAC and EPA adequately considered the practical problems involved in lowering ambient concentrations of ozone in some areas beyond regional background levels?*

The Texas Commission on Environmental Quality (TCEQ) feels that CASAC and EPA have not adequately considered the practical problems associated with a national standard that approaches regional background.

In the ozone Policy Assessment, EPA acknowledges that there is uncertainty in extrapolating health risks from ozone exposures that go beyond the ozone levels measured in the relevant epidemiology. However, EPA presents analysis on “total” risk modeled down to zero, outside the range of the available data. This is problematic because there is no way to determine the uncertainty surrounding the risk estimates for the alternative standards under consideration.

In reviewing the studies cited by EPA in the Policy Assessment, associations between ozone and selected endpoints generally became weaker and not significant at lower ozone levels. EPA did not incorporate these findings in its risk assessment. Instead, risks were extrapolated below the lowest measured levels of the selected studies and to zero ozone, even though the data from the underlying studies did not report effects at low levels of ozone.

Perhaps more importantly, in assigning risk below background levels of ozone, EPA is suggesting risk below levels that can be potentially modified by implementation of the ozone National Ambient Air Quality Standards (NAAQS), as emphasized by CASAC in its review of the first draft Health Risk and Exposure Assessment. In fact, one member of CASAC stated “The C-R function which goes down to zero makes little sense. First of all, such levels are never obtained... Secondly, this zone has little value since it cannot be influenced by the regulatory process.” This commenter continues “...we should have a vision of what levels/cut offs are scientifically sound and contribute to standard setting in a practical way.” A second commenter added “[g]iven the background levels of O₃ that cannot be controlled by U.S. regulatory actions, this reviewer endorses applying the C-R function down to the LML and does not support obtaining risk estimated down to zero.”

Given the uncertainty surrounding risks calculated at low levels of ozone, the TCEQ urges EPA to assess risk above background ozone levels, as these are the levels that can potentially be controlled by regulation.

Finally, EPA estimates background ozone constitutes as much as 80% of the total seasonal mean O₃ in areas of Texas. This calls into question the reasonableness of the proposed alternative standards. EPA states “[p]roximity to background levels could be an additional consideration...” when setting the NAAQS (p2-27). The TCEQ urges EPA to appropriately consider background when setting the NAAQS for ozone.

From an implementation aspect, if the standard is reduced to a level near the ozone level entering the nonattainment areas, the only possible means for nonattainment areas to attain the standard is to reduce the background level pollution from upwind areas. While states may be able to reduce intrastate transport pollution to some degree for sources within their geographic boundaries, this may have limited benefit and may require broad controls on numerous sources upwind of the nonattainment area. If the pollution background levels entering the state exceed the standard then a state will not be able to attain the standard through its own actions. Going from current ozone levels in Texas to a level below 60 parts per billion (ppb) would likely require a significant reduction in background ozone levels coming into Texas as well as a reduction in emissions from mobile sources. Texas would be extremely challenged in meeting such an ozone NAAQS of 60 ppb within the near future.

3. *Are you confident, based on the record thus far, that CASAC and EPA will arrive at conclusions that accurately reflect the current state of all scientific research on the effects of ozone? What actions could CASAC and EPA take to improve confidence that they are basing their decisions on appropriate scientific research?*

Based on the record so far, the TCEQ is not confident that CASAC and EPA will arrive at conclusions that accurately reflect the current state of all scientific research on the effects of ozone. This is due, in part, to the fact that EPA has not applied a rigorous weight of evidence framework to integrate results from human clinical studies, epidemiological studies, and animal studies. Throughout the draft Health Risk and Exposure and Policy Assessment documents, studies are described as “positive” without indicating whether the results were statistically significant, biologically plausible or clinically meaningful, or consistent with other studies. For example, newer studies (Smith *et al.* 2009, Zanobetti and Schwartz 2008, and Jerrett *et al.* 2009) were not weighed against other studies that reported “small associations or no associations” between ozone and mortality (p3-36). This practice results in an inaccurate perception that most of the available evidence supports a causal relationship between levels of ozone below the current standard and purported health effects.

In its consideration of weight of evidence, it is not clear how EPA evaluated consistency across studies or whether evidence evaluated across realms was ultimately considered. For example, how likely are the associations between cardiovascular mortality when cardiovascular morbidity endpoints are inconsistent and not generally supportive of the mortality endpoints? In addition, it is not clear how the evidence laid out in the Policy Assessment leads EPA to determine there is likely to be a causal relationship between short-term exposure to O₃ and cardiovascular system effects, including mortality, because EPA has described this evidence as “inconsistent” and “confounded by other pollutants.”

A rigorous weight of evidence evaluation should be conducted, rather than giving positive results more weight than null results simply because they are positive. Based on EPA’s incomplete evaluation of the evidence, it is not clear that there are causal relationships for

health effects at ozone exposures below the current standard. The TCEQ urges EPA to use a rigorous weight of evidence as recommended by the National Academy of Sciences (NAS), and believes that EPA should not make policy judgments without assessing all of the available evidence.

The CASAC should encourage EPA to refine its approach to weight of evidence evaluation. For example, the NAAQS causal framework lacks guidance regarding evaluation of study quality. The framework does not provide explicit guidance to ensure that study quality can be evaluated in a consistent manner across studies using well-defined criteria. Indeed, the current CASAC ozone panel has noted issues in EPA's analysis of the health-related literature including instances where EPA has described "consistent" associations when the literature has been less clear.¹ The TCEQ urges CASAC to take up the important task of advising EPA on how the NAAQS causal framework as well as the process for evaluating weight of evidence could be improved.

4. *In your view, is CASAC required by the Clean Air Act to report on economic impacts when it advises the Administrator on implementing – as opposed to setting – a new standard? As the CAA reads, CASAC “shall also... advise the Administrator of any adverse public health, welfare, social, economic, or energy effects which may result from various strategies for attainment and maintenance of such national ambient air quality standards.” Do you agree that having CASAC provide advice to the Administrator in this regard would assist you and your states in developing implementation plans to meet a new standard?*

TCEQ agrees that CAA § 109(d)(2)(C) does require CASAC to advise the Administrator on the economic impacts from both the setting and implementation of a new standard. In this regard, we note and agree with the March 13, 2014 letter from Jeffrey Holmstead of Bracewell & Giuliani, LLP, to Dr. H. Christopher Frey, Chairman of the Clean Air Act Science Advisory Committee (attached).

The strategies that might be implemented to bring a nonattainment area into and maintain attainment with the NAAQS can have adverse public health, welfare, social, economic, or energy impacts. As stringent emission controls on large sources become more prevalent, controls on minor sources may be considered in the development of the state implementation plan (SIP). However, control strategies targeting minor sources have a greater likelihood of having an adverse impact on small businesses. Additionally, some pollution control strategies targeting one pollutant can actually cause an ancillary increase in other pollutants. For example, some pollution control approaches on combustion sources to reduce nitrogen oxides (NO_x), a precursor of ozone, can cause carbon monoxide emissions to increase from the same source. Other pollution control technologies rely on the use of ammonia or urea to reduce NO_x emissions from the source, resulting in increased ammonia emissions. Continued implementation of increasingly more stringent strategies to reduce one pollutant may create new public health issues that did not previously exist. The TCEQ considers such factors when developing strategies for the SIP and recommendations from CASAC may not provide much direct benefit to Texas. However, it is important that such considerations also be included in the EPA's decisions, particularly in developing the implementation rule for a new NAAQS and for federally mandated strategies for attaining and maintaining a NAAQS.

¹ [http://yosemite.epa.gov/sab/sabproduct.nsf/E67094C7FBBECD8685257AC200727082/\\$File/EPA-CASAC-13-003+unsigned.pdf](http://yosemite.epa.gov/sab/sabproduct.nsf/E67094C7FBBECD8685257AC200727082/$File/EPA-CASAC-13-003+unsigned.pdf)

5. *Please describe some of the practical and economic difficulties your states could face in implementing new measures to meet a more stringent ozone standard.*

Texas currently has two areas designated nonattainment for ozone, the Dallas-Fort Worth (DFW) and Houston-Galveston-Brazoria (HGB) areas. Based on the most recent air monitoring data available, if the EPA lowers the ozone NAAQS to 60 ppb Texas could have as many as 15 areas designated nonattainment, requiring the state to develop nonattainment plans for each area in addition to requiring nonattainment permitting (including the requirement for sources to obtain emission offsets prior to construction or modification. This includes areas along the Texas-Mexico border, major metropolitan areas currently designated as attaining the ozone standard, and rural areas with no major sources of ozone precursors.

From an economic standpoint, regulations required by the Federal Clean Air Act would impact industry, some small businesses, local governments, and the public in nonattainment areas, in addition to having economic impacts statewide arising from the increased regulatory burdens on nonattainment areas. Industry and small businesses would incur increasing costs associated with emissions controls and permitting requirements in nonattainment areas. For example, if an area is designated nonattainment with a classification of moderate or higher, emissions sources in the area are subject to reasonably available control technology (RACT). RACT applies to all emission source categories addressed in EPA guidance (including small businesses like coating and printing operations) and all major stationary sources (such as industrial boilers and stationary engines).

Another example is nonattainment new source review (NNSR) permitting, which requires major sources to offset any new emissions by reducing emissions from existing sources. This is one of several factors that industry considers when deciding on locations for new development or whether to expand or maintain existing operations. An increased number of ozone nonattainment areas will lead to new and additional permitting and regulatory requirements at both sites that are not currently subject to federal permitting requirements and are not currently affected by a SIP control strategy. The additional permitting and regulatory requirements will result in additional monitoring needs, both new and more complex investigation activities for compliance, and the increased potential for enforcement activities.

More specifically, additional nonattainment areas in Texas would result in the requirement to conduct lengthier, more in-depth permitting reviews under the NNSR program for more sources and smaller sources than have been historically reviewed. This process would involve significantly more state staff time and resources and could drastically impact the permitting timeframes and costs for applicants. Review of applications under NNSR could potentially increase permitting timeframes 80 to 320 days. Additionally, NNSR requires application of Lowest Achievable Control Technology (LAER) and the purchase of offsets for any proposed new source or modified existing source that trigger the NNSR permitting requirements. LAER is the most stringent level of control used in practice (anywhere in the country), and does not allow for consideration of the cost associated with the control, which could result in significantly higher costs for any proposed project. The costs would be further exacerbated by the requirement to purchase offsets for any proposed emissions increases subject to NNSR. The amount of offsets required would be directly related to the nonattainment classification of the nonattainment area within which the project is proposed. The more stringent the nonattainment classification, the greater the offset

requirement becomes and thus the more costly the project. The increased costs and lengthier review time could be a disincentive for facilities to expand or locate in Texas and in some circumstances may be cost prohibitive.

For existing ozone nonattainment areas, the SIP rules may be modified to strengthen the control technology requirements and possibly expand the SIP control technology requirements to sites that are not currently subject to those emission controls. For new ozone nonattainment areas, sites within those areas will now be subject to SIP control requirements, in addition to possibly being subject to NNSR.

In addition to the increased timeframes, level of review, and costs to get a NNSR permit, lowering the ozone standard would change (lower) the definition of what constitutes a major source. This means that more sources in Texas would be subject to the Title V Operating Permit requirements, including some existing sources that will be required to apply for a Title V permit. Depending on the established major source level, this could result in a significant workload increase for the operating permits section. When required, Title V Operating Permit applications can take approximately one year to process and must be obtained prior to beginning operation of any new facility or changes to existing facilities. Major sources are required to have their NNSR (if applicable) before start of construction and their Title V permits prior to start of operation.

TCEQ Regional Investigators will be required to conduct additional investigations at sources that are deemed to be major sources under a revised ozone standard. Regional staff may potentially be required to conduct investigations at additional sources, including minor sources, if additional rules are promulgated to further reduce emissions from ozone precursors [NO_x and volatile organic compounds (VOC)] in the ozone nonattainment areas as a part of the SIP for the revised ozone standards. In addition to an increase in the number of mandatory investigations at these new sites, the agency may see an increase in the number of complaints received that would require follow-up investigations. An increase in investigations would eventually result in additional enforcement actions to be processed by TCEQ.

Furthermore, in areas such as DFW and HGB, which have already implemented stringent emission controls for attainment the previous ozone standard, further emission reduction become a significant technological and economic challenge. Even if additional emission reductions may be technologically feasible, such strategies are expected to be significantly greater incremental cost on a dollar per ton of reduction basis. Also, as discussed in response to Question 2, a more stringent ozone standard would also raise serious practical problems with attaining a standard if background ozone levels entering the area exceed the standard.

Nonattainment can also have an impact on local governments and the public. Local governments in nonattainment areas are subject to transportation conformity, which applies to transportation plans and projects funded or approved by the Federal Highway Administration (FHWA) or the Federal Transit Administration (FTA). Drivers may also be impacted. Vehicle Inspection and Maintenance (I/M) programs are required in nonattainment areas classified as moderate or above. In addition to their safety inspection, drivers in those areas are required to pay a fee to have their vehicle inspected to ensure it meets emissions requirements.

Implementation of a new ozone NAAQS could also increase the administrative costs to state and local governments. The increased burden of potential additional air monitoring requirements, nonattainment new source review permitting, and SIP development would be

borne by the state. Local governments in new nonattainment areas would bear the burden of additional transportation planning requirements to comply transportation conformity.

From a practical standpoint, stationary sources in Texas have already made significant emission reductions. In the last 13 years (2000 to 2012), statewide emissions of ozone precursor emissions from large stationary sources have dramatically decreased. Emissions of NO_x and VOC have decreased by 63% and 41%, respectively. A result of these large decreases in emissions from stationary source is that now the large majority of ozone precursor emissions are from mobile sources in many areas. For example, mobile source emissions represent 80% of the NO_x emissions in the DFW ozone nonattainment area and 71% of the NO_x emissions in the HGB ozone nonattainment area. Furthermore, Texas would be limited in our options to address mobile emissions given that we have very limited authority over mobile engine emission standards, the high volume of interstate traffic (from the North American Free Trade Agreement for example), and the fact that federal funds for congestion mitigation would be further diluted by having more nonattainment areas.

March 13, 2014

Dr. H. Christopher Frey
Chairman, Clean Air Act Science Advisory
Committee
Department of Civil, Construction, and
Environmental Engineering
North Carolina State University
Raleigh, NC 27695-7908

Re: Your January Presentation on CASAC

Dear Dr. Frey:

I recently had the chance to view and listen to the webinar presentation on CASAC that you did on January 8th for the Air and Waste Management Association. I very much enjoyed it. And even though I served for several years as the EPA Assistant Administrator for Air and Radiation and have been a keen observer of CASAC for many years, I also learned a fair bit. You did an excellent job of describing the role of CASAC and the CASAC panels and how the members of these groups are selected and interact with each other.

I am concerned, however, about one misstatement you made regarding the statutory duties that CASAC has under the Clean Air Act. Near the beginning of your presentation, you had a slide that listed the five specific responsibilities that Congress gave to CASAC as part of EPA's 5-year review of an existing NAAQS under Section 109(d)(2) of the Clean Air Act:

- (1) Review the air quality criteria and the primary and secondary NAAQS for the pollutant under review and recommend any new NAAQS or revisions to existing NAAQS as may be appropriate;
- (2) Advise the Administrator of areas in which additional knowledge is required to appraise the adequacy and basis of existing, new, or revised NAAQS;
- (3) Describe the research efforts necessary to provide the required information;
- (4) Advise the Administrator on the relative contribution to air pollution concentrations of natural as well as anthropogenic activity; and

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- (5) Advise the Administrator of any adverse public health, welfare, social, economic, or energy effects which may result from various strategies for attainment and maintenance of the NAAQS.

In your presentation, you said that the fifth task is different from the first four because the first four are part of the five-year review process, but the fifth is not. According to my notes, you said that the fifth task – advising the Administrator of any adverse public health, welfare, social, economic, or energy effects which may result from efforts to attain or maintain the NAAQS – is a “separate activity” and is “not really part of the review cycle for any existing NAAQS.”

This interpretation of the Clean Air Act is simply incorrect. There is no way to read the statute that makes the fifth task any different from the other four in terms of either timing or importance. As you may know, the last four tasks on your list are set forth as co-equal subsections (i), (ii), (iii), and (iv), and are preceded by language that simply says “The Committee [CASAC] shall” do each of the following four things. CASAC’s obligation to perform the tasks listed in subsection (iv) is no different than its obligation under the other three subsections.

I realize that CASAC traditionally focuses on the specific charge questions that are presented by EPA staff. It is certainly important for CASAC to respond to these questions, but Congress made it clear that CASAC has a broader role than simply speaking to the issues that EPA may want it to address. By statute, CASAC is supposed to evaluate “any adverse public health, welfare, social, economic, or energy effects which may result from various strategies for attainment and maintenance” of the NAAQS under review, regardless of whether EPA staff poses questions about these issues.

As you noted in your presentation, the Supreme Court has said that EPA is not permitted to consider costs when it determines the level and form of any NAAQS. But this has no bearing on CASAC’s statutory obligations. Congress clearly intended CASAC to play a broader role than simply advising the Administrator about the level and form of the NAAQS.

As you know, EPA itself does a cost-benefit analysis for any new NAAQS or any revision of an existing NAAQS – even though the Administrator does not consider the cost side of this analysis in setting the NAAQS. EPA’s cost analysis provides important information to the public, even though it is not used in setting the NAAQS.

Likewise, CASAC clearly has a statutory obligation to advise the Administrator – and through her, other policymakers and the public – of “any adverse public health, welfare, social, economic, or energy effects which may result from various strategies for attainment

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and maintenance of' the NAAQS. All CASAC's statutory responsibilities are listed under the section of the Clean Air Act dealing with the 5-year NAAQS review process, and CASAC has an obligation to examine potential adverse health, welfare, social, economic and energy effects of the NAAQS as part of this process. It seems quite clear that Congress wanted CASAC to provide policymakers with information about the tradeoffs that we all face as our society spends resources on "strategies for attainment and maintenance of the NAAQS."

In my own view, based on almost 25 years of working on Clean Air Act issues, the question of tradeoffs is especially relevant to the ozone NAAQS. Given the status of the ozone NAAQS review, it might be appropriate for CASAC to request that EPA staff add an additional chapter to the Policy Assessment that specifically discusses the potential adverse health, welfare, social, economic and energy effects of actions that will be needed to attain the ozone NAAQS and potential revisions that are under consideration. This would certainly provide a valuable starting point for CASAC's evaluation of these issues.

As you know, EPA and state environmental agencies have been focused on reducing concentrations of ozone for more than 40 years (although the term ozone was not used in the early years). As a country, we have probably spent more money to address ozone than to address any other air pollutant – and it is certainly true that ozone concentrations have been reduced substantially in most parts of the U.S.

Even though there has been considerable progress in reducing ozone formation, there are many areas of the country that have not attained the current ozone NAAQS of 75 ppb. In fact, there are several major urban areas that, although they have made dramatic improvements in air quality, are still a long way from meeting this standard. These areas have not been negligent in their efforts to regulate sources of air pollution. In fact, many of them – in California, Texas, and the mid-Atlantic region in particular – have been extremely aggressive in regulating virtually every imaginable source of ozone precursors. In my discussions with regulatory officials, they say that there is little more that they can do.

To be sure, ozone concentrations in these areas will continue to decrease gradually as lower-emitting cars, trucks, and non-road engines replace older vehicles and engines. But these decreases will fall far short of what will be needed in many areas to attain even the current ozone standard. Thus, there are at least two important questions facing regulators and policymakers:

- 1) What more can be done to reduce ozone formation – especially in areas that have already been regulating aggressively for many years?

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- 2) If there are additional things that can be done to meet the current or lower standards for ozone under consideration, what are the impacts (including any adverse public health, welfare, social, economic, or energy impacts) of doing them?

Congress clearly intended for CASAC to play a role in answering these important questions, and I hope that CASAC will do so as part of this review cycle.

Very truly yours,

Bracewell & Giuliani LLP

/s/ Jeffrey R. Holmstead

cc: Dr. Holly Stallworth, EPA