

AGENDA ITEM 21**Hear presentation on proposed emission reduction strategies for the Clean Air Action Plan.**

Judy Metzger introduced Cathy Stephens, the Air Quality Program Manager at CAMPO, Deanna Altenhoff, the Executive Director of Clean Air Force, and Bill Gill from the Capital Area Planning Council (CAPCO). All three addressed the court with an update on the Early Action Compact which is essentially 'part two' of the Regional Air Quality Initiative. Bob Wierzowiecki, from the Texas Commission on Environmental Quality (TCEQ), and Captain Danny Knauth, of the Traffic Law Enforcement Vehicle Inspection and Emissions division of the Texas Department of Public Safety, were both in attendance as resources on this presentation.

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DRAFT
EACTF RECOMMENDED EMISSION REDUCTION MEASURES

For incorporation into the Clean Air Action Plan

October 15, 2003

INTRODUCTION

This document lists emission reduction measures recommended by the EAC Task Force (EACTF) for inclusion in the Austin/Round Rock MSA Clean Air Action Plan (CAAP). While some measures apply to multiple counties, others vary by jurisdiction. During the stakeholder process these measures came to the forefront. They are effective in other nonattainment areas and local models show them to reduce emissions cost effectively.

The measures form two categories, summarized in separate tables. (Appendixes A and B provide measure details.) Table 1 covers measures recommended as requirements in all MSA counties (except where noted) and implemented by state rule. Table 2 contains measures recommended for implementation by local regulation, agreement or voluntary arrangement. Jurisdictions may select from Table 2 the measures that will complete their "fair share" obligation to emission reductions. Non-signatory jurisdictions, public sector agencies and businesses may also participate in the Table 2 measures.

The MSA now has in place, or has planned for, several measures not included in the baseline emissions inventory (1999). The CAAP intends to account for these anticipated reductions. Implementation requires no additional planning or funding. The measures include:

- The March 2002 O₃ Flex Agreement, implemented throughout the MSA, with estimated NO_x reductions of 6.7 tpd and VOC reductions of 2.3 tpd;
- The early introduction (May 2003) and continued use of Ultra Low Sulfur Gasoline throughout the MSA;
- The ALCOA Agreement, expected to reduce NO_x emissions 90% by 2007; and
- State and federal measures, such as Tier 2 fuel and vehicle emissions standards, scheduled to come on line during the implementation period.

Table 1 – EACTF Recommended Measures Requiring State Regulations or Actions

A1	Inspection and Maintenance (I&M)	Travis, Hays and Williamson	Inspection stations & gasoline vehicle owners	\$31,608,000	\$27,737	2.74	3.64
A2	Idling Restrictions on Heavy-Duty Diesels	MSA*	Owners/operators heavy duty diesel vehicles	TBD	TBD	0.28	TBD
A3	Commute Emission Reduction Program	MSA	Major employers, employees	TBD	TBD	0.54	0.60
A4	Commercial Lawn and Garden Permitting	MSA	Lawn and Garden Industry	\$115,500	TBD	0.262 NOx equivalent	
	Commercial Lawn and Garden Low Emission Gas Cans	MSA	Lawn and Garden Industry	\$84,777	\$368	0	0.63
A5	Stage I Vapor Recovery Requirement Change	MSA*	Some gasoline retailers	\$1,199,668	\$861	0	3.82
A6	Low Emission Gas Cans (Residential)	MSA*	Purchasers of gas cans	\$982,000	\$1,899	0	1.42
A7	Architectural/Industrial Coatings Controls	MSA	manufacturers/ end users	\$2,654,080	\$6,380	0	1.60
A8	Degreasing Controls	MSA	Facility owner/operators	Savings TBD	<\$3,060>	0	6.28
A9	Autobody Refinishing Controls	MSA	Facility owner/operators	\$91,728	\$1,260	0	0.28
A10	Cut Back Asphalt	MSA	TxDOT, County, City and some pavers	TBD	TBD	0	TBD
A11	Low Reid Vapor Gas	MSA*	Purchasers of gasoline	\$5,384,793	\$16,756	0	1.47
A12	Oil and Gas Compressors	MSA*	Oil & Gas Industry	TBD	TBD	TBD	TBD
A13	BACT and Offsets for New or Modified Point Sources	MSA	Point source operators	TBD	TBD	TBD	TBD
A14	Petroleum Dry Cleaning	MSA	Facility owner/operators	\$1,961,720	\$7,118	0	1.06
A15	Texas Emission Reduction Program (TERP)	MSA	Diesel equipment and vehicle owners/operators	TBD	\$13,000 max	TBD	TBD
A16	Power Plant Reductions	MSA	Austin Energy, LCRA, UT	TBD	TBD	TBD	TBD
	Total (Does not include TBD)			\$44,082,266		3.822	20.80

*The Austin/Round Rock MSA is encouraging TCEQ to expand implementation of these emission reduction measures to the eastern half of the state. This will address MSA concerns about intrastate transport, high ozone background levels and practicality of implementation.

**Table 2 – EACTF Recommended Measures
Requiring Local Regulations or Agreements and Including Voluntary Measures***

Emission Reduction Measure		Implementation Method			Reduces NOx	Reduces VOC	Effectiveness Rating		
		Regulation	Agreement	Voluntary			Low	Med.	High
B1	Texas Emission Reduction Program (TERP)			X	X				X
B2	Texas Low Emission Diesel (TxLED) for Fleets		X	X	X				X
B3	Transportation Emission Reduction Measures (TERMs)		X	X	X	X		X	
B4	Access Management	X	X		X	X		X	
B5	Alternative Commute Infrastructure Requirements	X	X		X	X		X	
B6	Drive-Through Facilities on Ozone Action Days	X	X	X	X	X	X		
B7	Expedited permitting for mixed use, transit oriented or in-fill development.	X	X		X	X		X	
B8	Use of electric or alternative fuels for airport GSE		X	X	X			X	
B9	ABIA Airside incentives for GSE use reduction		X	X	X	X			X
B10	Integrate alternative fuels into City's aviation fleet			X	X	X		X	
B11	Operate alternative fueled ABIA surface parking lot shuttle buses			X	X	X		X	
B12	Use existing ABIA alternative fuel infrastructure for off-site parking shuttle buses				X	X		X	
B13	Low VOC Striping Material	X				X		X	
B14	Landfill Controls	X				X	X		
B15	Open Burning Restrictions	X			X	X	X		
B16	Tree Planting	X		X	X		X		
B17	Extend energy efficiency requirements beyond SB5 and SB7.	X			X		X		
B18	Shift the electric load profile		X	X	X		X		
B19	Environmental dispatch of power plants		X	X	X		X		
B20	Clean Fuel Incentives			X	X	X		X	
B21	Low Emission Vehicles			X	X	X			X
B22	Adopt-a-School-Bus Program			X	X	X			X
B23	Police Department Ticketing			X	X	X		X	

Emission Reduction Measure		Implementation Method			Reduces NOx	Reduces VOC	Effectiveness Rating		
		Regulation	Agreement	Voluntary			Low	Med.	High
B24	EPA Smart Way Transport Program			X	X	X	X		
B25	Business Evaluation of Fleet Usage, Including Operations and Right Sizing			X	X	X	X		
B26	Parking Incentives for Alt Fuel or SULEV vehicles			X	X	X	X		
B27	Commute Solutions Programs			X	X	X	X		
B28	Direct Deposit			X	X	X	X		
B29	e-Government and/or Available Locations			X	X	X	X		
B30	Voluntary use of APUs for locomotives operating in Central Texas		X	X	X			X	
B31	Fueling of Vehicles in Evening			X		X	X		
B32	Urban Heat Island/Cool Cities Program	X	X	X	X	X		X	
B33	Resource Conservation	X		X	X	X			X
B34	Increase investments by Central Texas electric utility providers in energy demand management programs		X	X	X				X
B35	Alter production processes and fuel choices		X	X	X			X	
B36	Contract provisions addressing construction related emissions on high ozone days		X		X	X		X	
B37	Ensure emission reductions in SEPs, BEPS and similar agreements		X		X	X		X	
B38	Ozone Action Day Education Program			X	X	X		X	
B39	Ozone Action Day Response Program			X	X	X			X

*Signatory jurisdictions should select Table 2 measures that are in addition to those included in their O₃ Flex Agreement commitment.

APPENDIX A
Description of Emission Reduction Measures in Table 1

A1. Inspection and Maintenance (I&M)

DESCRIPTION: Require vehicle emission testing and repair for all subject gasoline vehicles 2 to 24 years old and registered in Hays, Travis or Williamson counties. Tests will be conducted at all safety inspection stations. Failed vehicles have 15 days to repair the vehicle at any repair facility and get a free retest. The emission test for model year 1996 and newer vehicles will be the On-Board Diagnostic test. The emission test for model year 1995 and older vehicles will be the two speed idle test. Remote sensing will be used to identify high emitters in Hays, Travis, Williamson and contiguous counties. Identified vehicles will be required to show passing emission test results in order to renew vehicle registration. Vehicles used by students at public universities in the 3 counties but registered elsewhere will be required to participate in the program in order to receive parking privileges. A Low Income Repair Assistance Program (LIRAP) will be included.

IMPLEMENTATION: Preferably state rule with program implemented by TCEQ and DPS.

- **REGIONAL COSTS:** TBD Program is designed to keep emissions test fees lower than those in DFW and Houston (\$27.00 fee +12.50 safety inspection)

EXPECTED POLLUTION REDUCTIONS: Estimated 2.47 tpd NOx and 3.64 tpd VOC

A2. Idling Restrictions on Heavy-Duty Diesels

DESCRIPTION: State law to restrict idling of gasoline and diesel-powered engines in heavy-duty motor vehicles greater than 8500 gross vehicle weight to five consecutive minutes when the vehicle is not in motion, with certain exceptions. Applies during ozone season only. Enforceability may be problematic, but emission reductions could be significant.

IMPLEMENTATION: Preferably state rule, developed by TCEQ, applicable in all five counties.

*EACTF has suggested TCEQ consider implementing the measure in the eastern half of the state

REGIONAL COSTS: TBD

EXPECTED POLLUTION REDUCTIONS: Estimated 0.28 tpd NOx

A3. Commute Emission Reduction Program

DESCRIPTION: Require every existing or future employer with 100 or more employees per location to implement a commute emission reduction program that will reduce commute emission equivalent by 10%. Awards could be provided for those who exceed requirements. A similar voluntary program called Clean Air Partners is underway. In addition, the existing Commute Solutions Program provides tools and support for program implementation.

IMPLEMENTATION: Preferably state rule, developed by TCEQ, applicable in all five counties.

REGIONAL COSTS: TBD

EXPECTED POLLUTION REDUCTIONS: Estimated 0.54 tpd NOx and 0.60 tpd VOC

A4. Commercial Lawn and Garden Permitting

DESCRIPTION: This control measure is the industry-desired alternative to previously proposed control measures. Commercial Lawn and Garden firms will be required to submit an emissions reduction plan documenting 20% or greater emissions reduction from the default emissions inventory for their equipment. TCEQ has the necessary software and emissions factors to perform these calculations. Emissions reductions associated with alternative fueled vehicles will be accepted as a reduction against their emissions inventory. An approved emissions reduction plan results in the company being "permitted" to operate in the Central Texas area.

This measure affects about 1,000 companies in the area. For purposes of compliance, applicability (operations >\$5,000/year) will be patterned after and compared to the existing Lawn and Garden Service Tax. Decals (permit) will be affixed to each piece of permitted equipment. Companies will be encouraged to begin the equipment upgrading now to achieve immediate emissions reductions. Actual permitting begins in 2005, giving industry a chance to spread cost of compliance over several years.

IMPLEMENTATION: Preferably state rule, developed by TCEQ, applicable in all five counties.

REGIONAL COSTS: Preliminary cost estimates assume the industry would get these reductions by purchasing low emission gas cans. This assumes each business would spend about \$115 on these cans, for a total of \$115,500. Further refinement of these cost estimates is expected.

EXPECTED POLLUTION REDUCTIONS: Currently, the industry creates about 1.31 tpd of NOx. This measure is expected to reduce 20%, or 0.262 tpd, of those NOx emissions.

A5. Stage I Vapor Recovery Requirement Change

DESCRIPTION: Stage I vapor recover is already in place in the Austin region for service stations that pump over 125,000 gallons of fuel per month. This measure would require Stage I on service stations pumping 25,000 gallons per month, thus increasing the number of service stations using the system. Stage I reduces VOC emissions during fuel transfer from the tanker truck to the underground storage tank through a special vapor recovery system.

IMPLEMENTATION: Preferably state rule, developed by TCEQ, applicable in all five counties.

*EACTF has recommended that TCEQ implement the measure in the eastern half of the state for all service stations pumping 50,000 gallons/month or more.

REGIONAL COSTS: \$591,061 per year assuming participation in all five counties.

EXPECTED POLLUTION REDUCTIONS: 2.42 tpd VOC reductions (1.21 tpd NOx equivalent) assuming participation in all five counties.

A6. Low Emission Gas Cans

DESCRIPTION: Mandate that all new gas containers purchased in the region meet spill-proof, low emission standards.

IMPLEMENTATION: Preferably state rule, developed by TCEQ, applicable in all five counties.

*EACTF has recommended that TCEQ implement the measure in the eastern half of the state.

REGIONAL COSTS: The incremental cost of these cans is approximately \$11.00. Further evaluation of the total regional costs is needed, although costs have been prepared for the lawn and garden industry only (see Lawn and Garden Permitting measure).

EXPECTED POLLUTION REDUCTIONS: Initial estimates for only the Lawn and Garden industry are 0.28 TPD NOx equivalent (includes some VOC reductions). Regional implementation will provide additional reductions.

A7. Architectural and Industrial Coatings Controls

DESCRIPTION: Adopt the California state rule for Architectural and Industrial Surface Coatings. This regulates the use of certain surface coatings (e.g., paints) applied by industry, contractors and homeowners to coat houses, buildings, highway surfaces and industrial equipment. Because users of these coatings are small and widespread, requiring the use of add-on control devices is technically and economically infeasible. Reductions in VOC emissions must therefore be obtained through product reformulation.

IMPLEMENTATION: Request that TCEQ adopt the California state rule for the Austin/Round Rock MSA.

REGIONAL COSTS: \$2,654,080/yr

EXPECTED POLLUTION REDUCTIONS: 1.60 tons VOC per day

A8. Degreasing Controls

DESCRIPTION: Degreasing operations are a common source of VOC emissions. Degreasing uses a solvent to remove grease, oil, or dirt from the surface of a part prior to surface coating or welding. In cold cleaning, the part is dipped into or sprayed with solvent. Sources that commonly have cold cleaning degreasers include auto repair shops, autobody shops, and industries. This measure adopts California degreasing regulations lowering VOC concentrations in cold cleaning solvents. Lower VOC content results in cost savings. TCEQ rules that already apply address housekeeping measures.

IMPLEMENTATION: Request that TCEQ extend state rule, modified to make compliant with California standards, to the Austin/Round Rock MSA.

REGIONAL COSTS: Savings TBD

EXPECTED POLLUTION REDUCTIONS: 6.28 tons of VOC per day

A9. Autobody Refinishing Controls

DESCRIPTION: Adopt California Autobody Refinishing Control standards to reduce VOC emissions from this source by 45%. Rule requires lowering the VOC content of the products used, improving the application technique so that less coating is used and controlling the use of clean-up solvents (proper handling of gun cleaning and clean-up solvents). Emissions occur at all three process stages (surface preparation, painting and equipment cleaning) due to evaporation of solvents in the primers, paints and other coatings, and in the cleaning solutions.

IMPLEMENTATION: Preferably state rule, developed by TCEQ, applicable in all five counties.

REGIONAL COSTS: \$91,728/yr

EXPECTED POLLUTION REDUCTIONS: 0.28 tons of VOC per day

A10. Cut Back Asphalt

DESCRIPTION: This measure prohibits the sale/transport of "conventional cut-back asphalt" in the Austin/Round Rock MSA. Conventional cut-back asphalt releases VOC for over a year after application. Also, encourage the use of low-emission emulsion asphalt and hot-mix asphalt by reducing VOC upper limit in the definition of "Exempt Cut-back Asphalt" as lower emission asphalt becomes available.

IMPLEMENTATION: Preferably state rule, developed by TCEQ, applicable in all five counties.

REGIONAL COSTS: TBD

EXPECTED POLLUTION REDUCTIONS: TBD

A11. Low Reid Vapor Gasoline

DESCRIPTION: Would lower the Reid vapor pressure requirement from 7.8 to 7.0 in the MSA during ozone season (daylight savings time), significantly reducing locally generated VOC.

IMPLEMENTATION: Preferably state rule, developed by TCEQ, applicable in all 5 counties.

REGIONAL COSTS: \$5.4 million/year.

EXPECTED POLLUTION REDUCTIONS: 1.47 tpd VOC reductions (1.47 tpd NOx equivalent) in the MSA assuming year-round fuel use.

A12. Oil and Gas Compressors

DESCRIPTION: Require installation of air-fuel ratio controller and three-way catalysts on small (<500hp) rich burn oil and gas well compressors that are currently uncontrolled by state rules.

IMPLEMENTATION: Preferably state rule, developed by the GLO, applicable in all five counties.

REGIONAL COSTS: TBD

EXPECTED POLLUTION REDUCTIONS: TBD

A13. Point Source Controls

DESCRIPTION: Require Best Available Control Technology (BACT) and 1:1 offsets for all new or modified point sources that emit 100 tons per year or more.

IMPLEMENTATION: Preferably state rule, developed by TCEQ, applicable in all five counties.

REGIONAL COSTS: TBD

EXPECTED POLLUTION REDUCTIONS: TBD

A14. Petroleum Dry Cleaning Systems

DESCRIPTION: Adopt the Texas state rule for Petroleum Dry Cleaning Systems used in DFW and Houston. This regulates the operation of a dry cleaning facility by complying with dryer, filtration system, and fugitive emission requirements. An 85% reduction in VOC emissions will be obtained through these emissions controls.

IMPLEMENTATION: Request that TCEQ extend state rule to Austin/Round Rock MSA.

REGIONAL COSTS: \$1,961,729 per year

EXPECTED POLLUTION REDUCTIONS: 1.06 tons of VOC per day

A15. Texas Emission Reduction Program (TERP)

DESCRIPTION: A state funded grant program to reduce diesel emissions and encourage technological innovations. Available grants cover the incremental cost of cleaner diesel on-road and off-road engines and equipment, cleaner fuel needed for the equipment and clean fuel infrastructure. The eligibility threshold is \$13,000 per ton of NOx reduced.

IMPLEMENTATION: Local vehicle and equipment owners apply for TERP funding, TCEQ selects projects and awards funding

REGIONAL COSTS: TBD, eligible projects must meet maximum \$13,000 per ton NOx reduced

EXPECTED POLLUTION REDUCTIONS: TBD

A16. Power Plant Reductions

DESCRIPTION: Reduce NOx emissions from power plants as follows:

Austin Energy - AE would accept a cap of 1,500 tons per year on total NOx emissions from all of its units combined (Decker, Holly and Sand Hill).

The cap would be in place at least through 2012. As AE brings new units on line, additional NOx emission reductions at existing units would be made in order to comply with the cap. AE will achieve this cap through a combination of NOx reduction technologies at their existing plants, retirement of older generating units, increased utilization of renewable energy and energy efficiency.

LCRA - LCRA is considering taking a cap on the emissions from all of its plants in the 5-county area. The final level of this cap is yet to be defined, but would be no greater than current emissions. LCRA would likely follow the precedent it set at the Lost Pines Power Park and offset NOx emissions from any new power plant it built in the 5 counties. The Fayette Power Project (co-owned with Austin Energy) is covered by a flexible permit that requires interim NOx emission caps by 2005 and a final NOx cap by 2012. Early performance data on controls installed at one unit show actual emissions are 20-30% below the interim cap. LCRA will consider lowering or accelerating the caps required by the flexible permit.

The University of Texas at Austin - UT is proposing a 75% reduction in the allowable annual NOx emissions from its grandfathered units. The historical potential NOx emissions from these units is 1,388 tons per year. Under the current VERP application the University will limit NOx emissions from grandfathered units to 341 tons per year. The University will meet these reduced emissions levels by limiting operating hours on certain equipment and by installing 10-year BACT controls on other equipment. Controls are proposed to be added to Boiler #7 in 2004 and Boiler #3 in 2005. The University will continue to operate its permitted unit (Gas turbine/boiler #8) as usual; this unit has average NOx emissions of 394 tons per year.

IMPLEMENTATION: Agreed order (AE, LCRA) or permit (UT)

REGIONAL COSTS: TBD

EXPECTED POLLUTION REDUCTIONS: TBD

Appendix B

Description of Emission Reduction Measures in Table 2

B1. Texas Emission Reduction Program (TERP)

DESCRIPTION: Secure all available TERP incentives/grants for equipment and fuels in the five county area. Available incentives/grants cover the incremental cost of cleaner diesel on-road and off-road engines and equipment, cleaner fuel needed for the equipment and clean fuel infrastructure.

B2. Texas Low Emission Diesel (TxLED) for Fleets

DESCRIPTION: Purchase and use Texas Low Emission Diesel in on and non-road vehicles and equipment.

B3. Transportation Emission Reduction Measures (TERMs)

DESCRIPTION: Implement transportation projects and programs that reduce emissions. Projects and programs include improved transit options and level of service, intersection improvements, grade separations, signal synchronizations and/or improvements, peak and/or off-peak traffic flow improvements, park and ride facilities, bike/ped facilities, high occupancy vehicle lanes, rail, demand management, intelligent transportation systems etc. Many TERMS are already planned and funded. CAMPO has issued a call for projects that may provide funding for additional TERMS.

B4. Access Management

DESCRIPTION: Adopt access management regulations or guidelines for new or re-development. TxDOT has proposed guidance available. Access management includes managing roadway access by limiting the number and location of allowable curb cuts and driveways, consolidating access to multiple business through one main driveway, side road etc. Access management reduces congestion, vehicle delay and associated emissions.

B5. Alternative Commute Infrastructure Requirements

DESCRIPTION: Require all new non-residential developments of 25,000 sq. ft. or more and developments that increase their square footage 25% or more and have/expect 100+ employees on the site to include bicycle commuting facilities (parking/racks and showers) and preferential carpool/vanpool parking spaces.

B6. Drive-Through Facilities on Ozone Action Days

DESCRIPTION: Require or encourage businesses with drive-through facilities to post signs on Ozone Action Days asking customers to park and come inside instead of using the drive-through facilities. Encourage the public to comply.

B7. Expedited permitting for mixed use, transit oriented or in-fill development.

DESCRIPTION: Provide an expedited permitting process and/or other incentives for mixed use, transit oriented or in-fill development. Developments would have to meet certain performance criteria in order to qualify for expedited permitting.

B8. Use of electric or alternative fuels for airport GSE

DESCRIPTION: This category includes new and in-use ground support equipment (GSE) used in airport operations. GSE perform a variety of functions, including: starting aircraft, aircraft maintenance, aircraft fueling, transporting cargo to and from aircraft, loading cargo, transporting passengers to and from aircraft, baggage handling, lavatory service, and food service. The Air Transportation industry has informed Central Texas that they will oppose any requirements on their industry.

B9. ABIA Airside incentives for GSE use reduction

DESCRIPTION: ABIA has begun and will complete the addition of building supplied power and preconditioned air for all aircraft parked at the gate. This will eliminate the need to run on-board auxiliary power units (APUs), and air conditioning (ACUs) and ground power units (GPUs) by the air carriers if they will participate. It is not clear if we can mandate their use, or if it will need to be on a voluntary basis. Implementation might require creating incentives or use restrictions. Estimated 0.16 tpd NOx reduction.

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clearly legible for satisfactory recordation.

B10. Integrate alternative fuels into City's aviation fleet

DESCRIPTION: Begin replacement of Aviation Fleet equipment with propane fuel starting FY2003. Purchase of 10 propane pro-turf mowers, and 4 propane non-road truck-alls. Planned purchases at this time. Future replacement subject to budget provisions.

B11. Operate alternative fueled surface parking lot shuttle buses

DESCRIPTION: ABIA currently operates 29 propane buses for passenger service between the terminal and the parking lots. Averages 25,000 gallons of propane per month. Estimated 60% NOx reduction. Take credit for current operations.

B12. Use existing ABIA alternative fuel infrastructure for off-site parking shuttle buses

DESCRIPTION: Propane fueling infrastructure is available at ABIA that could be used to refuel off-site parking shuttle buses. Encourage or mandate these services to shift to propane by 2005. Estimated 60% NOx reduction.

B13. Low VOC Striping Material

DESCRIPTION: Require use of reformulated striping material products (i.e., water-based paints or thermoplastic) to achieve VOC reductions.

B14. Landfill Controls

DESCRIPTION: Adopt control strategy for municipal solid waste landfills based upon the EPA's New Source Performance Standard (NSPS) and Guidelines. A municipal solid waste landfill is a disposal facility in a contiguous geographical space where household waste is placed and periodically covered with inert material. Landfill gases are produced from the aerobic and anaerobic decomposition and chemical reactions of the refuse in the landfill. Landfill gases consist primarily of methane and carbon dioxide, with volatile organic compounds making up less than one percent of the total emissions. Although the percentage for VOC emissions seems small, the total volume of gases is large.

B15. Open Burning Restrictions

DESCRIPTION: Amend and/or adopt regulations to ban the open burning of such items as trees, shrubs, and brush from land clearing, trimmings from landscaping, and household or business trash, during the peak ozone season. It reduces VOCs and NOx.

B16. Tree Planting

DESCRIPTION: Implement landscaping ordinances to require additional urban tree planting. Reforestation improves air quality and energy efficiency.

B17. Extend energy efficiency requirements beyond SB5 and SB7.

DESCRIPTION: Require additional energy efficiency measures beyond SB5 and SB7, such as building design, revisions to codes and standards, and energy management programs for large commercial facilities. Additional energy efficiency measures could provide significant reductions in energy demand and demand-related emissions.

B18. Shift the electric load profile

DESCRIPTION: Require commercial facilities to develop overnight the reservoir of cold water needed to meet air conditioning needs the following day. Total energy consumption and emissions are not reduced, but the emissions are not generated during the day, reducing the potential for ozone formation.

B19. Environmental dispatch of power plants

DESCRIPTION: To meet peak demands, this strategy would involve "ramping up" power generation facilities that are either cleaner than normally used or located away from high NOx-producing areas (e.g., plants in Bastrop and Marble Falls rather than the Decker or Holly Street plants in downtown Austin).

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B20. Clean Fuel Incentives

DESCRIPTION: Encourage and/or provide incentives to implement fuels that are cleaner than conventional gasoline and diesel, including alternative fuels, lower sulfur gasoline and low sulfur diesel.

B21. Low Emission Vehicles

DESCRIPTION: Encourage and/or provide incentives for the purchase and use of Tier 2 Bin 3 or cleaner vehicles for fleets and private use.

B22. Adopt-a-School-Bus Program

DESCRIPTION: Encourage local school districts to participate in this CLEAN AIR Force sponsored program to replace or retrofit old diesel school buses with new, cleaner buses. Replacements and retrofits are implemented using 50% corporate sponsorship funds and 50% school district funds. EPA provides seed money to the CLEAN AIR Force for a fundraiser and program administration.

B23. Police Department Ticketing

DESCRIPTION: Implement aggressive police enforcement by local agencies of speed limits 55 mph or more and smoking vehicle restrictions. If the smoking vehicle is fixed within 60 days, the ticket could be waived.

B24. EPA Smart Way Transport Program

DESCRIPTION: EPA sponsored voluntary partnership with freight carriers and shippers to reduce fuel consumption and emissions through strategies such as idle reduction, improved aerodynamics, improved logistics management, automatic tire inflation systems, wide-base tires, driver training, low-viscosity lubricants, reduced highway speed and lightweight vehicle components. Participating carriers and shippers will meet voluntary performance goals and track progress. EPA will provide a calculation and tracking software tool and technical support. Several carriers and shippers have already signed up.

B25. Business Evaluation of Fleet Usage, Including Operations and Right Sizing

DESCRIPTION: Evaluate and improve the efficiency of fleet usage, including using alternative or clean fueled vehicles, using the cleanest vehicle appropriate for the job, consolidating and coordinating trips etc.

B26. Parking Incentives for Alt Fuel or Low Emission vehicles

DESCRIPTION: Provide parking incentives for Tier 2 Bin 3 or cleaner vehicles. These clean vehicles could be allowed to park for free at parking meters, have designated parking spaces. This would encourage the use of these cleaner vehicles.

B27. Commute Solutions Programs

DESCRIPTION: Encourage and provide tools to implement Commute VMT reduction programs (e.g. Teleworking, compressed work week, carpooling/vanpooling, bus fares, subsidized transit pass, flextime, carpool or alternative transportation incentives etc.). The Commute Solutions program provides information and tools to implement these programs. Could be used to support a commute emission reduction regulation.

B28. Direct Deposit

DESCRIPTION: Offer employees direct deposit potentially saving at least one vehicle errand per pay period.

B29. e-Government and/or Available Locations

DESCRIPTION: Provide web-based services, both for information and transactions, and/or multiple locations for payments, etc.. Reduces VMT and associated emissions.

B30 Voluntary use of APUs for locomotives operating in Central Texas

DESCRIPTION: Controls for locomotives are pre-empted by Federal law, but voluntary controls might have some success, since using Auxiliary Power Units (APUs) also decreases fuel costs to the railroad companies. CSX has been considering the use of APUs to reduce fuel use.

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B31. Fueling of Vehicles in Evening

DESCRIPTION: Promote fueling vehicles after peak hot periods of the day have passed during ozone season.

B32. Urban Heat Island/Cool Cities Program

DESCRIPTION: Develop and implement Urban Heat Island (UHI) mitigation strategies. Since ozone forms at higher temperatures, the purpose of this strategy is to keep the city as cool as possible, through vegetation, cool roofing and light colored pavement.

B33. Resource Conservation

DESCRIPTION: Expand and quantify ongoing resource conservation programs (materials recycling, water and energy conservation, etc.)

B34. Increase investments by Central Texas electric utility providers in energy demand management programs

DESCRIPTION: This measure would involve the development of energy demand management programs in areas outside the Austin Energy service area. Austin Energy offers financial incentives to commercial and residential customers for installation of energy efficient appliances and technologies and they report a good correlation between their demand programs and reduced emissions at their power plants. This measure would encourage other utility providers in the region to develop similar programs.

B35. Alter production processes and fuel choices

DESCRIPTION: This strategy involves exploring opportunities to improve efficiency, to make changes in certain combustion processes, and/or to alter fuel choices where cost-effective. Some point sources in the area (e.g. Austin White Lime) are using natural gas for cost reasons. Given their production processes, using natural gas results in higher NOx emissions than using coal. Representatives have expressed interest in examining their production process and/or revisiting their fuel choices, particularly during the ozone season. Other point sources, such as Behr-Helmuth Cement are also looking at reduced fuel and fuel changes to reduce NOx.

B36. Contract provisions addressing construction related emissions on high ozone days

DESCRIPTION: Public contracts may include provisions to limit construction activities and equipment operation on high ozone days. A specified number of these high ozone days would be built into the contract. While this is controversial, it is one of the only ways to target nonroad construction emissions.

B37. Ensure emission reduction in SEPs, BEPS and similar agreements

DESCRIPTION: Ensure that the primary impact of all air quality related SEPs, BEPs or similar agreements applicable to the EAC area, is to reduce emissions and improve air quality. EPA and/or TCEQ would consult to the extent possible, with the local EAC signatories when developing any air quality related environmental mitigation agreement, such as a SIP, BEP or other similar agreement.

B38. Ozone Action Day Education Program

DESCRIPTION: Implement a public ozone education program, including ozone action days and recommended actions.

B39. Ozone Action Day Response Program

DESCRIPTION: Implement a program of specific emission reduction measures taken on ozone action days.

RECORDERS MEMORANDUM

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Air Quality in Central Texas

Early Action Compact
(EAC)
Update



Ozone Design Value Austin MSA, Season 2003

4th Highest Ozone Values
Austin



Value of Attainment Improved Public Health

- Ozone irritates throat & lungs
- Ozone reduces lung capacity
- Ozone can worsen asthma
- Children & seniors most affected



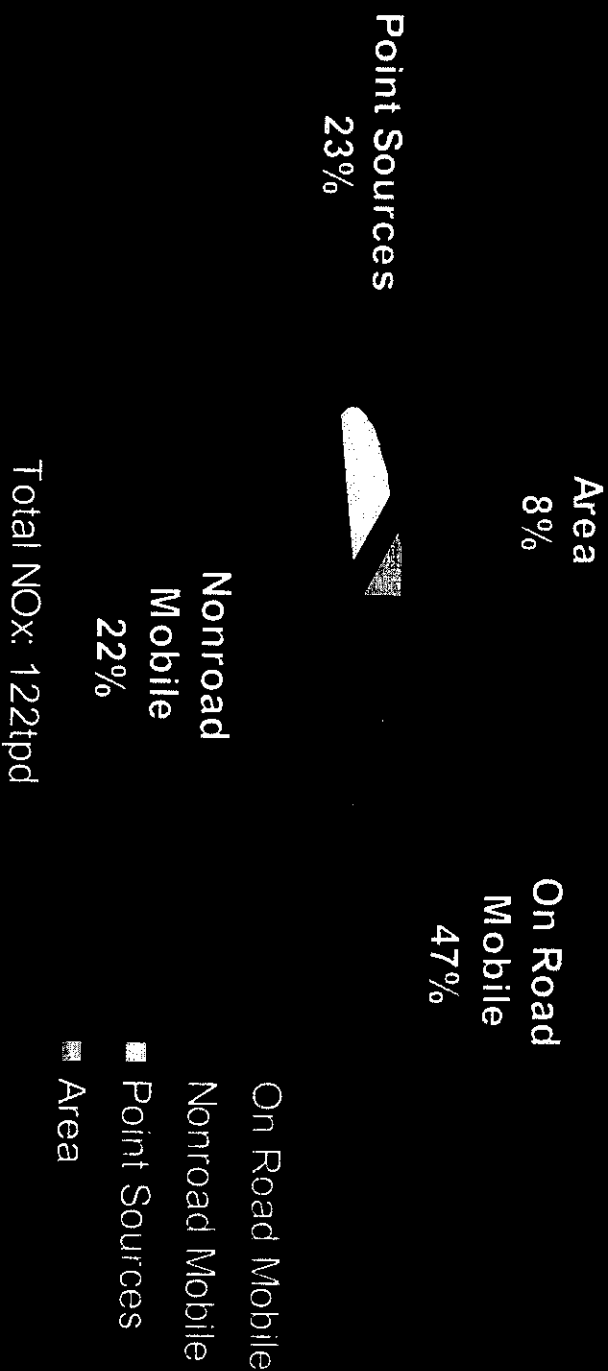
Value of Attainment Healthy Economy

- Attainment protects highway funding
- Attainment lowers costs associated with health care & school absences
- Attainment keeps region competitive in business recruitment



Emissions Inventory 2007 Anthropogenic NOx

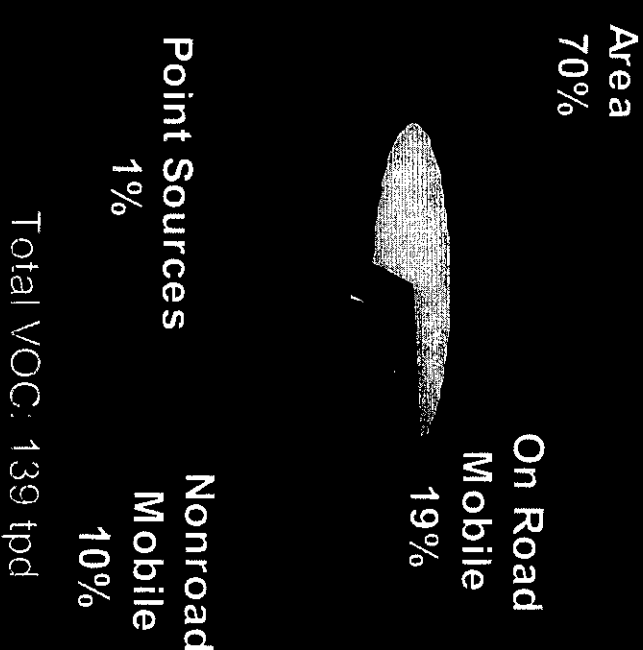
2007 Emissions Inventory Anthropogenic NOx



Emissions Inventory 2007

Anthropogenic VOC

2007 Emissions Inventory
Anthropogenic VOC



On Road Mobile
Nonroad Mobile
■ Point Sources
■ Area



Selecting CAAP Measures

- Draft recommendations for CAAP measures are in your packet
- Some measures (Table 1) apply to all or most counties and require state regulations or actions; others (Table 2) may be used to complete "fair share" commitments and require local action
- Recommended measures are being put forward for public comment during November
- CAPP measures must be selected by early December, 2003



Discussion of Recommended Measures for Inclusion in the Clean Air Action Plan

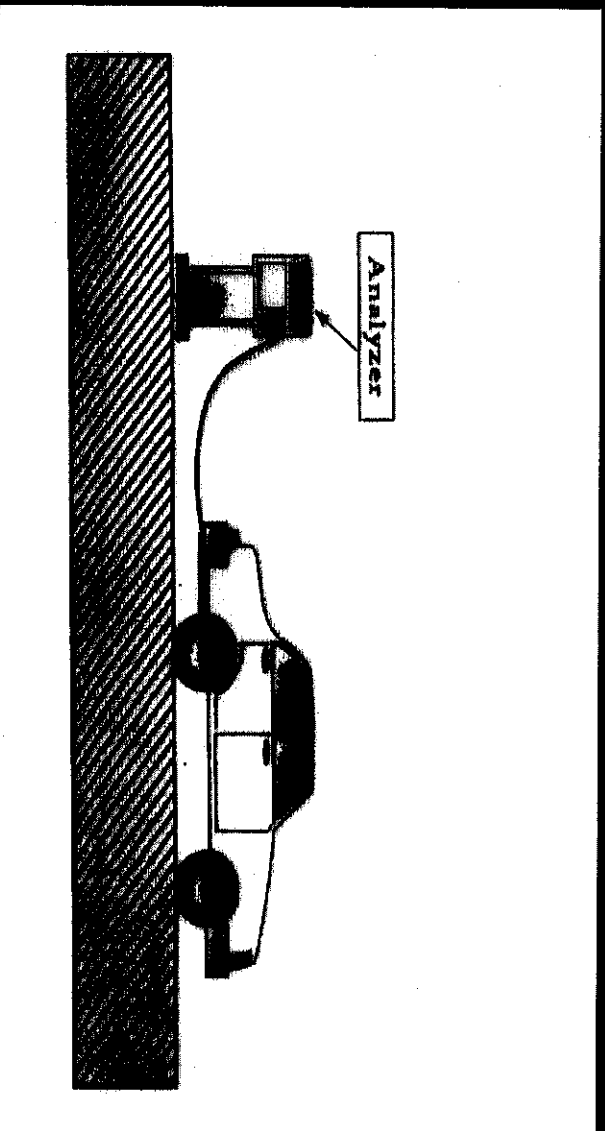


Inspection & Maintenance

- Annual inspection of gasoline vehicles 2 to 24 years old
- OBDII testing for model year '96 and newer
- Two-Speed Idle testing for older vehicles
- On-road remote sensing to identify high emitters
- Low Income Repair Assistance Program (LIRAP)



Two-Speed Idle (TSI) Test

**Definition:**

A measurement of the tailpipe exhaust emissions of a vehicle while the vehicle idles, first at a lower speed and then again at a higher speed.

Equipment:

Analyzer system with OBD, Fuel Cap Tester, Bar-code Scanner, Computer, Monitor, Printer

TSI Tests Method:

Two Speed Idle Emissions test - High Speed Phase (2500 RPM)
Low Speed Phase (850 RPM)

TSI Measurements:

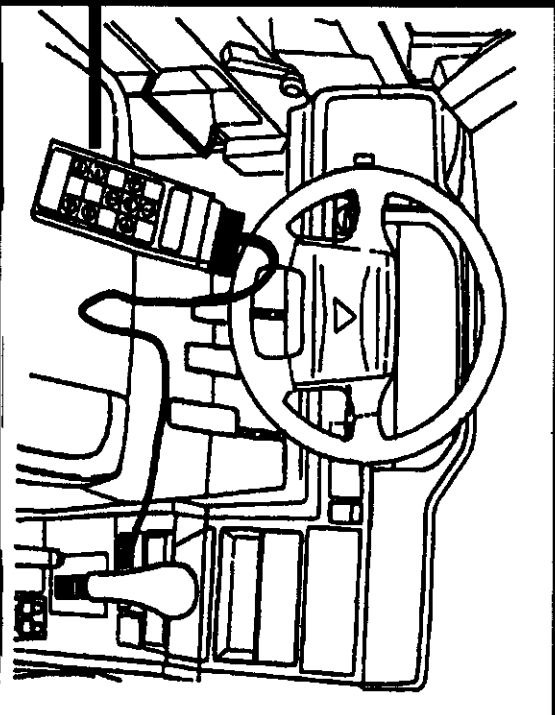
Hydrocarbons (HC), Carbon Monoxide (CO)
Carbon Dioxide (CO₂), and Oxygen (O₂)

Vehicles Tested:

Model Year 1995 and older



On-Board Diagnostic (OBD)

**Definition:**

Downloads data from the computerized system on 1996 and newer vehicles which monitors emissions related systems

Equipment:

Incorporated into TSI analyzers

Measurements:

Checks vehicle emissions control equipment

Vehicles Tested:

Model Year 1996 and newer vehicles



Texas Emission Reduction Program (TERP)

- State funded grant program to reduce diesel emissions and encourage technical innovation
- Covers incremental cost of cleaner diesel engines and fuels (on-road and off-road)
- Eligibility threshold of \$13,000 per ton of NOx reduction



Mayor
City of _____

Dear Mayor and Councilmembers:

I am writing for two reasons: 1) to ask your assistance with clean air planning activities in _____ County, and 2) to invite you and your fleet operators and/or purchasers to attend an informative workshop about state grant funds we hope you will consider applying for.

The five county governments in the Austin/Round Rock Metropolitan Statistical Area (Austin/RR MSA), along with several of the largest cities in the MSA, are developing a clean air plan. I invite you to join in the process. Once implemented, elements of the plan will affect every person living and working in this region.

As you may know, _____ County and the City of _____ entered into an Early Action Compact with the Texas Commission on Environmental Quality (TCEQ) and the United States Environmental Protection Agency (US EPA) in December 2002. As a result, we are committed to implement a Clean Air Action Plan (CAAP) no later than March 2004. The CAAP will demonstrate how the Austin/RR MSA can comply voluntarily with the federal Clean Air Act's new 8-hour National Ambient Air Quality Standard (NAAQS) for ground-level ozone. Our region's air quality does not currently meet the 8-hour NAAQS, which is meant to protect the health of such vulnerable populations as children and seniors. Assuming we meet all deadlines contained in the Early Action Compact for attaining the 8-hour NAAQS, TCEQ and US EPA are committed to deferring the region's nonattainment designation. This process should save us from costly federal mandates while bringing Central Texans clean air two years earlier than waiting for US EPA's traditional regulatory process to take effect.

In order to develop and implement the CAAP, the 12 local jurisdictions that signed the Early Action Compact formed the Clean Air Coalition (CAC). The membership of the CAC includes the County Judge or a Commissioner from Bastrop, Caldwell, Hays, Travis and Williamson Counties; and the Mayors of Austin, Bastrop, Elgin, Lockhart, Luling, Round Rock, and San Marcos. Together we are analyzing emission reduction measures that could effectively decrease ozone pollution in our region, ensuring the MSA remains in compliance with federal law. I've enclosed a list of these measures for your consideration and look forward to hearing your comments. Later this year the CAC will recommend a final set of emission reduction measures, tailored to our region's needs, to include in the CAAP. The 12 signatory jurisdictions will vote on mandating implementation of these measures (found in Table 1 of the enclosed Draft CAAP Recommended Measures), in coordination with TCEQ, other state agencies, and US EPA.

•

As a CAC member, I encourage you and other public sector colleagues throughout the MSA to implement your own voluntary emission reduction measures as quickly as possible. Table 2 of the enclosed Draft CAAP Recommended Measures is a list of measures that other jurisdictions are considering or have implemented. Please look them over to determine if any are a good fit for your organization, too. I encourage you to commit to as many as are feasible. You may find that the City of _____ has already implemented some of these measures. If so, please let us know. This is useful information for the regional planning process.

I also want to encourage you and any appropriate staff to attend the free air quality grant workshop and vendor exhibition on November 14, 2003. The event will provide you with useful information about existing funding and technology opportunities for improving air quality. Please see the enclosed flyer for details.

The Clean Air Coalition relies on technical staff from member jurisdictions, and others from the Capital Area Metropolitan Planning Organization (CAMPO), the Capital Area Council of Governments (CAPCO), the CLEAN AIR Force (CAF), and the TxDOT-Austin District, to advise on necessary elements of the Clean Air Action Plan. This group is known as the Early Action Compact Task Force (EACTF) and is chaired by Ms. Cathy Stephens of CAMPO.

You may contact Ms. Stephens at 512-974-1861 (or cathy.stephens@campotexas.org) to learn more about the Early Action Compact and how you can participate in plan development. While considering your own jurisdiction's commitments to cleaner air, please take careful note of measures that are already in place, particularly those begun since 1999 (our base modeling year). These are important factors to include in modeling plan effects. In order to meet plan deadlines, your input is needed by December 5, 2003. Either Ms. Stephens or another EACTF member will contact you to follow up on this request. EACTF staff are always available to make presentations to your council.

Thank you for your attention to this important public health issue. I look forward to working with you as a partner in the goal of ensuring healthful air for all citizens of our region.

Sincerely,

Judge _____

Enclosures:

Draft CAAP Recommended Measures
Do something! Brochure
Workshop/Exhibition Flyer

Air Quality Grant Workshops and Vendor Exhibition

Texas is giving away **MONEY!!**

Interested in financial help to **clean up** your equipment?

Grants are available from the
State of Texas to help clean up older, polluting
equipment - primarily heavy-duty and off-road (diesel).

Friday
November 14
9:00 am - 12:30 pm

Registration and
Exhibits open 9:00 am
Program Conclusion
Exhibit reopen 12:00 pm

General Registration Information

Draft TXDOT Bldg #XXX
XXX Riverside Drive
RSVP: 512.322.5604
Workshop Cost: Free
Draft

Workshop Topics

- What are the **potential economic impacts** of continued air pollution in Central Texas?
- What is the Texas Emissions Reduction Plan or **TERP**?
- How can I **modernize my equipment** with the latest Tier 2 or Higher Technology?
- Who is eligible to receive this **money**?
- What process must I go through to **receive funds**?

Supporting Organizations



TXDOT

For current agenda visit www.austinchamber.org/what_s_new/

Austin Area Vehicle Emissions Inspection Program FAQs

What is TSI and how does it work?

Two-Speed Idle (TSI) is a vehicle emissions test using a tailpipe probe that measures certain harmful pollutants in motor vehicle exhaust while the vehicle is idling at a low and a high rate. The pollutants measured by TSI are Hydrocarbons and Carbon Monoxide. Model Year vehicles 1995 and older are tested using TSI equipment.

What is OBD and how does it work?

All 1996 and newer vehicles less than 14,000 pounds (passenger cars, pickup trucks, sport utility vehicles) are equipped with On-Board Diagnostic (OBD) systems. The OBD system monitors emission performance components to ensure that the vehicle runs as cleanly as possible. The system also assists repair technicians in diagnosing and fixing emission related problems. If a problem is detected, the OBD system illuminates a "Check Engine" or "Service Engine Soon" warning lamp on the vehicle instrument panel to alert the driver. The system will also store more important information about the detected malfunction so that a repair technician can accurately find and fix the problem.

What is the OBD test in a Vehicle Emissions Inspection Program?

The On Board Diagnostic (OBD) test is a noninvasive diagnostic method used to test the emission controls on 1996 and newer model vehicles. Model year 1996 and newer vehicles are required to meet Environmental Protection Agency (EPA) specifications for collection and transfer of emissions control data during each driving cycle. The Diagnostic Link Connector (DLC) cable on the emissions test analyzer is hooked up to the DLC located in the vehicle. When the vehicle's OBD system has checked the emissions control systems and detected a problem with the vehicle, this information is stored in the vehicle's on-board computer. The OBD test transmits this data to the analyzer, and the vehicle will fail the inspection. The inspection report will indicate which emissions control systems were checked, and display the description of the fault codes retrieved from the vehicle.

What if I can't afford to pay for repairs for my vehicle that fails an emissions test? Can I get a waiver, extension, or financial assistance?

Yes, the following waivers and extensions will be available to vehicle owners through the Texas Department of Public Safety (DPS):

- **Individual Vehicle Waiver**– In order to address unusual cases where a vehicle cannot meet emissions standards, an *Individual Vehicle Waiver* maybe issued to a vehicle owner whose vehicle has failed its initial emissions inspection and re-inspection, and in which at least \$600 in emissions related repairs have been performed by a registered repair facility.

- **Low Mileage Waiver** – A *Low Mileage Waiver* may be issued to a vehicle owner whose vehicle has failed both its initial emissions inspection and the re-inspection, and in which at least \$100 in emissions related repairs have been

performed. The vehicle should have been driven less than 5,000 miles in the previous inspection cycle and is expected to be driven fewer than 5,000 miles before the next safety inspection is required.

Parts Availability Time Extension – A *Parts Availability Extension* may be issued for 30, 60 or 90 days to a vehicle owner whose vehicle fails the initial emission inspection and needs time to locate necessary vehicle emissions control parts.

Low Income Time Extension- A *Low Income Time Extension* may be issued to a vehicle owner whose vehicle has failed its initial inspection and re-inspection, and the applicants adjusted gross income is at or below the federal poverty level.

Additionally, counties that implement a vehicle emissions inspection program may elect to implement the Low Income Repair Assistance, Retrofit, and Accelerated Vehicle Retirement Program (LIRAP). Vehicle owners whose vehicles fail the emissions inspection and meet eligibility requirements may receive assistance through this program to pay for emissions related repairs or toward a replacement vehicle if they choose to retire the vehicle. The assistance program is funded through a portion of the emissions inspection fee.

Who is affected by the emissions program?

Emissions testing is implemented throughout the entire participating county. Owners of gasoline-powered vehicles that are 2 to 24 Model Years old will have emissions tests performed on their vehicles at the time of their annual safety inspection. Current vehicle safety inspection stations will have to make a business decision on whether to invest in the TSI/OBD testing equipment to continue performing annual vehicle inspections or no longer perform annual inspections all together.

How much does TSI/OBD test equipment cost the inspection station?

A TSI/OBD analyzer will cost approximately \$15,000. This includes the TSI and OBD analyzer testing system, gas cap tester, and 2-D Bar Code scanner.

How much will a TSI/OBD test cost the vehicle owner?

The inspection fee which will be added to the annual safety inspection fee of \$12.50 is still to be set, but will have to be sufficient to meet the inspection station's costs to acquire and operate the testing equipment, the costs to The Texas Department of Public Safety and Texas Commission on Environmental Quality of implementing the program, and if the program county decides to implement the Low Income Repair, Retrofit, and Replacement Assistance Program, the fee will have to cover the cost of that program.

When I take my car in to be inspected, how long will the test take?

The entire vehicle safety and emissions inspection should be completed in about 20 minutes from the time the vehicle is driven into the inspection bay.

Where will I be able to have my car inspected?

Vehicle inspections will be performed at many of the same stations that currently perform the annual vehicle safety inspection.

What should I do if my vehicle fails the emissions test?

If your vehicle fails, the items of failure will be indicated on the *Vehicle Inspection Report* (VIR). The vehicle should be repaired and returned to the same inspection station within 15 days for a free re-test.

How is remote sensing used in a vehicle emissions testing program?

Remote sensing is used to target high-emitting vehicles commuting from adjacent I/M program counties. Targeted motorists are required to have their vehicle tested within 30 days of notification. The van-installed on-road testing equipment is strategically placed to capture auto emissions from single-lane traffic in an acceleration mode and is utilized in densely populated areas.

Low Income Repair Assistance, Retrofit, and Accelerated Retirement Program (LIRAP)**What is LIRAP?**

The Low Income Repair Assistance, retrofit, and Accelerated vehicle Retirement Program (LIRAP) provides vehicle repair and replacement financial assistance to owners whose vehicles have failed a state emissions test. Vehicle owners who meet eligibility requirements may receive assistance through this program to pay for emissions related repairs or toward a replacement vehicle if they choose to retire the vehicle.

How is the program administered?

Participation in the program is voluntary by counties that have implemented an Inspection/Maintenance program. The program is administered through a grant contract between TCEQ and each participating county. Only 5% of the grant contract funds may be used for the administrative costs of the program.

How is LIRAP funded?

Funds come from a portion of the state vehicle emission inspection fee as adopted by Texas Commission on Environmental Quality rule.

How much financial assistance is provided to the vehicle owner?

Assistance is limited to no more than \$600 for repairs or \$1,000 toward replacement of the vehicle.

What are the vehicle owner's eligibility requirements for LIRAP?

The vehicle owner's total family income must be less than or equal to twice the amount of the Federal Poverty Guidelines for designated family units. (e. g. \$24,240 for a family of two and \$36,800 for a family of four)

What is the vehicle's eligibility requirements for repair assistance?

- have failed vehicle emissions test within 30 days of application
- be currently registered and has been registered in the program area for the two years preceding application
- pass the safety portion of the test
- repairs must be performed at a DPS recognized repair facility

What is the vehicle's eligibility requirements for retirement?

- same as repair assistance except the vehicle must have passed a safety test within 15 months of the application

What is a DPS Recognized Repair Facility?

DPS Recognized Emission Repair Facilities employ Automotive Service of Excellence (ASE) L-1 certified repair technicians who are well trained and certified to properly diagnose and repair vehicles that have failed an emissions test. Recognized Repair Facilities are also equipped with the proper diagnostic repair equipment to aid their repair technicians in ensuring repairs were done effectively.

Austin Area**Current and Projected Inspection & Maintenance *Subject Fleet**

County	2003 Subject Fleet				Current Safety Inspection Stations
	OBD Vehicle Count	OBD Vehicle Percentage	TSI Vehicle Count	TSI Vehicle Percentage	
Travis	281,835	56%	221,790	44%	204
Williamson	104,555	61%	67,916	39%	72
Hays	34,467	56%	27,538	44%	32
Bastrop	18,793	51%	18,070	49%	17
Caldwell	9,960	51%	9,659	49%	13
Total	449,610	57%	344,973	43%	338

RECORDERS MEMORANDUM

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County	Estimated 2007 Subject Fleet			
	OBD Vehicle Count	OBD Vehicle Percentage	TSI Vehicle Count	TSI Vehicle Percentage
Travis	455,650	80%	111,185	20%
Williamson	161,592	83%	32,526	17%
Hays	55,211	79%	14,576	21%
Bastrop	31,004	75%	10,485	25%
Caldwell	16,375	74%	5,706	26%
Total	719,832	80%	174,478	20%

* Subject fleet are all gasoline-fueled vehicles, 2-24 years of age, except motorcycles. Data is extracted from TxDOT registration database and projections are made based on a 3% annual increase in each age group.

RECORDERS MEMORANDUM

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**Draft Vehicle Inspection & Maintenance (I&M) Program
As Recommended by the Early Action Compact Task Force (EACTF)**

General

- Annual state vehicle emissions testing and repair program for all subject gasoline vehicles 2 to 24 years old, and registered in the I&M program counties (Hays, Travis and Williamson).
- Tests are conducted at all safety inspection stations
- Failed vehicles repaired within 15 days get a free retest
- I&M program costs and fees can be lower than those in Dallas and Houston, where the combined safety and emissions test costs \$39.50
- Emissions test fee (set by TCEQ) expected to be no more than \$20 in Central Texas
- Equipment costs (estimated at \$15,000 per station) recouped through fees
- Per state statute, vehicles belonging to students at public universities but registered in non-I&M program counties must participate to receive campus parking privileges.
- Test on resale is required for all vehicles from non-I&M program counties that are sold and registered in the I&M program counties

1996 model year and newer vehicles at least 2 years old

(Approximately 60% of the 3-county fleet, percent increases over time)

- Vehicle emissions are tested using the state's current OBDII testing program
- OBDII testing uses cost effective on-board diagnostic equipment
- OBDII tests volatile organic compounds (VOC) and nitrogen oxides (NOx) emissions
- The OBDII testing program is currently used in Dallas and Houston.

1995 model year and older vehicles, no more than 24 years old (Approximately 40% of the 3-county fleet, percent decreases over time)

- Vehicle emissions are tested using a Two-Speed Idle (TSI) testing program
- TSI test is a fairly cost effective way to test pre-OBD vehicles
- TSI only tests VOC emissions; NOx emissions are not tested.
- A TSI testing program is currently used in El Paso for all 2 to 24 year old subject gasoline vehicles, but limited to 1995 and older vehicles here.

High Emitters

- High emitting vehicles have significantly more emissions than allowed by federal standards
- As in Houston and Dallas-Fort Worth, on-road remote sensing equipment will be used to identify high emitting vehicles in the three I&M program counties or commuting from contiguous counties
- Vehicles identified as high emitters must have the age-appropriate OBDII or TSI test, and be repaired if necessary
- Passing test result (or waiver) needed to renew vehicle registration

Low Income Repair Assistance Program (LIRAP)

- The state LIRAP program will only be available in I&M program counties that choose to administer such a program with state funds.
- Failing vehicles registered in the LIRAP counties (whose owners meet program eligibility thresholds) can access repair grants and vehicle retirement subsidies.

AGENDA ITEM 22**Consider and approve proposal of Supplemental Geotechnical Study - McNeil Road Improvements from Kleinfelder of Austin.**

Paul Petrich addressed the court on the issue of the need for a supplemental geotechnical survey of the fill soil near McNeil road.

Moved: **Commissioner Boatright**

Seconded: **Commissioner Limmer**

Motion: To approve a preliminary, Supplemental Geotechnical Study for the McNeil Road Improvements by Kleinfelder of Austin, then to consider extra liability insurance on the project.

Vote: 4 – 0.

< Attachment >



October 1, 2003

Williamson County
c/o Mr. Mike Weaver, Program Manager
Prime Strategies, Inc.
1508 South Lamar Boulevard
Austin, Texas 78704

Reference: Supplemental Geotechnical Study
McNeil Road Improvements
Williamson County, Texas

Dear Mr. Weaver:

We appreciate this opportunity to be of service on the *McNeil Road Improvements* project. We met with and reviewed the plans provided to us by Mr. Jim Brewer of Gray-Jansing & Associates, made a preliminary site reconnaissance of the proposed alignment, and reviewed available geotechnical information for the area to prepare this proposal. We also obtained boring logs from PBS&J for soil borings conducted for the SH 45 crossing of McNeil Road. This letter and attachments represent our proposal and fee estimate to successfully complete our recommended scope of services to adequately address the site conditions and prepare geotechnical recommendations and reports for the project.

BACKGROUND INFORMATION

The proposed project is to widen and realign McNeil Road from Howard Lane to the new SH 45 crossing. McNeil Road is currently a two-lane roadway that has dangerous curves between the Austin White Lime quarry and Howard Lane. We understand that an alignment shift is required from the originally designed alignment due to the presence of karst features. As such, new borings will be required to address the pavement design criteria for Williamson County. Our recommended scope for the realigned roadway design investigation is presented as Phase 1.

A new bridge will be constructed between Howard Lane and the quarry to carry McNeil Road over the existing Austin and NW Rail Line and future rail lines and a new haul road for Austin White Lime. Since the originally planned location of the bridge has also changed, additional borings will also be required for the new location as well as the approximately 1,400 linear feet of mechanically stabilized earth (MSE) walls.

Portions of McNeil Road along the present alignment south of SH 45 have limited right-of-way, and the widening is constrained by the quarry on the west and Union Pacific railroad (UPRR) tracks on the east. We understand McNeil Road will be widened by creating a fill embankment along the west side of the existing roadway, in the direction of the quarry. We recommend

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