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Ms. Susanna Hildebrand
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Dear Ms. Hildebrand,

Enclosed are the comments of the Houston Regional Group and Lone Star Chapter of the Sierra Club (Sierra Club) regarding initial input into the Texas Commission on Environmental Quality's (TCEQ) Houston-Galveston-Brazoria (HGB) Eight-Hour Ozone State Implementation Plan (SIP) planning process.

For these comments, we are going to state how we want the SIP planning process to work and provide a list of control measures (CM) we want TCEQ to quantitatively and qualitatively analyze, assess, and evaluate along with rule effectiveness analysis.

SIP Planning Process

The Sierra Club is very disappointed with the TCEQ SIP planning process over the past few years. The SIP planning process, in our view, has removed from consideration CMs that were viable and should have been analyzed. We feel the SIP planning process was not operated with good faith effort. At a minimum the SIP planning process should adhere to the following principles:

1) Abandon the minimalist and incremental CMs policies of TCEQ and its predecessor agencies. The HGB ozone non-attainment area is in no danger of over-controlling ozone precursors and with regard to TCEQ's concern, wasting money. The argument for over-controlling of ozone precursors has been around for as long as I have participated in the SIP planning process (31 years). Over-control has never happened and with the terribly inaccurate emissions inventory (EM) we have today (probably underestimating VOCs 1-10 times) will not be a concern for many years to come.

2) Analyze quantitatively and qualitatively the effect that implementation of state-wide applicable nitrogen oxides (NOx) and volatile organic compounds (VOC) rules have on ozone attainment (and trans-boundary movement of ozone precursors) for all Texas ozone non-attainment areas.

3) Include interim control measures which will be implemented ahead of the approval of the SIP so that contemporaneous ozone precursor reductions are obtained and the risk of morbidity and mortality is reduced for people. This means we keep progress and momentum rolling while reducing people's health risks. This is particularly important since we have a new, lower, National Ambient Air Quality Standard for ozone.

4) Include more actual monitoring for ozone precursor emissions in the SIP and regulations. This includes continuous emission monitors (CEM); infrared cameras for VOC leak detection and repair programs as a supplement, not a replacement, for hand-held hydrocarbon monitors; and fence-line monitoring including Fourier Transform Infrared (FTIR) and other monitors. Because the EM is so poor and because 2000 and 2006 TCEQ studies have shown incredible amounts of VOCs are being emitted from large industrial plants we need real monitoring data to show what actual air emissions are in air inside the plant; at specific units in the plant; at specific components in specific units in the plant; at the fence-line of the plant; and in the neighborhoods and communities that exist next to the plants.

5) Adopt as many "more stringent" California regulations for on-road vehicles, off-road vehicles, area sources, refineries, and other sources as possible.

6) Ensure that each CM is clearly explained with a narrative so the public understands what it is.

7) Ensure that for each CM that is eliminated from consideration there is a clear, full, explanation of why it was eliminated.

8) Require a comparative quantitative and qualitative analysis for cap and trade versus source by source emission limitations (equal to best available control technology (BACT) and lowest achievable emissions rate (LAER)) CMs.

9) Require that any SIP has additional personnel needs provided. TCEQ always states no new personnel are needed to implement the SIP. The Sierra Club has talked to TCEQ personnel and they disagree that more investigators are not needed. More, complex, comprehensive, and thorough investigations are needed to implement a serious SIP attempt at meeting the eight-hour ozone standard.

10) A comprehensive rule effectiveness analysis must be part of any quantitative and qualitative analysis of each CM.

11) The quantitative and qualitative analysis of CMs must be done before the CM is either kept or eliminated from study. This allows the public and decision-makers to comparatively view each CM.

12) Require bundling of CMs to assure overlapping and reinforcement of low reduction control measures. In this way bundled CMs can contribute a more significant emission reductions and or assure that the emission reductions occur.

13) In the 2007 HGB Ozone SIP the emission control measure (ECM) selection processes were flawed. The processes stated that here is the master list, now give us input. The ECM selection processes stated that "Over the next few weeks, control measures on the Menu will be qualitatively analyzed". This action invalidated citizen input because there was no time for the public to discuss and know why the ECMs that were chosen were chosen and those ECMs that were not chosen were not chosen. The public does not have the ability to review, comment on, and learn about the master list; why some ECMs are or are not qualitatively or quantitatively analyzed "with respect to emission reductions, technical feasibility, public acceptability, relative air quality effect, and cost effectiveness"; and then comment before the process has already begun to reduce the number of ECMs that will be considered. A quantitative and qualitative analysis, assessment, and evaluation and rule effectiveness analysis must be conducted before eliminating any CMs.

14) TCEQ must not allow the contractor to arbitrarily eliminate CMs that are not cap and trade oriented, like source by source emission limitations, as occurred in 2006 by Environ.

15) Require an additional 20-30% reduction in ozone precursors above what the model shows are needed to take into account partially the inaccurate EI.

16) There must be an explanation about how each score was derived and what it means for CMs in the screening process. This is particularly important when phrases are used which do not obviously provide a clear definition. For example, in the 2007 HGB Ozone SIP process regarding preliminary scoring criteria the following phrases were used with no definitions:

highly practical; may be practical if carefully implemented; appears to be impractical; too impractical to be implemented successfully; public likely to react positively; public will accept if carefully implemented; will generate controversy regardless of how it is implemented; public unlikely to accept measure; strategy if considered to be inexpensive to implement relative to the potential for emission reductions; strategy is considered to be moderately inexpensive to implement relative to the potential for emission reductions; strategy if considered to be moderately expensive to implement relative to the potential for emission reductions; and strategy is considered to be very expensive to implement relative to the potential for emission reductions.

17) CMs should have a cost effectiveness of at least $10,000/ton of ozone precursor controlled.

18) The 10% NOx reduction (from 80% to 90%) for large industrial sources that TCEQ did not make due to an agreement made to settle an industry lawsuit should now be made.

19) The TCEQ must require that any cap and trade CMs be fully estimated. In the 2007 HGB Ozone SIP process, Environ, in Appendix A, Evaluation of Suggested Short List Control Measures, stated "Determining an appropriate approach for demonstrating compliance with any revised MECT cap will require that each affected source performance an engineering and economic assessment of their operations and make a decision that is appropriate for their circumstances", or "Environ does not have sufficient information to accurately determine potential emission reductions via application of technically feasible control technologies", or "Without conducting source-specific engineering feasibility assessments, there is insufficient information to accurately predict the technical feasibility or cost of lowering NOx emissions for individual emission units or affected sources".

The analysis that should be in the CMs document was not in the document. This causes the public to end up with no reliable or close to reliable cost information and no reliable or close to reliable emission reduction information. How can the public give reliable feedback on ECMs when such important information is missing from the document? For this new SIP planning process this information must be available to the public so it can review, comment on, and understand the proposal.

20) The TCEQ must not allow the use of 98% as the control efficiency for flares. TCEQ has received comments from Industrial Professionals for Clean Air and others that indicate that flares often cannot and do not operate at this level. Therefore emission reductions for flares will be less than the 98% control efficiency suggests.

Control Measures that Require Quantitative and Qualitative Analysis and Rule Effectiveness Analysis

On-Road Source Control Measures

1) For the **Bicycle and Pedestrian CM category,** a comprehensive program of bicycle and pedestrian CM is necessary for this category to work well as a CM. Even if quantification of emissions reductions for some CM cannot be done bundling of many CMs may be necessary to ensure that emissions reductions occur. In other words, an integrated program is necessary for the Bicycle and Pedestrian category to work well. A package of CM is necessary not one CM. As TCEQ well understands if air quality is to be addressed successfully then the transportation component of air quality must be addressed successfully.

The Sierra Club recommends that the following **Bicycle and Pedestrian** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. Segways should not be allowed for use on sidewalks because they are motorized vehicles. Hike/bike trails should be for pedestrians and human powered modes of transportation (skates, in-line skates, human-powered skooters, etc.). Segways do not require that you exercise and add to the obesity problem. We should not allow operation of a motorized vehicle where human-powered vehicles or walking occurs.

2. Safer bike routes with better signs marking lanes and routes.

3. Inclusion of bicycle lanes on state/federal funded thoroughfare projects.

4. Bicycle route signalization.

5. Bicycle lanes on every arterial/frontage road.

6. Bicycle lane/path repaving.

7. Bicycle route lighting.

8. Increased bicycle/pedestrian outreach to immigrant communities.

9. Media coverage/promotion of bicycle facilities.

10. Bicycle education.

11. Region-wide mandatory bicycle racks at work sites.

12. Address security concerns of pedestrians/cyclists.

13. Showers and clothing lockers.

14. Bicycle lockers, rack, and other storage facilities.

15. Biking/hiking patrols to ensure safety.

16. Integration of bicycle/pedestrian facilities with transit.

17. Permit bicycles on rail transit.

18. Bicycle racks on buses.

19. Street level shops.

20. Give bicyclists/pedestrians the right-of-way.

21. Cyclist/pedestrian sidewalk furniture.

22. Sidewalks and walkways.

23. Crosswalks.

24. Additional pedestrian access and circulation.

25. Pedestrian signals.

26. Connected street system and pedestrian pass-throughs.

27. Pedestrian design improvements.

28. Mid-block pedestrian connections.

29. Wide, unobstructed sidewalks on both sides of all arterials, major roads, and other streets.

2) For the **Clean Vehicle Program CM category,** voluntary programs must be replaced by mandatory programs or the emission reductions are not guaranteed. The Sierra Club recommends that the following **Clean Vehicle Program** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. Close loopholes in the Texas Clean Fleet Program making fewer exemptions for fleets.

2. Hybrid vehicles.

3. Electric buses.

4. Fuel cell school buses.

5. Airports use Ultra Low Emitting Vehicle (ULEV) or electric vehicles instead of diesel for ground transportation.

6. Propane school buses.

7. Use solar cells to run air conditioning and other electrical equipment on Metro buses.

3) For the **Freeway Incident/Roadway Construction Management CM category,** the Sierra Club recommends that the following **Freeway Incident/Roadway Construction Management** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. Locate hazardous freeway areas for possible improvements, sharp turns, clover leafs, etc.

4) The Sierra Club recommends that the following **Freeway System Infrastructure** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. Limit road and highway improvements to those benefiting transit and high occupancy vehicle lanes.

2. Shift highway funds to transit.

3. No new peripheral highways or loops.

5) The Sierra Club recommends that the following **Fuel Standards** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. Federal ultra lower sulfur diesel.

2. California diesel fuel.

3. Reformulated fuels for off-road vehicles

6) The Sierra Club recommends that the following **General Public Education and Outreach** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. Educate public about fuel savings from properly inflated tires, regular tune-ups, and driving speed.

2. Celebrity volunteers for ozone alert announcements.

3. Air quality information with driver training.

4. Air quality public outreach.

7) The Sierra Club recommends that the following **Goods Movement** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. Designated truck routes.

2. Dedicate truck lanes.

3. Require short-haul trucks to use alternative fuels.

8) The Sierra Club recommends that the following **High Occupancy Vehicle (HOV) Lanes/Managed Lanes** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. We are against the Use of HOV lanes by trucks.

2. We are against allowing alternative fuel vehicles in HOV lanes if they are single occupancy vehicles (SOV).

3. More aggressive HOV enforcement.

4. We are against SOV access to HOV and transit stations.

5. HOV service on all freeways with increased access.

6. We are against managed lanes to accommodate some SOV in HOV lanes.

9) TCEQ needs an entire program dealing with high emitters and a suite of alternatives that people can choose to resolve the problem. The Sierra Club recommends that the following **High-Emitting Vehicle Detection and Programs** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. Focus on finding and penalizing extreme high emitters. The emphasis of this should be finding and replacing, not penalizing.

2. Rewards for reporting smoking or high emitting vehicles.

3. More enforcement of smoking vehicles; peace officers.

4. Roadside pullovers (portable inspection/maintenance measures).

5. High-emitting vehicle repair assistance.

6. Accelerated vehicle retirement program.

7. Dedicated funding for school bus replacement. This should require alternative fueled vehicles.

8. Buy vehicles older than model year 1975 to retire from use. This should include vehicles as new as 1985.

9. Expanded repair and replacement assistance program (near low income and non-low income).

10. Enforce smoking vehicle reports and require repairs.

11. New vehicle discounts for old vehicle trade-ins.

12. Low-interest financing for low income and or old vehicle trade-ins.

13. Transit passes/credit in exchange for old vehicle scrappage.

14. Ban sale of high-emitting vehicles.

15. Deny registration to vehicles with repeated emission failures.

16. Increase parking at transit centers or stops.

17. Provide parking at all major transit stations.

10) The Sierra Club recommends that the following **Parking Management** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. Preferential parking for HOV lanes users and ride sharers; rate reduction.

11) The HSC recommends that the following **Pricing Measures** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. We are against cheaper gasoline prices during evening hours.

2. We oppose encouraging having multiple cars.

3. State and local exemptions for pooling/transit subsidies.

4. No tolls for buses and vanpools.

12) The Sierra Club recommends that the following **Speed** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. Aggressive driving enforcement.

2. The Sierra Club supports leaving the speed limits as they are but implementing aggressive enforcement to bring down average speeds. There are far too many drivers who drive at 10-20 miles/hour over the posted speed limit.

13) The Sierra Club recommends that the following **Sustainable and Transit-Oriented Development** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. Manage location of new growth to limit additional sprawl.

2. Incentives for infill and redevelopment. However, this needs to be implemented so that those who presently live in the area are not forced to leave due to higher taxes. Don't make this CM benefit the well off and hurt those who are not.

3. Mixed use development ordinance and zones.

4. Encourage or require complementary uses in close proximity in all developments or development areas.

14) The Sierra Club recommends that the following **Traffic Flow Improvements** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. We are against freeway bottleneck improvements that add lanes instead of focus on transit.

2. Prohibit truck use of right lanes for loading on bus and bike routes.

3. Pedestrian mall route diversion.

15) TCEQ needs an entire program dealing with traffic management and a suite of alternatives that will be implemented to resolve the problem. The Sierra Club recommends that the following **Traffic Flow Improvements** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. Require two or more occupants per vehicles to enter designated congested activity centers during am and pm peak traffic periods.

2. Require two or more occupants per vehicle to enter designated congested activity centers all day.

3. Subsidize transit service.

4. More transit access near universities and airports.

5. Accelerate rail expansion.

6. Light Rail.

7. Commuter Rail.

8. High-speed rail.

9. We support the specific, localized, allowance of jitneys. This is not mentioned as an alternative.

10. We support putting Metro and other public buses on propane or other lower polluting fuels.

16) TCEQ needs an entire program dealing with traffic management and a suite of alternatives that will be implemented to resolve the problem. The Sierra Club recommends that the following **Transit** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. Subsidize transit service.

2. Implement seamless public transit, connectivity.

17) TCEQ needs an entire program dealing with traffic management and a suite of alternatives that will be implemented to resolve the problem. The Sierra Club recommends that the following **Travel Demand Management – Business Operations** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. We support a mandatory employer trip reduction program for all employers who employ 20 or more people. This is not mentioned as an alternative.

18) The Sierra Club recommends that the following **Travel Demand Management – Schools and Colleges** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. Restrict student drivers to high schools.

19) The HSC recommends that the following **Vehicle Engine Modifications** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. Engine software upgrade (DHV4) or low NOx software upgrade.

20) The HSC recommends that the following **Vehicle Idling** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. School bus idling Airborne Toxic Control Measure.

2. Statewide emissions testing.

21) The Sierra Club recommends that the following **Vehicle Inspection and Maintenance** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. Centralized IM-240 test with repairs done separately.

22) The Sierra Club recommends that the following **Vehicle Operations Management** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. Raise the driving age.

Non-Road Source Control Measures

1) The Sierra Club recommends that the following **Off-Road Source** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. Aircraft vapor recovery.

2. Use electric or cleaner technology auxiliary power units (APUs) for gate electrification.

3. Use electric or cleaner technology APUs for preconditioned air.

4. Federal ultra low sulfur diesel.

5. Ban equipment such as two-stroke engines.

6. Electrification of rail switching yards.

7. Use liquefied natural gas engines for locomotives. Also use compressed natural gas.

8. Selective catalytic reduction for locomotives.

Area Source Control Measures

The Sierra Club recommends that the following **Area Source** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. Manage livestock wastes by transporting them out of the HGB non-attainment area for management and or requiring the use of air pollution control systems.

2. Require the use of air pollution control systems at feedlots and animals waste lagoons.

3. Provide incentives for improved management techniques to reduce the frequency and quantity of pesticide applications.

4. Limit the allowable VOC content of pesticides. Identify lowest achievable limits through review of California and Ozone Transport Commission regulations.

5. Increase the stringency of existing control requirements for asphalt paving/roofing (30 TAC 115, Subchapter F, Division1).

6. Provide incentives to convert from cutback asphalt to low-emission emulsion asphalt and hot-mix asphalt.

7. Adopts South Coast Air Quality Management District content limit for emulsified asphalt (50% reduction).

8. Restrict or prohibit the use of VOC-based parking lot sealers.

9. Require the use of emission controls on cutback asphalt application equipment sued by commercial roofers, etc. Controls could include the use of close fitting lids and restrictions on operating temperatures and or require the use of afterburners on the kettles.

10. Increase stringency of existing surface coating VOC limits. Identify lowest achievable limits through review of California and Ozone Transport Commission regulations.

11. Eliminate or reduce the scope of the surface coating emission limitation exemptions (30 TAC 115.427).

12. Require the use of or provide incentives for using ozone-destroying catalyst coatings.

13. Consider VOC reactivity in establishing VOC coating content or requiring the use of air pollution controls.

14. Review existing list regulated sources (30 TAC 115, Subchapter E, Solvent-Using Processes, Division 2, Surface Coating Processes) and establish emission limits for those sources currently excluded.

15. Provide financial assistance for performing energy audits and or implementation of energy saving measures that reduce demand and emissions form electric generating units (EGUs) and or heating systems.

16. Revise building codes to require energy efficient designs and materials that reduce demand and emissions from EGUs and or heating systems. Measures could include more insulation, use of reflective glass, use or reflective paints, use of multi-paned glass, use of white or reflective roofs (International Energy Conservation Code – IECC).

17. Mandatory public building compliance with IECC.

18. Require that a certain percentage of power purchased for public facilities come from renewable or non-emitting sources.

19. Provide incentives for energy conservation measures such as timed lighting for parking lots, outdoor advertisements and buildings, occupancy sensors for office lighting, and for turning off computers.

20. Provide incentives for using energy efficient PC networks (shutdown of computers when not in use).

21. Prohibit or restrict the burning of leaves and yard clippings or require the application of emission controls.

22. Establish new consumer product VOC limits (California Air Resources Board – Cons 1 and 2).

23. Adopt South Coast Air Quality Management District (SCAQMD) Phase III VOC limits.

24. Adopt CARB rules regarding mid-term and or long-term limits on VOC content of consumer products.

25. Provide incentives for the substitution on non VOC based cleaners for VOC based cleaners.

26. Require the use of or provide incentives for the reformulation of VOC bearing commercial products such as paints, cleaners, etc.

27. Limit automotive windshield washer fluid to less than the 23.5% VOC currently allow by 30 TAC 115, Subchapter G, Division 1.

28. Adopt Ozone Transport Commission Model Rule with additional product coverage and more stringent VOC limits.

29. Increase stringency of existing control requirements in 30 TAC 115, Subchapter E, Division 1. This could include measures requiring the use of low VOC solvents for cold cleaning operations or replacement with wipe cleaning.

30. Put contingency rules in 30 TAC 115, Subchapter F, Division 4 into effect.

31. Increase solvent recovery requirement in 30 TAC 115.552(a) from 85% to 90% or greater. Contingency rules must be put into effect first.

32. Lower or eliminate the 2,000 gallon per year use exemption in 30 TAC 115.557. Contingency rules must be put into effect first.

33. Establish emission control requirements for food product manufacturing and processing operations.

34. Require the use of catalytic oxidizers or equivalent controls on chain drive char-broilers.

35. Establish limits for the VOC content of charcoal lighter fluid.

36. Replace fuel dispensing hoses to reduce permeation.

37. Extend Stage I vapor recovery system requirements to counties outside of the HGB non-attainment area.

38. Eliminate or reduce the Stage I vapor recovery exemptions in 30 TAC 115.227.

39. Adopt CARB enhanced vapor recovery Stage I requirements (98% control) in HGB non-attainment area and potentially surrounding counties.

40. Extend the transport vehicle leak test provisions of 30 TAC 115, Subchapter C, Division 3, to counties outside of the HGB non-attainment area.

41. Eliminate or reduce the transport vehicle leak test exemptions in 30 TAC 115.237.

42. Extend Stage II vapor recovery system requirements to counties outside of the HGB non-attainment area.

43. Eliminate or reduce the Stage II vapor recovery exemptions in 30 TAC 115.247.

44. Implement a "stop at the click" awareness program to discourage overfilling of vehicles during refueling.

45. Implement an off-road equipment fuel tank program.

46. Develop and implement emission control measures for hair and nail salons.

47. Extend municipal landfill emission control requirements to counties outside of HGB non-attainment area.

48. Regulate emissions from the excavation of landfills.

49. Require the use of co-composting operations to limit VOC emissions. Includes the mixing of bio-solids or manure with bulking agents.

50. Establish emission limits or control requirements for glycol dehydration units (oil and gas production). Emission limits could build upon emission limits established by 40 CFR 63, Subpart HH, to control hazardous air pollutants (HSP) emissions from glycol dehydration units.

51. Require implementation of instrument based fugitive emissions monitoring and leak repair programs at oil and gas production facilities.

52. Establish requirements or provide incentives for the use of NOx emission reduction software.

53. Provide additional incentives for the use of low-emitting, distributed power generating systems such as wind, solar, micro-turbines, fuel cells, etc., reducing the demand and associated emissions from EGUs.

54. Provide additional incentives for the capture of landfill gas for use in combustion turbines to generate electricity, reducing the demand and associated emissions from EGUs.

55. Explore technologies and opportunities to reduce transmission in losses with resulting reductions in demand and associated emissions from EGUs.

56. Establish more stringent VOC content limitations and or emission control requirements for rotogravure and flexographic printing operations than specified in 30 TAC 115, Subchapter E, Division 3.

57. Eliminate or reduce the rotogravure and flexographic printing emission control exemptions in 30 TAC 115.437.

58. Eliminate or reduce the offset lithographic printing emission control exemptions in 30 TAC 115.437.

59. Partner with local governments in efforts to reduce urban heat island effects and thus reduce EGU demand and associated emissions.

60. Investigate opportunities to improve local policies toward energy efficiency.

61. Implement efficiency based natural gas rates to reward conservation.

62. Provide incentives for companies to buy energy efficient products.

63. Provide incentives for companies and individual consumers to replace older, energy inefficient appliances with new Energy Star products.

64. Provide incentives for companies and individual consumers to replace energy inefficient heating and air conditioning systems with new, more efficient units.

65. Implement public awareness campaigns for energy efficiency.

66. Provide incentives for cities and counties to promote and encourage development patterns that reduce emissions of air pollutants.

67. Implement a ban on new developments that would result in any increase in air pollutants.

68. Establish mitigation fees for land development and other projects that result in additional area source emissions that are proportional to the anticipated increase in NOx and or VOC emissions.

69. Promote or require the planting trees (reduce EGU demand and emissions) and the use of plants that require less maintenance (reduce emissions from landscape maintenance equipment).

70. Require mitigation of trees removed during development.

71. Provide financial incentives to developers and homeowners to use or convert to plants that require less maintenance (reduced emissions from landscape maintenance equipment).

72. Establish emission control requirements for publicly owner wastewater treatment facilities.

73. Establish requirements and or provide incentives for the replacement of pilot lights on gas stoves with electronic ignitions.

74. Establish requirements and or provide incentives for the replacement of hot water heater pilot ignitions with electronic ignitions.

75. Establish requirements and or provide incentives for the use of low NOx hot water heaters.

76. Establish requirements and or provide incentives for the replacement of hot water heaters with on-demand heat exchange systems.

77. Prohibit or restrict the sale and use of wood burning fireplaces and wood burning stoves in the HGB non-attainment area.

78. Establish requirements and or provide incentives for the replacement of residential combustion sources with lower emitting sources (replacing natural gas fired units with electric units, for example).

Point Source Control Measures

The Sierra Club recommends that the following **Point Source** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. Eliminate NOx MECT program and revert to source-by source emission limitations with limits set equal to Lowest Achievable Emission Rate technology or other.

2. Establish source by source emission limits (not cap and trade) on HRVOC and or other VOCs for sources located outside of the HGB non-attainment area.

3. Eliminate HRVOC cap and trade program and control emissions exclusively through source by source emission limitations in the HGB non-attainment area.

4. Revise or eliminate some or all exemptions (30 TAC 117.203) for NOx MECT applicability, including temporary sources (such as engines in test cells), sources in limited use applications (exemptions for emergency generators and diesel engines installed prior to October 1, 2001), heat treat and reheat furnaces rated less than 20 MMBtu/hr, incinerators rated less than 40 MMBtu/hr, boilers and process heaters rated 2 MMBtu/hr or less, dryers and ovens, chemical processing gas turbines and flares.

5. Extend NOx MECT (Mass Emissions Cap & Trade) program to stationary sources that are currently not subject to program requirements (facilities where no Emission Specification for Attainment Demonstration has been established).

6. Extend NOx Eliminate the distinction between major and small sources, applying the Emission Specifications for Attainment Demonstration found in 30 TAC 117.206 to all sources regardless of site-wide potential to emit.

7. Eliminate the exemption for sources with uncontrolled emissions at design capacity of less than 10 tons/year.

8. Provide additional financial incentive for reducing emissions by increasing the annual fee paid on NOx emissions.

9. Provide financial incentives for demand side management.

10. Provide additional financial incentives for reducing emissions by increasing the annual fee paid on NOx emissions.

11. Include engines located at EGUs in NOx MECT program.

12. Eliminate NOx MECT program and revert to source-by-source emission limitations with limits set equal to Lowest Achievable Emission Rate technology or other.

13. Provide financial incentives for investment in lower polluting or non polluting power generation technologies.

14. Extend NOx MECT program to combustion sources located outside of the HGB non-attainment areas. Inclusion could be limited to larger, more numerous industrial sources (industrial, commercial, institutional boilers, process heaters, large engineers, large turbines, smelter furnaces, cement and brick kilns, etc.) or cold include the same source categories covered by the HGB SIP.

15. Implement separate NOx cap and trade program for sources located outside of the HGB non-attainment area.

16. Lower NOx MECT cap by reallocating allowances based on lower Emission Specifications for Attainment Demonstration (1999 SIP values or other).

17. Lower NOx MECT cap reallocating allowances through across-the-board reductions.

18. Extend NOx MECT program to include non-stationary engines.

19. Extend NOx MECT program to EGUs outside of the HGB non-attainment area.

20. Implement separate NOx cap and trade program for sources outside of the HGB non-attainment area.

21. Expand applicability of the HRVOC cap and trade program beyond flares, process vents, cooling towers and process fugitive emissions.

22. Extend current HRVOC cap and trade program to other VOCs, trading emissions based on reactivity.

23. Expand application of cap and trade concept to others sources of VOCs storage tanks, loading racks, wastewater treatment operations, barge/ship loading operations.

24. Eliminate the HRVOC cap and trade exemption for sources with potential emissions of less than 10 tons/year.

25. Revoke the HRVOC cap and trade exemption for sources located in the HGB non-attainment are outside of Harris County.

26. Extend HRVOC cap and trade program to sources located outside of the HGB non-attainment area.

27. Implement separate HRVOC or VOC cap and trade program for sources located outside of the HGB non-attainment area.

28. Lower HRVOC cap. Reallocate allowances using existing allocation procedures but lower annual emission caps.

29. Extend 1,200 lb/hr HRVOC emission limit to sources located outside of the HGB non-attainment area.

30. Implement HRVOC program type monitoring requirements for other VOC emissions from flares, cooling towers, and or process vents.

31. Expand HRVOC fugitive monitoring requirements to other VOCs.

32. Expand applicability of the industrial wastewater regulations beyond the list of affected source categories in 30 TAC 115.140(1).

33. Make existing industrial wastewater regulations more stringent (revise VOC reduction requirement form 90% to 95%).

34. Provide additional financial incentive for reducing emissions by increasing the annual fee paid on VOC emissions.

35. Develop and implement more stringent guidance on BACT requirements for NSR authorization issues to source in the HGB non-attainment area and potentially source outside the HGB non-attainment area.

36. Manage composting operations. Potential control measures could include registration of composting, chipping, and grinding facilities; establish holding and or processing time requirements for green waste; and establish VOC emission control requirements.

37. Control emissions from airport terminals.

38. Control Emissions through facility energy conservation programs.

39. Control emission from aircraft maintenance operations.

40. Revise control requirements for bakeries in 30 TAC 115.122 from 80% to 90% or greater.

41. Lower or eliminate the 25 tons/year threshold for requiring controls for bakeries.

42. Implement housekeeping practices in breweries to minimize spillage during filling, keg cleaning and waste beer processing.

43. Develop and implement brewery source specific wastewater treatment requirements. Alternatively, brewery sources would be subject to industrial wastewater regulations.

44. Establish VOC emission limitation from brewery fermentation tanks.

45. Require the control of emissions from dryers and heaters for cutback asphalt processes.

46. Adopt emission limits based on retrofit BACT level of 0.07-0.1 lb/MMBtu.

47. Adopt 90% reduction from uncontrolled emission for EGUs.

48. Make requirements of 30 TAC 115, Subchapter D, Division 2 (equipment leaks) more stringent (similar to HRVOC monitoring).

49. Lower leak detection limits for equipment leaks.

50. Require instrument monitoring of connectors for equipment leaks.

51. Require that existing flares be retrofitted to conform to 40 CFR 60.18 design standards.

52. Review various California air quality district rules and regulations to identify additional emission reduction opportunities.

53. Revise control requirements in 30 TAC 115.212 for VOC loading operations from 90% to 95% or greater.

54. Require the use of low volume quick disconnects fro railcar and tanker truck loading and unloading operations.

55. Require the implementation of work practices in metal production to minimize VOC in furnace charge material or require use of gas fired pre-heater where the flame directly contacts the scrap charge.

56. Limit repair, maintenance, cleaning and other non-production related activities on ozone alert days.

57. Restrict the testing of emergency generators and other support equipment on ozone alert days.

58. Revise process vent control requirements in 30 TAC 115.122(a)(1) to require at least 95% control.

59) Lower allowable VOC content of surface coatings in 30 TAC 115, Subchapter E, Division 2.

60. For flares the Sierra Club recommends:

1) Rigorously and consistently enforce existing flare operation requirements.

2) Expand and accelerate research on factors that affect flare burning efficiency, alternatives to flares, and flare monitoring.

3) Revise TCEQ policies/guidelines for estimating flare emissions for rulemaking, permitting, enforcement, reporting, and planning activities to take into account the effects of steam and crosswinds.

4) Require more extensive monitoring/reporting of flare emissions.

5) Increase flare gas recovery system use or other technologies, like enclosed ground flares or thermal oxidizers, to control emissions.

6) Use elevated flares only in emergencies and start-ups/shutdowns of equipment.

Other Source Control Measures

The Sierra Club recommends that the following **Other Source** CMs be studied in a detailed qualitative and quantitative assessment, analysis, and evaluation and rule effectiveness analysis.

1. Ban leaf blowers.

2. Keep freeways out of or near parks and away from schools and neighborhoods (Highway 90 at I-10/I-610, going through Herman Brown Park and between Furr High School and Houston Community College, is a good example of this problem).

3. Do not allow highways to bypass the National Environmental Policy Act (NEPA) since the Act is the only requirement for citizen participation for most transportation projects and the only things that requires that a hard look be taken and that project data be revealed to the public for its review and comment regarding air quality.

The Sierra Club appreciates this opportunity to comment. Thank you.

Sincerely,

Brandt Mannchen
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March 31, 2008

Ms. Susanna Hildebrand
Air Quality Division Director
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Dear Susanna Hildebrand,

Enclosed are additional comments from the Houston Regional Group and Lone Star Chapter of the Sierra Club (Sierra Club) regarding our initial input into the Texas Commission on Environmental Quality's (TCEQ) Houston-Galveston-Brazoria (HGB) Eight-Hour Ozone State Implementation Plan (SIP) planning process.

1) The presentation on March 25, 2008, about the planning process, could have been made less technical and more interesting. Most people are not interested in learning about how the complicated air quality grid model works. Some discussion of the modeling is important. But to talk more than 50% of the time about modeling is not the best used of time. If TCEQ is going to go into this much detail it should state clearly why the modeling has failed in the past, what has been done to make it operate better, and what makes TCEQ believe this model will succeed this time.

What would have made more sense would be to talk about the emissions inventory and its accuracy, the results of the TexAQII and its applicability to the SIP planning process, what control technologies are available, and what TCEQ investigations have shown regarding where emissions come from and industry compliance. It would also have made sense to discuss some of the control measures (strategies) so people know what they are. The Sierra Club believes TCEQ lost a golden opportunity to conduct environmental education for the public regarding the SIP planning process and air pollution.

2) The TCEQ should let the public know how many more ozone, nitrogen oxides (NOx), volatile organic compounds (VOC), and other ambient monitors are needed so that better modeling can be done and where these monitors should be located. The presentation showed that except for most of Harris County, most other counties either have no monitors (Fort Bend and Waller Counties) or very few (Montgomery, Liberty, Chambers, Galveston, and Brazoria). It is obvious, for instance, that additional monitors in rural areas are needed for transport and

biogenic emissions information. Discussion about these issues in the presentation would have been helpful for public environmental education.

3) The presentation about control strategy planning was not imaginative and helpful to the public. What was requested was highly detailed, technical, and economic information to determine the feasibility of air pollution control measures. With the exception of industry, very few interests and certainly not most the general public, has this information or is capable of developing this information. To the Sierra Club this presentation was intimidating to people and the message was: air quality control is too technical for you, the public, so you better leave it to us to decide.

An opportunity was missed to talk about air pollution control equipment and techniques, what has proven to work, what has been implemented in the past, what equipment has cost, what best available control technology and lowest achievable emissions rate air pollution control technology is, where it has been implemented, and what the results have been.

In our view the presentation on control strategy planning prevents the public from participating and certainly does not bring the information down to a level that most people can understand. The Sierra Club urges the TCEQ to make its presentations, not pro forma, but understandable and an opportunity for environmental education for the public. There are people within TCEQ (small business assistance employees, for instance) who know how to make technical information understandable to the public. The Sierra Club urges that TCEQ use these employees or others who have a track record of making technical information understandable to the public, for the SIP planning process.

4) The Sierra Club urges TCEQ, especially since it appears there will be a lot of time to reach attainment (perhaps 2019, which is 12 years) to conduct research on the amount of air pollution that different vehicles emit during actual, in motion, trips. This information is crucial for the improvement of MOBILE6 and its variants, would make the grid modeling immeasurably more precise, and would make prediction of ozone attainment more accurate. If TCEQ decides not to conduct this research then it should attempt to get others to do this or use existing information to more accurately depict the typical driving trip that MOBILE6 depends on for emissions estimation and mobile source inventories.

5) The Sierra Club finds it remarkable that during the entire presentation the massive inaccuracy of the emissions inventory was not mentioned. The emissions inventory determines the entire ballgame, as we discussed with Dick Karp after the meeting. The accuracy or inaccuracy of the emissions inventory is the crucial question that must be answered when using the grid model. It is obvious that one of the major reasons why the HGB area has never come close to achieving the ozone standard is that TCEQ and its predecessor agencies have consistently underestimated the emissions that industry and other sources emit

into the air. TCEQ must acknowledge its mistakes to the public, which are owners of TCEQ, and state what it will do so these mistakes are not repeated. That is one of the reasons that the Sierra Club suggested in our first letter that an additional 20-30% ozone precursor emission reduction be added to any modeling percent reduction outcome determined necessary for attainment.

6) The new ozone standard (0.075 ppm eight hour standard) should be the goal for attainment for the modeling that is conducted. The Sierra Club understands that the Environmental Protection Agency will develop a schedule for implementation of the ozone standard. However, since the new ozone standard has been determined and is real we need to aim for what the real goal is: clean air that is healthy to breath. Meeting the 0.08 ppm eight hour ozone standard will not achieve this clean air goal. The 0.08 ppm eight hour ozone standard is now obsolete and we must pursue the more protective clean air goal (0.075 ppm ozone eight hour standard) that has been approved.

The Sierra Club appreciates this opportunity to comment. Thank you.

Sincerely,

Brandt Mannchen
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