

## EVALUATION OF TESTIMONY

An individual stated that this state implementation plan (SIP) proposal is a phantom air pollution reduction plan because it takes credit for federal initiatives while supplying few of the state's own. Furthermore, the individual believes that this SIP should be rejected by the United States Environmental Protection Agency (EPA) and revised by the commission to present real emissions reductions and not phantom ones.

**The consolidated SIP revision is composed of revisions to the 1993 15% Rate-Of-Progress (ROP) SIP, the 1990 Base Year Emissions Inventory (EI), the Post-96 (9%) SIP, the Employer Trip Reduction (ETR) Program and rule, and the El Paso (ELP) Section 818 Attainment Demonstration. These SIPs, rules, and programs were previously submitted to the EPA. They are being revised at this time to take account of various changes to the EI, EPA guidance, and to the Vehicle Inspection and Maintenance (I/M) Program and rule. Because the State of Texas has met its regulatory requirements under the Federal Clean Air Act (FCAA) Amendments of 1990, there was no need for additional regulation as part of this SIP revision. Furthermore, the FCAA Amendments of 1990 provides for states to take credit for reductions in ozone precursors which occur as a result of certain federal regulations. The state has done so when appropriate.**

An individual stated objection to the phased-in plan for SIP attainment because this is not allowed under the FCAA Amendments of 1990. This commenter believes that this is an illegal plan and must be rejected by the EPA.

**The commenter is referring to the Phased Attainment Demonstration schedule provided in the Post-96 ROP SIP for Houston/Galveston (HGA). The commenter is correct that the FCAA Amendments of 1990 do not specifically provide for the modeling and SIP submittal time line provided in the Texas plan. However, the Texas plan does provide for attainment of the standard by the required date of 2007. The commission believes that the Texas plan meets the intent of the FCAA Amendments of 1990 because it will result in attainment of the standard in a more timely, cost-effective fashion based on sound science, because it allows for continuous feedback on the effectiveness of the plan, and midcourse corrections to the plan if necessary.**

The South East Texas Regional Planning Commission (SETRPC) commented that because the Beaumont/Port Arthur (BPA) area has recently been reclassified to Moderate status from Serious, the requirements for the additional 9% ROP reductions obtained in the Post-96 SIP no longer apply to the area. Therefore, the SETRPC requests that the Post-96 SIP be revised to remove the BPA area.

**The commission agrees. In response to this testimony, and in light of EPA's reclassification of BPA from a Serious to Moderate area, the Post-96 ROP SIP will be changed to include only the HGA nonattainment area.**

The SETRPC commented that they support continued dialogue with the EPA regarding the development of an attainment demonstration based on an analysis of the "interdomain impacts" of transported pollutants.

**This consolidated SIP package does not address the attainment demonstration modeling for the BPA area. Therefore, this comment is outside the scope of this SIP, and will not be addressed**

**here. This comment has been forwarded to the commission's Air Policy and Regulations Division for review.**

The SETRPC supports the program elements of the combined SIP package.

**The commission appreciates the comment.**

The Environmental Defense Fund (EDF) believes that the revisions to the 1993 15% ROP SIP for the Dallas/Fort Worth (DFW) area will be insufficient to bring the area into attainment status. In particular, the EDF believes that oxides of nitrogen (NO<sub>x</sub>) controls should be implemented, and that the role of long-range transport should be considered.

**The EDF's comments are directed at the DFW Attainment Demonstration and subsequent ozone exceedances in the area. The portions of this SIP revision that pertain to DFW have to do with FCAA Amendments of 1990 requirements to make 15% ROP reductions from a 1990 baseline, not the attainment demonstration. Therefore, these comments are outside the scope of this SIP revision. Nevertheless, the commission will provide information relative to the comments.**

**During the summer of 1996, the commission will be conducting two ambient air sampling programs in the DFW area. First, additional stationary monitors will be installed to measure speciated volatile organic compounds (VOC), measure NO<sub>x</sub> where not previously measured, and to measure meteorological parameters in the upper air. The second sampling program will be performed with mobile sampling vans and will measure emissions from traffic, biogenic sources,**

and area sources. All of this data will be used for performance evaluation of the emissions inventory and to perform photochemical modeling.

The commission has two current projects to address the role of transport of pollutants into the DFW area. The first is a regional modeling project to develop boundary conditions for the Urban Airshed Modeling being performed on the Gulf Coast. This project will model over a large area of Texas along with adjacent states and will cover 28 days from August and September, 1993. Even though the main purpose of the study is to establish boundary conditions south of the DFW area, an analysis of the results will provide insight into the potential levels of transport of ozone and ozone precursors into the DFW area. The second project is the Southern Oxidant Study Seasonal Model for Regional Air Quality in the South which will model with a large domain including Texas and will cover the period from May 15 to September 15, 1995. This study will provide information on the potential transport into the DFW area during a time when high ozone values were measured in Texas.

The modeling submitted in 1994 with the attainment demonstration SIP for the DFW area modeled approximately 80% of the reductions quantified in the 15% SIP. These emission reductions included the original vehicle I/M program, which was recently modified. The modeling showed that the reductions from the 15% SIP should be sufficient to provide for ozone attainment in the DFW area. This assessment is contingent upon obtaining the level of reductions estimated in the SIP. The Section 182(f) waiver for NO<sub>x</sub> controls was based on not needing additional controls to attain the standard, not upon any analysis of the role of NO<sub>x</sub> on ozone formation in the DFW area. After the additional data is collected in 1996 and the regional modeling projects are completed, the commission will be performing photochemical grid modeling to evaluate ozone

**formation in the DFW area. Aspects that will be investigated will be the role of pollutants transported into the area and the role of VOC and NO<sub>x</sub> on formation of ozone. This modeling will be used to assist in determining further courses of action for ozone reduction if needed.**

**Previous study has shown that reductions in NO<sub>x</sub> may, in some cases, actually increase atmospheric photochemical reactions involved in ozone formation. The commission is committed to basing control strategy decisions on the best available science. Therefore, until the science dictates otherwise, the commission will not pursue arbitrary NO<sub>x</sub> reductions.**

The Houston-Galveston Area Council (HGAC) Regional Air Quality Planning Committee (RAQPC) applauds the commission's efforts to develop an approvable SIP for the 1995 15% ROP and Post-96 ROP requirements.

**The commission appreciates the comments.**

The RAQPC commented that the SIP proposal must meet all FCAA Amendments of 1990 requirements, including: 15% by 1996 VOC reductions, 9% by 1999 VOC reductions, 3% contingency measures, transportation conformity, and the vehicle miles traveled offset requirement, if the region is to avoid sanctions.

**The commission agrees and believes that all of these aspects have been adequately addressed in this SIP package.**

RAQPC commented that the attainment demonstration plan as outlined in the Post-96 SIP does not comply with existing EPA guidance on phased approaches to demonstrating attainment; they urge the commission to resolve the disparities soon to avoid starting a sanctions clock.

**A final Phase II Attainment Demonstration for the HGA nonattainment area is not due until May, 1997. The commission will continue to negotiate this issue with EPA.**

An individual believes that the plan should be disapproved because the state submitted its revised I/M SIP revision after the 120 day limit permitted in the 1995 National Highway Systems Designation Act (NHSDA).

**The commenter is mistaken. The NHSDA was signed on November 29, 1995; therefore, the 120 days expired on March 27, 1996. The State of Texas submitted a proposed I/M SIP revision on March 14, 1996, before the 120 day limit permitted in the NHSDA. EPA guidance has indicated that a proposed revision submitted under the governor's signature for parallel processing by the EPA is sufficient to meet the 120-day requirements of the NHSDA. The commission adopted the I/M SIP and rules on May 29, 1996.**

An individual believes that the accelerated vehicle retirement rule will not reduce emissions but rather will help industry delay reducing their emissions.

**The accelerated vehicle retirement program is an incentive to remove grossly emitting vehicles from the road. It is designed to give industry some degree of flexibility in meeting certain rules,**

**while achieving significant pollution reductions. These reductions are not quantified for the purposes of meeting ROP requirements.**

The Automotive Service Association Fort Worth/Tarrant County Affiliate (ASA) commented that “...(t)he SIP is not clear as to implementation of the I/M program preventing the automotive industry planning its participation in the program”.

**The I/M program was taken to public hearing April 8-10, 1996. All comments on the I/M program received by the close of comment period were analyzed. This consolidated SIP package does not address the design elements or requirements of the I/M program; therefore, these comments are outside the scope of this SIP revision and will not be addressed here. The comments will be forwarded to the commission's Mobile Source Division for their review.**

The ASA commented that “...(t)he state implementation plan will shift the burden of reduction to small business without the ability to forecast its cost of doing business.”

**This SIP revision does not include any additional rulemaking, therefore, it does not increase the regulatory burden on any sector, including small business.**

The League of Women Voters (LWV) supports centralized I/M testing and is concerned that the revised Motorist's Choice program will get less creditable emissions reductions than the previous I/M program. Furthermore, the LWV believes that the revised Motorist's Choice program should be implemented in more than one county in the affected nonattainment areas.

**The Motorists' Choice I/M Program was designed to be as convenient to the public as possible without shifting the emissions reductions burden to other source categories. When taken as a whole, with improvements to the EI and other estimation adjustments, the I/M program is still an integral part of the ROP plan.**

The LWV supports efforts by the state to educate vehicle owners concerning their obligation to contribute to pollution prevention and clean-up, and supports strong efforts to control air quality and believes that all who contribute to the problem should contribute to the solution.

**The commission agrees, and will continue to support educational efforts and voluntary programs to educate citizens, small business, and industry alike regarding their responsibility to improve air quality.**

RAQPC commented that they urge the commission to make certain that the Motorist's Choice Program achieves the same relative reductions from the revised 1996 and 1999 targets as the original I/M program achieved in proportion to the original 1996 and 1999 targets.

**The commission will ensure that the 15% and 9% targets are met by 1996 and 1999, respectively.**

**The Motorist's Choice I/M program will continue to play a major role in achieving those targets.**

An individual expressed concern that state agency vehicles are not subject to the low-emission vehicle standards mandated by Senate Bill (SB) 200, Acts of the 74th Texas Legislature, 1995.

**This comment is beyond the scope of this SIP revision since emission reductions from state agency fleets are not included. However, SB 200 specifically retained the requirement that certain state agencies purchase vehicles capable of operating on electricity, ethanol, liquefied petroleum gas, methanol, or natural gas. The Legislature specifically excluded state agency fleets from SB 200's clean-fuel vehicle requirements that cover other fleets in the nonattainment areas, including privately owned and local government fleets. In accordance with the Legislature's action, the commission has not included state agencies under its regulations to implement SB 200. However, the commission supports any independent efforts on the part of state agencies to reduce motor vehicle emissions, including through the purchase of certified clean-fuel vehicles, and will serve as a clearinghouse for state agencies regarding information on certification requirements and clean-fuel vehicle availability.**

SETRPC expressed concern that the automotive fleet control requirements of SB 200 will result in SIP control strategies on mass transit authorities, governmental, and private fleets that are unnecessary in light of the BPA area's reclassification to moderate nonattainment status. SETRPC also urged the commission to take an active role in addressing these issues in the next Legislative session.

**Although all of the nonattainment areas are covered by the Texas clean-fuel vehicle requirements of Chapter 382F, Health and Safety Code, as amended by SB 200, the commission does not intend to submit any requirements covering fleets in the moderate nonattainment areas as a revision to the SIP since only the serious and above nonattainment areas are subject to federal clean-fuel vehicle programs. Thus, transit, private, and local government fleets in the BPA and DFW nonattainment areas, while still covered by the requirements of the state program in the Texas Clean Air Act, will not be included as part of the SIP.**

**The commission is implementing SB 200 in two phases. The first phase impacts the transit authorities in all four nonattainment areas and the private and local government fleets in the HGA and ELP nonattainment areas only. Of these requirements, only the private and local government fleet requirements in those areas will be included in the SIP as the state's substitute for the Federal Clean Fuel Fleet (FCFF) Program. None of the transit fleet clean-fuel requirements will be submitted at this time since it has been determined that they are not needed to show the required equivalency with the FCFF program.**

**The second phase of the SB 200 rulemaking, anticipated to begin Spring 1997, will address the private and local government fleets in the moderate nonattainment areas. The commission believes that this phased approach will allow for further discussion with interested parties, including the Legislature, on the implementation of the clean-fuel vehicle requirements in the moderate areas.**

**With regard to programmatic changes, the commission is directed by Section 382.141, Texas Health and Safety Code, to report to the Governor and the Legislature before the Legislative Session on the implementation of the program and to make recommendations for any legislative changes that it finds to be necessary. Thus, the commission will be afforded an opportunity to make recommendations for any necessary changes to the program at that time. As part of this effort, the commission will invite public participation.**

The EPA recommended that in the section on the ETR program, where reference is made to the recent federal legislation (House Resolution (HR) 325) making ETR programs optional for states, the exact wording of the statute be used.

**Staff agrees. The wording will be revised as recommended.**

EPA commented that the section on ETR should include the substitute measure being used to make up the credit lost due to the cancellation of this program.

**The state is in the process of determining the substitute measure to be used to offset the 1.81 TPD attributed to the ETR program. This issue will not be resolved in sufficient time to meet the approval process deadlines established for this SIP revision. The state intends to provide this information to the EPA Administrator via the letter required by HR 325, requesting that the ETR provisions be removed from the SIP.**

LWV and an individual expressed concern about making the ETR program voluntary. Concern was expressed that a mandatory program was needed to provide the incentive for people to reduce vehicle trips and provide the necessary emission reductions.

**HGAC is actively developing and implementing a voluntary commute options program for the area, known as the Regional Commute Alternatives Program (RCAP). A public outreach effort is one of the major elements of this program and will provide continued emphasis on improving public awareness about what alternative commute options are available and the importance of using them. As a regional initiative, and because it is voluntary in nature, the program can realize several advantages over the previously mandated ETR program. For example, emphasis can now be placed on alternative commute options for any trips, regardless of who is driving, what the trip is for, or when it occurs. Additionally, the cost of participation will be minimal**

**because organizations may now adapt their efforts to what best suits their needs, while taking advantage of the RCAP program.**

An individual commented that the exact emission reductions associated with the voluntary trip reduction program, RCAP, were not identified in the SIP.

**RCAP is currently in development and not fully implemented. As a new voluntary program, exact levels of participation cannot be forecast. With this in mind, and there being no associated historical data to work with, actual emission reductions would be difficult to determine. Furthermore, SIP credits may only be claimed for programs that are enforceable. Finally, there is no requirement to identify emission reductions from this program in the SIP.**

An individual was concerned that the I/M Program proposed will not be equivalent to the I/M 240 test. He requested an accurate estimate of what emissions reductions would result from the proposed I/M program.

**Because of the very short time frames allowed by the NHSDA and EPA's proposed limited disapproval of the 1993 15% ROP SIP, the proposed 15% and Post-96 ROP SIP revisions contained a factor-based approach to estimating reductions from the I/M program. Since the proposal, more detailed modeling and estimation has been performed by the commission and the local metropolitan planning agencies in the affected areas. The estimated reductions are listed in the "Estimated Emission Reduction Tables" for each area. Further documentation can be found in Appendices 7-O and 11-D.**

EPA commented that the MOBILE5a emissions factors (for all areas) used for computation of the transportation control measures (TCMs) should be included in the SIP.

**The MOBILE5a emissions factors for all areas used for computation of the TCMs have been included in Appendix K of the 15% SIP and Appendix G of the 9% SIP.**

EPA requested additional documentation be provided on how high occupancy vehicle (HOV) emissions reductions have been calculated for Dallas.

**Appendix K of the current 15% SIP for the DFW area includes a methodology for calculating emission reduction from HOV lanes. Also included are equations for other transportation control measures adopted in the SIP, e.g., transit improvements, intersection and signalization projects, bikeways, park-and-ride facilities, and incident detection equipment. This documentation will be maintained in the revised SIP for the DFW area in Appendix K.**

EPA commented that the compressed natural gas (CNG) facilities can not be used as TCM credit in the El Paso SIP. If the alternative fuel has been used for the emission reductions benefit, the program should be identified as an alternative fuel program and emission calculation should be prepared accordingly.

**TCM credit has been taken for the CNG refueling facility in the El Paso SIP. Emission reduction credits are not based on alternative fuels. They are based on a reduction in vehicle miles traveled by Sun Metro buses as they travel from their routes to a refueling facility. The CNG facility is more centrally located than the Sun Metro maintenance yard and allows buses to drive fewer**

**miles to refuel. The location of this facility reduces bus VMT by 6,020 miles per day and results in reduced emissions for VOC, CO, and NO<sub>x</sub>.**

EPA states that the methods used for calculation of TCM emission credits should be consistent for all areas.

**The TCM calculations follow similar methodologies in each area. Minor differences exist in procedures used to estimate delay or speed changes. These are due to differences in travel model outputs (time delays versus idle time). Although differences in terminology appear in the examples in the 15% SIP Appendix K and the 9% SIP Appendix G, the results are very similar.**

EPA commented that the Houston area has listed “Miscellaneous” as a TCM and has taken emission reductions. Under the TCM requirements, emission credits can not be given unless the projects are specifically identified in accordance with Clean Air Act Section 108(f).

**The commission has removed the Miscellaneous emission reduction credit taken in the 9% SIP for the HGA area. This is further reflected in the 9% SIP Appendix G.**

An individual commented that the transportation plans are adding additional freeway lanes to make vehicle emissions worse and encourage more driving, not less.

**The Transportation Improvement Program (TIP) and the long range Metropolitan Transportation Plan (MTP) process has identified those transportation facilities that need to be expanded to accommodate current transportation needs, as well as the needs in the future. The congestion**

**management system and the major investment studies are used to determine existing and future demands and the alternative modes of transportation.**

**Although there is freeway expansion, the TIP and the MTP have shown to meet local, state, and federal requirements through the transportation conformity process, requiring that transportation projects conform to the SIP and thus do not have a harmful effect on the air quality in the HGA area. The purpose of transportation conformity is to eliminate or reduce the severity and number of violations of the National Ambient Air Quality Standards. The TIP and MTP have been consistent with these guidelines.**

An individual commented that the HOV lanes in Houston have declining ridership, that park and ride lots are less than 50% full, and that bus ridership is falling.

**According to METRO, the Metropolitan Transit Authority for the Houston area, the “park and ride lots are constructed to provide space for forecasted future demand.” The park and ride lots are used in conjunction with the HOV lanes to encourage not only bus ridership but also vanpool and carpool ridership. Both programs work to increase passenger occupancy rates and to reduce trips and associated congestion.**

**METRO adjusts the required carpool occupancy according to current demand, which is consistent with the goal of reducing vehicle trips and congestion. This may give a perception of occasional loss of HOV ridership but in fact is responding to HOV facility demand.**

The EPA commented that Texas has based the increase in rule effectiveness (RE) in part on a realignment of commission resources to increase Regional and Enforcement personnel, and that these shifts and additions should be documented. Additionally, EPA commented that Texas has committed to determine in-use control efficiency as a replacement for an RE value. Therefore, EPA believes that Texas should provide information on how these studies will be performed and a schedule showing when the commission will conduct these studies to confirm the projected effectiveness of the rules.

**The assumptions for how the commission calculates RE are not addressed in any of the SIP revisions which are a part of this package. The EPA RE guidance document, Guidelines for Estimating and Applying Rule Effectiveness for Ozone/Carbon Monoxide (CO) State Implementation Plan Base Year Inventories, includes an addendum which describes the flexibility allowed in accounting for RE and provides a list of specific criteria that must be met when deviating from the approved methods. The commission utilized this guidance and developed an alternate RE methodology. EPA's subsequent approval of this methodology indicates that EPA considers the commission's approach to be at least as accurate as EPA's default RE methodology. States were supposed to perform a Stationary Source Compliance Division study or other study to confirm the results of alternative RE projections. EPA has recognized the difficult and time-consuming nature of performing such a study, and attempted for a time to design an alternate protocol. EPA was unable to reach consensus with states on this protocol, and, as far as the state knows, has ceased efforts on this project. The state will continue to work with EPA at their request to design an acceptable protocol for an RE demonstration, but is not prepared to undertake a study without appropriate guidance from EPA, and an indication that other states, particularly California, are subject to the same stringent requirements.**

**In response to EPA’s question about the staff increases in the field offices, the number of state air program investigators in the regional offices has increased by approximately 10% since 1990, and is projected to increase an additional 30-50% over the next three years as part of the commission’s efforts to implement the provisions of the Title V program, and as part of their ongoing effort to realign and decentralize compliance and enforcement staff. Additionally, there has been an increase in local air program staff since 1990 in four out of the five city/county programs.**

EPA commented that the commission should provide a detailed calculation for BPA and for ELP for changes to the Auto Refinishing emissions inventory category.

**The methodology used and the documentation of the data sources were sent to EPA with the state’s 1993 periodic inventory documentation. Another copy has been forwarded to EPA under separate cover.**

EPA also commented that the commission should provide a justification for why the projections can be extended to the BPA and ELP areas.

**The coatings usage data is based on nationwide data and proportioned out evenly per capita. The amount of VOC in the materials used is based on survey data collected by the commission from national manufacturers. The amount of thinner/reducer, hardeners/catalyst and “clean-up” solvents used is based on data collected by the commission from paint & body shops located in all non-attainment areas in Texas (including the BPA and ELP areas).**

EPA commented that emission reductions for the general vent gas rule are based upon the assumption that all vents in the EI are covered by the rule. However, some vents will be exempt from the rule due to having low emissions or being very dilute, although the emissions from these streams are expected to be small in comparison to those vents which require control. EPA stated that with the current EI the commission cannot differentiate the emissions of the vent streams that are controlled and those that are not controlled. EPA requested confirmation that the emissions from uncontrolled vents cannot be quantified and stated that these emissions should be quantified through either a study or a revised EI questionnaire.

**The EI includes short-term (pounds per day) and long-term (tons per year) emission data, but not the concentration. A vent gas stream can be exempted from control requirements by having either a low mass emission rate or a low concentration. Because the concentration is not included in the EI, it is not currently possible to determine which vents are exempt from the vent gas rules and which are not. A determination study of the individual vents at this time is impractical due to the sheer volume of vents. Revising all the necessary components of the emissions inventory (particularly electronic reporting and QA/QC systems) may be impractical for the 1996 EI. However, the TNRCC commits to conducting an appropriate study, such as a supplemental inventory or a sample survey of accounts, to quantify the emissions from uncontrolled vents.**

An individual commented that many violations of Chapter 115 surface coating rules occur and that the regulated community is unaware of the regulations.

**The commission acknowledges that violations of Chapter 115 rules do occur. However, emission reduction calculations are adjusted using rule effectiveness to account for noncomplying facilities.**

**In order to inform the regulated community of the commission's regulations, the commission has conducted and will continue to conduct public outreach events in various locations throughout the state.**

An individual stated that he is unaware of any concerted effort by the commission and local programs to enforce the Chapter 115 architectural coating rules.

**Chapter 115 architectural coatings rules are enforced by field office investigators as routinely as all other Chapter 115 rules.**

An individual stated that many auto body shops are unaware that they must register for and abide by standard exemptions and that these body shops use noncompliant coatings.

**Standard exemption (SE) 124 was developed to provide auto body shops with an alternative to undergoing case-by-case air permitting. Not all body shops utilizing SE 124 are required to file Form PI-7 to register with the commission. Specifically, facilities which include spray operations that use less than one half pint of coatings and solvents per hour are exempt from registering for SE 124. Also, not all body shops operate under SE 124. Many body shops are either grandfathered from air permitting requirements or operate under permits, previous standard exemptions, or special exemptions.**

**The Chapter 115 vehicle refinishing rules apply in the DFW, ELP, and HGA ozone nonattainment areas, regardless of air permit status. Also, any body shop operating under SE 124, regardless of location, must utilize coatings which meet the Chapter 115 vehicle refinishing limits. On April 30,**

**1996 (Federal Register, page 19005) EPA proposed a national rule which will regulate auto refinishing coatings at the manufacturing level. As proposed, this national rule will ensure that only compliant coatings will be available for purchase by auto body shops.**

An individual stated that in his opinion VOC emissions from auto body shops have not decreased 47% from 1990 to 1993.

**The revised estimate of vehicle refinishing emissions is based upon an intensive survey of auto body shops as part of the commission's Bottom-up Emissions Inventory Project. The reduction in emissions is due to improved quality of original equipment manufacturer new auto coating applications in the 1980's, replacement of conventional air atomization spray guns with high-volume low-pressure spray guns (which have a much higher transfer efficiency than conventional air atomization spray guns), improved coating formulations which require less paint to do the same job, and a decrease in the average size of cars being repainted. The commission believes that the Bottom-up Emissions Inventory Project has resulted in a much more accurate emissions estimate than the initial estimate based upon top-down methodology.**

An individual stated that the RE credits that can be obtained from certain changes do not mean that such changes and reductions actually occur. As an example, the individual stated that he has not noticed more inspectors at the local level and does not see any benefit to having clearer rules if the regulated community is unaware of the rules. The individual stated that the commission does not have an effective education program ongoing to alert businesses to its responsibilities.

**The commission disagrees. The number of state air program investigators in the regional offices has increased by approximately 10% since 1990, and is projected to increase an additional 30-50% over the next three years as part of the commission's efforts to implement the provisions of the Title V program, and as part of their ongoing effort to realign and decentralize compliance and enforcement staff. Additionally, there has been an increase in local air program staff since 1990 in four out of the five city/county programs.**

**The commission agrees that the regulated community must be aware of the regulations in order to benefit from clearer rules. As noted previously, the commission has conducted and will continue to conduct public outreach events in various locations throughout the state in order to inform the regulated community of the commission's regulations.**

An individual objected to the premise that the commission protocol for determining RE is better than EPA's. The individual also stated that most companies do not have continuous monitoring data since no real monitoring is required for them.

**The EPA RE guidance document, Guidelines for Estimating and Applying Rule Effectiveness for Ozone/CO State Implementation Plan Base Year Inventories, includes an Addendum which describes the flexibility allowed in accounting for RE and provides a list of specific criteria that must be met when deviating from the approved methods. The commission utilized this guidance and developed an alternate RE methodology. EPA's subsequent approval of this methodology indicates that EPA considers the commission's approach to be at least as accurate as EPA's default RE methodology. The individual's assumption that continuous monitoring data is necessary to substantiate an RE greater than the 80% default is erroneous. In fact, EPA allows**

**an RE of 100% when a direct determination of emissions is made, a continuous emissions monitoring program is implemented, or an irreversible process change is made which eliminates the use of VOCs.**

An individual commented on the commission's upset/maintenance requirements (§101.7 and §101.8) and stated that very little is done to thoroughly investigate each upset/maintenance notification and ensure that corrective action is taken so that such situations are not repeated.

**Upset and maintenance notifications are prioritized and investigated as appropriate by commission regional staff, and enforcement action is taken as necessary. The commission's Engineering Services Section is currently reviewing the upset/maintenance rules for potential revisions which would strengthen the enforceability and readability of these rules.**

An individual stated that EPA has not yet developed regulations for AIM coatings and that taking credit for the AIM rule is premature at best and dishonest at worst.

**The commission disagrees with the individual and notes that EPA proposed a national rule on June 25, 1996 which will regulate 55 categories of AIM coatings at the manufacturing level. A March 7, 1996, EPA memo from John Seitz, Director, Office of Air Quality Planning and Standards, advises that despite delays in the rule proposal and final compliance date "... the overall reduction estimate for the rule remains at 20%" and that "...States may still claim credit for the 20% reduction from the rule in their 15% Rate-of-Progress Plans." This memo further states that "However, if the EPA rule does not provide a 20% reduction, any State claiming credit from the National rule will be responsible for developing measures to make up the shortfall."**

ASA commented that the paint and body industry “will be seriously impacted in the negative direction with the implementation of the SIP.”

**The commission disagrees with the commenter. The commission’s vehicle refinishing rules were developed in 1992-1993 by the Auto Body Shop Task Force. This task force included the commission and representatives of auto body shops, coating manufacturers, and trade associations (including ASA). The vehicle refinishing rules which were adopted on November 10, 1993, represent the consensus of the task force and are an integral part of the SIP for DFW, ELP, and HGA.**

EPA stated that the RE improvements table for BPA, Table 23, refers to Dallas and Tarrant County for Tank Trucks in Transit.

**The commission agrees with EPA and has corrected this mislabeled category.**

EPA commented that the 1996 HGA inventories for floating and fixed roof storage tanks have respectively increased from 50.13 to 70.11 TPD and from 12.09 to 25.65 TPD, between the May 1994 submittal and this proposed revision. EPA also questioned whether these changes were accounted for in the 1990 point source inventory.

**The commission concurs with EPA that a change in the inventories for floating and fixed roof tanks has occurred. Shortly after the May 1994 submittal, the Emissions Inventory Section of the Air Quality Planning and Assessment Division completed a thorough evaluation of the 1990 point source inventory and discovered that several Standard Industrial Classification (SIC) codes were**

**misplaced under the wrong emission categories. This quality assurance effort has resulted in significant changes to some emissions categories, such as floating and fixed roof storage tanks, but without affecting the total 1990 point source inventory. The exercise was a realignment of SIC codes under proper emissions categories. The new EI numbers presented in this submittal are the most accurate and reflective of actual emissions from these categories.**

EPA stated that Table 20 for ELP is mislabeled DFW.

**The commission agrees with EPA and has corrected this error.**

EPA commented that there should be no emission reduction credits taken for the sheet, strip, and coil area source category because this category has been removed from the inventory.

**The commission agrees with EPA and has revised the emission reduction calculation tables for HGA and DFW to eliminate any credits from this category.**

EPA noted that Table 21 for ELP should reference low Reid Vapor Pressure in lieu of reformulated gasoline (RFG) as the appropriate fuels measure.

**The commission agrees with EPA. RFG is not currently implemented in El Paso and there are no emission reduction credits associated with this measure. The credits presented in Table 21 are intended for I/M and Federal Motor Vehicle Control Program Tier I only. The commission has eliminated any reference to RFG in Table 21.**

EPA questioned using 90% control efficiency for industrial wastewater. EPA pointed out that the commission's wastewater rule does not call for 90% control for all affected streams. The rule only calls for control down to the applicability level of 1000 ppm. Therefore, affected wastewater streams with low concentrations would not achieve 90% control. EPA also indicated that even if affected streams are controlled, some wastewater streams, those with flowrates under 10 liters per minute or with concentrations less than 1000 ppm, would be exempt from the regulation, resulting in an overall control efficiency of less than 90%.

**The commission agrees with EPA that the state's rule does not specifically call for 90% control of all affected streams. However, the commission believes that the rule will achieve the credits projected for it in the SIP. The commission's industrial wastewater rule was modeled after a draft Control Techniques Guidelines (CTG) for industrial wastewater, which was in turn modeled after the proposed Synthetic Organic Compound Manufacturing Industry (SOCMI) Hazardous Organic National Emissions Standards for Hazardous Air Pollutants (HON) rules. The draft CTG specifically allow an affected facility, prior to the compliance date, to modify its processes to alter the characteristics of affected wastewater streams in an attempt to exempt as many of these streams as possible. This flexibility is provided because it is not cost effective to control wastewater emissions by controlling all affected wastewater streams including those with low VOC concentrations. A process adjustment where more VOC is routed to fewer streams would result in a rule implementation that is more cost effective, yet achieves the same level of reductions. EPA took this approach a step forward when it introduced the concept of emissions averaging under the final SOCMI HON rules. Anticipated emission reductions may be achieved by overcontrolling affected streams with high flowrates and VOC concentrations and either undercontrolling or leaving affected streams with low flowrates and/or VOC concentrations**

uncontrolled. EPA has long indicated that the final CTG for wastewater, if it ever gets finalized, will include requirements that mirror those of the final SOCFI HON rules. The commission, therefore, anticipates that the emissions averaging concept will also be incorporated in the final CTG for industrial wastewater. While the commission realizes that the state rule, which requires control to just below the exemption level, is not identical to the HON, which allows process adjustment and emissions averaging to exempt or reduce the required control efficiency of some wastewater streams, the commission believes these approaches will result in essentially the same outcome. None of these approaches specifically mandate 90% control of all streams. From a practical standpoint, it is highly unlikely that a wastewater stream with low flowrate and/or low VOC concentration would ever be controlled because it is not cost effective to do so. It is a common fact that control devices achieve higher control efficiencies when the concentration of target pollutants is higher. These streams with high VOC concentrations will be the target of controls with both the state rule and the HON. Therefore, it is the commission's assessment that the state's rule would be effective in achieving the projected overall level of control.

Although the commission used a 90% control efficiency in the calculations of industrial wastewater reductions, this is only an estimate. The actual control efficiency could range between 80-90%. The overall control efficiency is the product of the control efficiency and the rule effectiveness. The commission used an 80% rule effectiveness in the calculations, although the actual rule effectiveness could also range between 80-90%. The overall control efficiency is, therefore, 72%. At the midpoint, with the control efficiency and rule effectiveness both 85%, the overall control efficiency of the rule is also 72%. The control efficiency takes into account the rule's control requirements and exemptions. The draft CTG for industrial wastewater, which employs similar exemptions, estimates an overall percent control reduction of 85% for the chemical industry and

**83% for the refinery industry. Therefore, the commission is not trying to claim the full credit that the draft CTG would project. Even with a 90% RE, which the state is expecting to be achieved as a result of implementing the Compliance Assurance Monitoring (CAM) rules, the overall control efficiency anticipated by the commission would still be less than that assumed in the draft CTG. The reason for the high estimate of the overall control efficiency in the draft CTG is that the control devices available to be installed generally achieve control efficiencies much higher than 90%. For example, a properly designed steam stripper may achieve as high as 99.9% control efficiency. Likewise, an air stripper and a well operated biotreatment basin may easily achieve 95% control. These types of high-efficiency control devices will be used to comply with the state wastewater rule. Therefore, the commission disagrees with EPA that due to the presence of exemption levels, the adjusted overall control of 72% could not be achieved.**

**There is always some uncertainty associated with categorical emission reduction estimates. The commission commits to re-evaluating the 1996 industrial wastewater point source emission inventory to confirm that the level of emission reductions it has projected for the category is achieved.**

The EPA commented that no credits may be taken for RE improvements beyond 90%, consistent with EPA enhanced monitoring RE policy guidance. The EPA also added that any RE credits must be limited to point sources and not to area sources since the CAM rule will apply to major sources only. Since the CAM rule will be implemented under Title V, EPA commented that credits from only those categories that are expected to receive Title V permits by 1999 must be identified. Any reductions taken for RE improvements beyond 90% must be confirmed through a determination study.

The EPA required that the 1990 EI be adjusted for the percent of the time when control devices are either not operating or out of compliance. The EPA required the use of an 80% RE as a default or that a study be conducted to determine the appropriate RE for specific emission categories. Some states, such as California, were able to convince EPA that their rules are structured and enforced well enough that adjustments to the 1990 EI are not needed. Texas, however, had decided to take advantage of the second option, where a study was conducted to determine the appropriate RE for each emissions category. The study focused on analyzing current and future staffing resources, existing regulations and whether the source is permitted under new source review or grandfathered, and the typical control devices used for compliance under each emissions category. The effort has resulted in the development of appropriate RE estimates for all emissions categories, ranging between 60% to 98%.

In December 1994, EPA issued a policy guidance indicating that states may now use an RE of 90% as a result of implementing the enhanced monitoring rules. This is a 10% RE improvement beyond the 80% assumed default. Since Texas' study did not include the implementation of enhanced monitoring or the CAM rules, the commission believes it is appropriate to project a 10% RE improvement beyond the estimates developed by the RE study. While this may result in RE estimates exceeding 90% for some categories, other categories would have RE estimates less than 90%. For example, VOC water separators would have an RE estimate of only 75% while others such as metal coils, metal furniture, appliances, surface cleaning, and graphic arts would have an RE estimate of 85%. The commission believes the 10% RE improvement is appropriate and consistent with the progress the commission is undergoing to make its rules more effective and enforceable. The commission also disagrees with EPA that a determination study must be conducted to ensure that these emission reduction credits are going to occur. The commission

believes, however, that the implementation of Title V and the annual certifications that will be required in compliance with Title V, would go a long way toward providing enough justification for the CAM RE credits. It is difficult to conduct a determination study to confirm RE credits, and the 80% RE default was selected arbitrarily to begin with. The EPA has never conducted any determination studies to confirm that the 1990 EI for each category must be inflated by a certain amount, because determination studies are difficult to conduct. This is why EPA allowed states to use an average default of 80% RE. A determination study for a rule to confirm RE credits requires that emission reductions be demonstrated from an inflated inventory, which may not exist in reality, if the rule was 100% effective to begin with.

The commission agrees with EPA that the majority of emission points which are classified as area sources are not major sources and therefore would not be subject to the CAM rule. However, the commission believes that there are a few major sources that are not reporting their emissions to the point source data base and therefore, would be required to obtain Title V permits. The emissions from these major sources, if existing, would represent significant portions of the total area EI. Therefore, an RE credit would be appropriate for these sources. However, since it is not clear how many of these area source categories do in fact have major sources, the commission has decided to agree with EPA to limit the RE improvement credits to point sources only. The commission, however, reserves the right to reverse its position if it determines the existence of major sources in some of the area source categories. The commission has modified its CAM RE improvement approach to limit its applicability to point sources. Furthermore, the commission agrees with EPA that CAM RE improvement credits will eventually be limited to those sources that are required to obtain Title V permits.

EPA commented that the emissions reduction credits claimed for floating roof tanks RE improvements seem excessive. EPA asked for explanations as to how these credits and growth were determined and the appropriate control efficiency used in the calculation with documentation supporting that assumption.

**The commission had previously claimed 88% RE for storage tanks, based on a study conducted in 1991 by Pacific Environmental Services Inc.. This study, which was based on a survey of 405 storage tanks, showed that the implementation of the storage tank rule was effective in achieving the necessary emission reductions.**

**The storage tank rule requires visual inspection of all secondary seals. For tanks that have vapor-mounted primary seals, however, physical inspection must also be conducted for the secondary seals. It was decided that higher RE may be assumed if a methodology is developed to account for unreported emissions that result from secondary seal failures. The commission developed this methodology and incorporated it in the storage tank rule, adopted on January 4, 1995. The rule revision now requires that all emissions resulting from seal gap failures be quantified and reported to the commission in the annual emissions inventory reports. The RE improvement from 88% to 95% was a result of this rulemaking which established a requirement to quantify and report emissions resulting from noncompliance.**

**The emission credits are calculated based on a control efficiency of 95%. An analysis of the 1990 point source data base revealed that many affected storage tank facilities have reported 95% control efficiency in lieu of the previously assumed 61.9%.**

EPA commented that controls for existing landfills are not due to be installed until the year 2000, and that the commission must either provide for an accelerated compliance schedule or adjust the amount of reductions contained in the 9% SIP. EPA also commented that the commission should use the design capacity and emissions reports due by June 12, 1996, to verify the 80% rule penetration assumption used in the calculation of emission reduction credits.

**The commission disagrees with EPA that controls for existing landfills will not be implemented until the year 2000. The New Source Performance Standards and Emission Guidelines for new and existing Municipal Solid Waste landfills were adopted on March 1, 1996, and published in the Federal Register on March 12, 1996. In compliance with the Emission Guidelines requirements, the commission is currently working on a state plan to control existing landfills, due to be completed by December 12, 1996. The commission anticipates that the state plan will have a three-year compliance schedule, with a final compliance date of December, 1999. The commission believes it is appropriate to claim emission reduction credits from the landfills rule.**

**The commission disagrees with EPA that the design capacity and emissions reports due by June 12, 1996, may be used to verify the 80% rule penetration assumption used in the calculation of emission reduction credits. These reports are only required for new and modified landfills. The state plan will control emissions from existing landfills including those that have closed after 1987. The capacity and emission reports under the state plan will not be due until June 1997. It is too early to determine how many of these existing landfills will be required to install controls and the percent of the total emissions they represent. Based on the information we currently have available, the 80% rule penetration continues to be a reasonable assumption considering the fact that the largest landfills are located in ozone nonattainment areas.**

EPA commented that the commission should move quickly to adopt rules controlling existing landfills in order for these credits to be approved as part of the phase I submittal under the March 2, 1995, Mary Nichols policy memorandum.

**The commission is moving quickly to adopt a state plan that controls emissions from existing landfills. This plan is expected to be proposed by July 1996, with an adoption planned for December 1996.**

An individual noted that the percentages and TPD figures on page 113 are different from those on page 84, Table 25. The commenter asked that this inconsistency be corrected.

**The commission agrees with the individual and has corrected this inconsistency.**

An individual objected to the EI adjustments to the outboard motor and lawnmower categories. He stated that the adjustments are inappropriate because ozone exceedances occur on weekends, and that these emissions do not just disappear even if they are reallocated to the weekend.

**The 1990 base year EIs for each ozone nonattainment area were conducted in accord with requirements established in EPA guidance documents. The intent of such guidance documents was to ensure that all state and local air pollution agencies followed the same procedures in preparing inventories, thus assuring a level of quality and comparability across states. One of EPA's guidance documents is titled Guidance for Initiating Ozone/CO SIP Emission Inventories Pursuant to the 1990 Clean Air Act Amendments, February 1990. Section 3.7, Temporal Basis of Emissions, in the guidance document mandates, "The temporal bases on which emissions must be**

**expressed for 1990 base year inventories under the FCAA are the same as those used under the Post-1987 Policy. For ozone inventories, VOC, NO<sub>x</sub>, and CO emissions must be determined and expressed on an ozone season daily basis. The daily basis should reflect a typical weekday operation during the peak ozone season months (usually June - August).” The commission demonstrated through surveys and analysis that certain percentages of emissions did, in fact, occur on the weekend. After making such demonstrations, and with the concurrence of EPA Region VI staff, the emissions for certain categories of Recreational Marine and Lawn and Garden Equipment were adjusted. Adjustments have only been made in those categories for which the survey work was done to demonstrate that an adjustment was appropriate.**

EPA stated that there is a discrepancy in ELP nonroad data. In the submittal, Table 10, page 29, and Table 16, page 55, nonroad emissions are shown as 10.46 tons per day (TPD). In the EI summary, Table 9A, page 55 and Table 11, page 65, show nonroad emissions as 10.99 TPD. The 10.99 appears to be correct. The 10.46 is for other small engines and does not include aircraft and rail emissions.

**The commission agrees with the comment. The emissions that were in Tables 10 and 16 are the emissions for only a subset of nonroad categories sometimes referred to as, “Other Small Engines,” and do not include the emissions for aircraft and locomotives. The total VOC TPD (10.99) will be inserted in the applicable tables.**

EPA commented that the “Other Special Purpose Coatings” category was deleted from the DFW and ELP inventory summaries on page 12 of the EI summary document, but was included in the detail. For DFW, it was in the projections and credits.

**The commission agrees. The table on page 12 of the EI summary document may be confusing. The table included the Other Special Purpose Coatings category for both DFW and ELP to indicate to the reader that the same categories were considered across all four nonattainment areas. There was no change in the emissions for this category in these areas. The commission used "N/A" to represent this, which may have confused some readers. The detail contained in Table 3-1 for each nonattainment area is correct.**

EPA commented that only those aspects of the 1990 base year on-road mobile source emission inventory calculation for which new information has become available and for which a change is supportable and documented should be included as a part of the revision. Furthermore, EPA stated that vehicle miles traveled (VMT) calculations should be based on EPA guidance which includes using the Highway Performance Management System (HPMS). Therefore, EPA requested clarification on the following elements of the revision of the 1990 Base Year Emissions Inventory: page 23 Transportation Network Updates, page 24 Beaumont/Port Arthur and El Paso SIP Inventory Method Updates, and page 25 Methodology for Final Update Submittal. These issues are all related, and will be addressed together.

**With respect to the inventory methodology change for the 1990 base year for BPA and ELP nonattainment areas, commission support for the methodology update is based upon the current inconsistency in the methodologies used in the conformity analysis. Currently, the conformity budget for on-road mobile sources is calculated using the 15% and 9% SIP inventories which use a facility level EI methodology. The conformity analysis, as required, uses a link level EI methodology. While both methodologies are correct, it is known that the estimated emissions are consistently different depending on the methodology used. In order that any artificial difference**

**between the conformity budget and the conformity analysis associated with the differences in the inventory methodology may be eliminated, the commission chooses to use this opportunity to make the 15% and 9% SIP inventory methodology consistent with the methodology required for the conformity analysis.**

**The EPA expressed concern about the statement “the emission estimation methodology... will be updated from the HPMS facility type/24 hour analysis to a link based/time-of-day analysis.” This statement was not meant to imply that the new methodology would not be consistent with HPMS. It meant that emissions would be calculated at a link level rather than a facility level. The HPMS was meant as an adjective to describe the facility types used for link aggregation. Also, the network VMT for the BPA and the ELP nonattainment areas will be made consistent with HPMS as part of the emissions calculation methodology.**

EPA commented that the following source categories had seemingly excessive growth:

(Excerpt from Table 17 From the 1993 15% ROP SIP)

<b>Point Source Category</b>	<b>1990 Tons Per Day</b>	<b>1996 Tons Per Day</b>
Auto, New	2.63	5.00
Gasoline Plants	.72	1.47
Gasoline Terminals	2.91	9.83
Graphic Arts	4.95	9.15
External Floating	.23	.65

Similarly, on Table 20 for El Paso, Gasoline Terminals and External Floating Roof Tanks are shown to have very high growth. Also, external floating roof tank emissions in the Houston and Beaumont RE emission reductions Table are projected to show very high growth in emissions. EPA requested that the commission confirm that numbers for the 1990 inventory and the 1996 inventory for these categories in these tables are correct.

**The commission has reviewed the spreadsheets containing the original emissions and has re-applied the growth factors (which were developed using the Economic Growth Analysis System (EGAS)). The projected emissions using this methodology are accurate.**

EPA commented that they are concerned about the area projections, because all show declines from 1990 to 1996, although they believe current population statistics to be increasing. EPA commented that they recognize that some categories have realized reductions through improved practices. The EPA

requested that the commission document the reasons for the decline in emissions. In addition, they requested any new growth factors used which are different from those used in the 1994 submittal, and the growth factors used to develop the 1999 projections.

**The sources of growth factors used in projecting the area source inventory are essentially the same as those reported in a commission document titled, “1990 Rate-of-Progress Base Year Ozone Emission Inventory Summary Tables and Report of Growth Factors Used for 1996 Projections,” which has been provided to EPA. For Area Sources, those sources are primarily from BEAFAC (an EPA-provided economic forecasting model), occasional use of population growth as a factor, or other specific information about the activity level in the category, as reported by an authoritative source. In general, though, it should be pointed out that the factors from BEAFAC do not show the same level of growth that population change does when used as a growth factor. However, the commission will continue to work with the EPA Region VI office to provide further documentation.**

EPA commented that the final plan submittal must include the revised mobile source input and output files that relate to the 1990 baseline emissions, the 1990 adjusted EI, and the projected reductions from control strategies.

**All mobile input and output files will be included in the final submittal. The files will include all MOBILE files associated the updated base year and adjusted base inventories for the BPA and the ELP nonattainment areas, and all MOBILE files associated with the calculation of projected reductions from control strategies for all four Texas nonattainment areas.**

The City of Dallas commented that they disagree with the growth factors used to project the point source inventory.

**The factors that the commenter referred to in their letter are the output of the EPA model called EGAS. The commission will be developing a Texas-specific enhanced economic forecasting model for future inventory and SIP development. The commission believes that these revised growth factors may be available to be used for any projections made from the 1996 Periodic Inventory, which is the next required inventory submittal, and which will be submitted in 1998.**

EPA commented that the national architectural and industrial maintenance (AIM) coatings rule will not apply to the EI category “other product coatings” because “other product coatings” are applied in manufacturing settings rather than in the field.

**EPA was initially unable to identify which specific activities were included in the emission factor for this category. However, EPA eventually located the source document for the original emissions estimates and identified examples of “other product coatings” as coatings used on concrete products, photographic equipment, toys, and sporting goods. The commission agrees that “other product coatings” generally will not be regulated under the EPA’s AIM coatings rule and have deleted the estimated emission reductions associated with this category from Tables 18, 21, 24, and 27.**

EPA commented that EI credits and projections should be adjusted due to the 1990 EI adjustment for vessels with outboards category.

**The commission agrees with EPA and has made the recommended change.**