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APPENDIX

A  Federal Register Part VII, U.S. Environmental Protection Agency, 40 CFR Part 51, Inspection/Maintenance Program Requirements; Final Rule, dated November 5, 1992 (EPA's Final I/M Rule) and subsequent amendments

B  Texas Health and Safety Code, Subtitle C, Air Quality, Revised May 12, 1992 (THSC) and subsequent amendments

C  House Bill 1969 by 73rd Legislature amendment to the Texas Health and Safety Code §§382.037, 382.038, and 382.039

D  Texas Natural Resource Conservation Commission (TNRCC) (30 TAC Chapter 114), Control of Air Pollution From Motor Vehicles, Revised November 10, 1993 (TNRCC Rules) and subsequent amendments

E  TNRCC Chapter of the 1993 Appropriations Bill


H  Texas Department of Transportation (TxDOT), Chapter 17. Division of Motor Vehicle Verification System (43 TAC §17.80) adopted by the Transportation Commission on October 28, 1993 and subsequent amendments
TECHNICAL SUPPLEMENT

The TNRCC, "Basic and Enhanced Performance Standards" and the TNRCC Modeling Inputs for Proposed I/M Programs, dated February 16, 1994
B. OZONE CONTROL STRATEGY

1.-7. (No change.)

8. MOBILE SOURCE (Amendments)

The Federal Clean Air Act (FCAA) Amendments of 1990 authorized the U.S. Environmental Protection Agency (EPA) to designate areas failing to meet the National Ambient Air Quality Standard (NAAQS) for ozone as nonattainment and to classify them according to severity. The four areas in Texas and their respective classifications include Houston/Galveston (severe), Beaumont/Port Arthur (serious), El Paso (serious), and Dallas/Fort Worth (moderate). Programs to control mobile source emissions are required in those areas to contribute toward mandatory reductions and attainment of the standards.

a. Vehicle Inspection/Maintenance (I/M) Program

Texas was required to submit a revision to the State Implementation Plan (SIP) for each area no later than November 15, 1993 which included an I/M program to control emissions from motor vehicles. Inspection and maintenance programs were already in place in Harris, El Paso, Dallas, and Tarrant counties, but the FCAA Amendments required substantial enhancements to the existing programs. A basic program, as outlined in the FCAA Amendments in
§182(a)(2)(B)(ii), is required in marginal and moderate ozone nonattainment areas or in serious, severe, or extreme ozone nonattainment areas with an urbanized population less than 200,000. An enhanced I/M program is required, as outlined in the FCAA Amendments in Section 182(c)(3), in areas which are classified as serious, severe, or extreme ozone nonattainment areas and have an urbanized population of 200,000 or more.

The I/M program will reduce hydrocarbon emissions, which include volatile organic compounds (VOC), that react with nitrogen oxides (NOₓ) to form ground level ozone. Ground level ozone is an irritant to the lungs, and especially impacts children, older citizens, and others that may have decreased lung capacity. Ozone contributes to lower crop yield. Some hydrocarbon (HC) emissions include VOC such as benzene, formaldehyde, and 1,3-butadiene, which are air toxins. They cause cancer and have other adverse health effects.

The I/M program will reduce carbon monoxide (CO), which interferes with the oxygen-carrying capacity of the blood. Exposure aggravates angina and other aspects of coronary heart disease, and decreases exercise tolerance in persons with cardiovascular problems. Infants, fetuses, elderly persons, and individuals with respiratory diseases are also particularly susceptible to CO poisoning. I/M programs will reduce CO emissions. The I/M
program will reduce NO$_x$, including nitrogen dioxide (NO$_2$) and nitrous oxide, which irritates the lungs, lowers resistance to respiratory infections, and contributes to the development of emphysema, bronchitis, and pneumonia. NO$_x$ contribute to ozone formation (ground level) and visibility degradation, and can also react chemically in the air to form nitric acid. NO$_x$ reductions will be achieved in enhanced I/M programs; basic I/M program areas are required to implement programs that result in no NO$_x$ increases.

On November 5, 1992, EPA published the final rules for I/M programs; [See Appendix A; Federal Register Part VII, EPA, 40 CFR Part 51, I/M Program Requirements; Final Rule (EPA's Final I/M Rule)]. These rules establish performance standards and other requirements for basic and enhanced in-use vehicle I/M programs.

On November 10, 1993, the Texas Natural Resource Conservation Commission (TNRCC) adopted I/M SIP revisions which were intended to satisfy the requirements for all new and existing I/M program areas based on compliance with performance standards established by EPA. The I/M model years requirements for enhanced areas included high-tech testing for 1990 and newer model years for the first two years of emissions testing. In Houston, high-tech testing was to be extended to 1986 and newer model years for following test years. Public hearings were held during the week
of August 23-26, 1993, regarding proposed SIP revisions for the vehicle I/M program in ozone nonattainment areas.

The EPA presented testimony stating that the coverage of additional model years by high-tech testing or more stringent emissions standards than those recommended were necessary in the El Paso and Houston/Galveston areas to meet the enhanced I/M performance standard.

I/M SIP revisions were adopted February 16, 1994, and addressed EPA's concerns for the El Paso and Houston/Galveston areas by requiring high-tech testing beginning from the start of the program for the following: model years 1988 and newer in the El Paso area; and model years 1984 and newer in the Houston/Galveston area.

In addition, MOBILE5a model inputs needed revision in several areas in order for the I/M SIP to meet EPA's performance standards. Therefore, Technical Supplement I required revisions in the following additional areas: emission standards, CO threshold cutpoints, purge testing inclusion years, model-year coverages, pre-1981 model year stringency levels, compliance levels, and other miscellaneous areas.
This I/M SIP revision provides the following changes:

- makes several corrections and additions that are needed to allow EPA to find the I/M SIP in compliance with the requirements of the FCAA Amendments of 1990;

- removes the 25% emissions reduction requirement for minimum expenditure waivers;

- adds requirements for fleets to be in compliance by December 31 of the testing cycle year;

- adds a definition of military tactical vehicles;

- provides a grace period until January 1, 1995, for the requirement that waiver repairs be performed by a Certified Repair Technician Facility of Texas (CERFT);

- provides a 60-day time limit for repairing vehicles that failed an out-of-cycle test required from remote sensing identification;

- establishes a $25 annual certification fee for Certified Repair Technicians of Texas (CERTTs);
removes the requirement for the Plumbtesmo Test in the current I/M emissions test in Dallas and Tarrant counties beginning July 1, 1994, and in El Paso county beginning October 1, 1994;

- improves the hardship waiver eligibility requirements and establishes a separate rule §114.6;

- adds definitions and clarifying language that provides consistency between the SIP, 30 TAC §114.3, and the contracts for operation of inspection facilities; and

- excludes from the I/M program all vehicles that are registered with the TxDot as Antique Vehicles.

These SIP revisions are intended to satisfy the performance standards in all ozone nonattainment areas based on performance standards established by EPA. Performance standards and MOBILE5a model inputs adopted on February 16, 1994, have not been revised.

1) Applicability (Amendments)

a) General

The legal authority for the Texas Air Control Board (TACB) to implement the I/M program is in the Texas Health and Safety Code
(THSC), Subtitle C, Air Quality Control §§382.037, 382.038, and 382.039 (Appendix B) and by House Bill 1969, 73rd Legislature (Appendix C), which was signed by the Governor of Texas on June 14, 1993. Senate Bill 2 (Acts 1991, 72nd Legislature 1st C.S., Chapter 3, Section 1.086) established that the TNRCC became the designated air quality agency on September 1, 1993 when the TACB was merged into the TNRCC. To avoid confusion in this document, all actions taken by the agency prior to September 1, 1993, are referred to as TACB actions, and those actions taken after September 1, 1993, are referred to as TNRCC actions. The I/M program may be implemented and operated beyond the attainment date for maintenance of the ozone and/or CO standard in each nonattainment area. The TNRCC 31 TAC Chapter 114, "Control of Air Pollution From Motor Vehicles," contains I/M rules and regulations (Appendix D). The TNRCC has the authority in the THSC §382.037, to expand the geographic coverage of the program beyond urbanized area boundaries to include areas that contribute in a significant way to mobile source emissions inventory in the nonattainment area. Program boundaries for the I/M program will correspond with county boundaries.

All areas designated as marginal ozone nonattainment or moderate CO nonattainment with a design value of less than 12.7 parts per million (ppm), must continue operating existing I/M programs (that is, those operating as part of an approved SIP as of November 15, 1990) and must update those programs as necessary to
meet the basic I/M program requirements of Subpart S of the FCAA Amendments of 1990. In addition, such areas were required by the FCAA as amended in 1977, to have an I/M program and must implement at least a basic program.

Basic programs are required for nonattainment areas with moderate ozone or CO (less than 12.6 ppm) air pollution problems. The Dallas/Fort Worth area is a moderate ozone nonattainment area. The counties included in the Dallas/Fort Worth ozone nonattainment area and in the I/M program are Dallas, Tarrant, Denton, and Collin. While the Dallas/Fort Worth area requires only a basic I/M program, substantial evidence suggests that a more stringent I/M program will be necessary to enable the Dallas/Fort Worth area to meet the requirements of the federally required Rate-of-Progress (ROP) (or 15%) SIP. In addition, the Dallas/Fort Worth area will be required to meet the full enhanced I/M performance standard if the area is redesignated to a serious ozone nonattainment area. The proposed program may be upgraded to provide emission reduction credits for a demonstration of attainment or as part of a federally required maintenance plan. Therefore, the TNRCC has developed a modified enhanced program that will result in substantial additional emission reduction benefits and will provide additional flexibility for the area. If the nonattainment area is required to meet the full enhanced standard for any of the reasons above, the transition to a full enhanced program could be easily accomplished. The proposed program
establishes the necessary infrastructure with the inclusion of test-only stations and high-tech testing equipment. On a limited basis, vehicle emissions testing on fleets will begin July 1, 1994. Tests will be provided at a network of test-only facilities.

The Beaumont/Port Arthur area is a serious ozone nonattainment area, but is only required to implement a basic program because its 1980 population was less than 200,000. Serious, severe, or extreme ozone nonattainment areas which had urbanized areas populated by fewer than 200,000 in 1980 must implement the basic I/M program required in moderate areas. The Beaumont/Port Arthur I/M Program area includes Jefferson and Orange counties, with vehicle emissions testing performed biennially. On a limited basis, vehicle emissions testing on fleets will begin July 1, 1994. Tests will be provided at a network of test-only facilities.

Enhanced I/M programs are required in urbanized areas designated as serious, severe, or extreme ozone nonattainment, or in urbanized areas designated as moderate or serious CO nonattainment with a design value greater than 12.7 ppm, and having a 1980 census-defined urbanized area population of 200,000 or more. The Houston/Galveston and El Paso nonattainment areas fall into this category.
The Houston/Galveston nonattainment area and I/M program includes the following counties: Harris, Brazoria, Fort Bend, Waller, Liberty, Chambers, Galveston, and Montgomery. Biennial testing will begin on January 1, 1995, at a network of test-only facilities. Implementation will be delayed in Chambers, Liberty, and Waller Counties to provide for a progressive introduction of I/M into these rural areas. These counties will be included in 1997 to contribute toward region-wide reductions needed to satisfy FCAA mandates.

The EPA has recognized the unique air quality problems that are caused by emissions from Ciudad Juarez, Mexico in the El Paso area, and has adopted special provisions for the area to modify the requirements of the enhanced I/M performance standards. The El Paso nonattainment area consists of El Paso County. Chargeable testing in the test-only network will begin in January 1995, with a phase-in of the 1988 and newer model-year vehicles. All testing will be conducted in a test-only system beginning January 1, 1996.

The State of Texas commits to full implementation and enforcement of the I/M programs in these areas, as necessary to achieve attainment and maintenance of the NAAQS. The program may be discontinued only when a demonstration indicates that attainment can be maintained without the emission reduction benefits attributed to I/M.
There are no ozone transport regions or multi-state urbanized areas in Texas. EPA's Final I/M §51.350(b)(2) allows for the exclusion of some urbanized counties if an equal number of non-urban residents of the area are included to compensate for that area.

Section 382.037(c)(2) of the THSC allows attainment counties to voluntarily opt-in to an I/M program. A formal request, consisting of resolutions adopted by the county and the most populous municipality within the county, must be submitted to the TNRCC for approval.

b) Program Summary (No change.)

2)-5) (No change.)

6) Vehicle Coverage (Amendments)

a) Registered Vehicles

The I/M program includes coverage of all 1968 and newer model year gasoline powered light-duty vehicles and light-duty and heavy-duty trucks, registered or required to be registered by the Texas Department of Transportation (TxDOT) within a nonattainment area, and fleets primarily operated within an I/M program area. Heavy-duty trucks are defined as trucks having a gross vehicle weight of 10,001 pounds or more. Leased vehicles that are
primarily operated in or garaged in a nonattainment area are included in the program. Military tactical vehicles, motorcycles, and vehicles registered with TxDot as antique are excluded from the program. Diesel powered vehicles may be added to the vehicle testing program at a later date. Alternatively fueled or dual-fueled vehicles must be tested in the gasoline mode, if the vehicle can be operated on gasoline. Testing of tail pipe emissions, pressure and purge functions (if applicable) shall be conducted using the vehicle's gasoline fuel system. TABLE 2, representing an estimate of covered vehicles in the TxDOT registration data base, reflects the totals for affected counties in each nonattainment area as of August 31, 1992.

**TABLE 2**

**ESTIMATED VEHICLE POPULATION**

<table>
<thead>
<tr>
<th>Area</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOUSTON/GALVESTON</td>
<td>2,812,811*</td>
</tr>
<tr>
<td>BEAUMONT/PORT ARTHUR</td>
<td>245,590</td>
</tr>
<tr>
<td>DALLAS/FORT WORTH</td>
<td>2,830,830</td>
</tr>
<tr>
<td>EL PASO</td>
<td>363,842</td>
</tr>
</tbody>
</table>

(*includes Chambers, Liberty, and Waller Counties)

The TNRCC plans to identify covered vehicles through the current TxDOT vehicle registration data base. Prior to chargeable testing, the TxDOT will provide preregistration data of vehicles required to be tested from subject counties for each program area.
of each nonattainment area to the TNRCC. This initial data will include registration data for vehicles requiring registration within 90 days after the chargeable testing date. TxDOT will continue to provide data on a monthly basis to the TNRCC. The TxDOT will provide post-registration data on a monthly basis based on vehicle identification number (VIN) and/or license plate numbers to the TNRCC.

The TNRCC will compare the post-registration data with preregistration data to identify non-compliant vehicles. To further identify unregistered vehicles, the TNRCC will work with, and provide education to, law enforcement officials through local governments. Local law enforcement officials, county judges, and justices of the peace will be targeted. Since the local enforcement authority have an economic interest in the fines that they collect, there will be a greater incentive to identify the unregistered vehicles.

The TNRCC has the authority to establish classes of vehicles that are exempt from the I/M program, and may establish procedures to allow and review petitions for the exemption of individual vehicles, as provided in §382.037(k) of the THSC. Motorcycles and antique vehicles (as defined in Vernon's Civil Statutes, Article 6675a, Registration of antique passenger cars and trucks; license plates; renewal; penalty.) are excluded. It is estimated that there are about 500 antique vehicles in the nonattainment
areas that would meet requirements for this exclusion. Vehicles with Classic Vehicle plates are required to comply with the I/M program.

b) Compliance

Vehicles that are required to be registered must be tested in a test-only facility and receive a valid vehicle emission certificate (VEC) that is marked "Registration Status Authorized." In order to complete the registration requirements, a valid VEC must be submitted to the County Tax Assessor-Collector. The enforcement for registration is discussed further in this SIP in Section 11) "Motorist Compliance Enforcement."

(1) Compliance Rate

Previous studies on the compliance rate of the TxDOT registration requirement are inconclusive. Estimates of vehicles failing to meet registration requirements range from 2% to 20%. The TNRCC will work with councils of governments, major employers, and local enforcement officers in program areas to encourage compliance.

(2) Remote Compliance
The TNRCC may allow for two types of remote compliance and will provide administrative procedures and forms.

(i) Reciprocal agreements with other I/M programs may be allowed for college students and others whose vehicles are not required to be registered in Texas within 30 days of residency. Subject vehicles registered in the program area, but primarily operated in another I/M area, may be allowed to either be tested in the program area, or to furnish proof of passing a test of adequate performance standards by the program area in which the subject vehicle is primarily operated. For example, a student who attends school in El Paso County could register his vehicle by mail in Dallas County, if his vehicle is currently registered there. The student would be required to submit a VEC obtained in El Paso to the Managing Contractor in Dallas. The Managing Contractor would verify the adequacy of the test, and provide the student with a Dallas County VEC which could be returned with the registration form. This would also work for a student who is out-of-state, but is in another I/M program area. However, the reciprocal compliance would not be adequate for a student attending school in Orange County with a vehicle registered in Harris County. The Beaumont/Port Arthur area has a basic I/M program, which is less stringent than the enhanced program testing that is required in the Houston/Galveston area.
(ii) Alternative scheduling may be allowed when a vehicle is registered in an I/M program area but is operated entirely outside of the I/M program area. The registered owner would be required to furnish proof that it is infeasible to return to the I/M program area to submit the vehicle for testing prior to the expiration of registration. In such cases, the registered vehicle owner may apply for an alternative schedule for emissions testing, and would be allowed a VEC that was valid only until the alternative testing date. This would allow the out-of-area vehicle to be registered at the scheduled time. However, the vehicle owner would be obligated to submit the vehicle to an emissions test. A VEC marked "Pass or Waiver" by the alternative scheduled date is required for remote compliance rules established by TNRCC Rule §114.3.

(c) Federal Facilities

Section 118(c) of the FCAA Amendments of 1990 requires that all federal government agencies having jurisdiction over any property or facility within a nonattainment area require all employees operating motor vehicles on the property or facility to furnish proof of compliance with the vehicle I/M program. The TNRCC will use one of the following methods to establish proof of compliance:
(1) when the vehicle is operated but not registered in the program area, presentation by the vehicle owner of a valid VEC from the vehicle I/M program;

(2) when the vehicle is registered in the program area, presentation by the vehicle owner of proof of vehicle registration within the geographic area covered by the I/M program; or

(3) proof of reciprocal compliance.

As required by EPA guidance, 30 TAC §114.3 requires that vehicles which are operated on federal installations located within an I/M program area comply with the vehicle emissions inspections requirement, regardless of whether the vehicles are registered in the state or local I/M area. This regulation applies to all vehicles employee-owned or leased, and all vehicles owned by civilian and military personnel that are operated on federal installations, except military tactical vehicles. This requirement shall not apply to vehicles owned or operated by a visiting agency, employee, or military personnel, as long as such visits do not exceed 60 calendar days per year. The TNRCC will work with base commanders and facility directors/managers to assure that all subject vehicles operating on the facilities are in compliance with the emissions inspection requirements.
d) Fleets

Fleets are required to register with the TNRCC as established by 30 TAC §114.3. The TNRCC will work with Managing Contractors to develop a fleet testing schedule. The TNRCC will allow fleets the convenience of payment by voucher, and is considering other methods of prepayment.

(1) Privately Owned Fleets

Privately owned fleets that are registered and operated in an I/M program area will comply with vehicle emissions testing and registration requirements in the I/M program area.

(2) Federally Owned Fleets

Federal government vehicles operated in the I/M program area are required by Section 118(c) of the FCAA Amendments of 1990 to comply with all provisions of the I/M program. This regulation applies to all agency-owned or operated vehicles, except tactical military vehicles. EPA has accepted the definition of a military tactical vehicle as defined in a memorandum dated March 2, 1993, from the Department of the Navy as follows:

"A motor vehicle designed to military specifications or a commercially designed motor vehicle which is needed to meet
direct transportation support of combat, combat support, combat service support, tactical, or relief operations, or training of personnel for such operations. Commercial designed motor vehicles described above will be subjected to state inspection and maintenance programs regardless of tactical status."

The number of federal facilities and vehicles operating in the Texas I/M Program areas has not been fully identified. The TACB staff participated in a workshop for federal facilities sponsored by EPA, Region 6 staff, on May 11-12, 1993, and will continue working with these agencies to determine the number of federally owned vehicles that are required to be tested. Federal fleets will be identified with the assistance of the federal fleet management office of the regional General Services Administration (GSA) in Fort Worth, the federal facilities coordinator of EPA, Region 6, and United States military bases in the nonattainment areas. The TNRCC has received addresses of federal facilities located in Texas from the Federal Information Center, which is operated by GSA.

The TNRCC will develop procedures to ensure the compliance of federal agencies with the vehicle emissions inspection requirements pursuant to 30 TAC §114.3. The TNRCC will work with fleet managers of federal facilities to identify covered vehicles owned by the federal government.
(3) Texas Exempt-Titled Fleets

No special classes of vehicles are exempt from vehicle emissions testing. However, Texas does have specially designated license plates for vehicles that are exempt from registration fees. Vehicles receiving these license plates are referred to as exempt-titled. 30 TAC §114.3 requires that fleet vehicles exempt from registration fees comply with vehicle emissions testing if they are to be operated in a county included in an I/M program. The TxDOT will provide exempt-title motor vehicle registration data. State, county, municipalities, public school districts, and other subdivisions of the state owning vehicles exempt from registration fees shall be notified by the TNRCC/TxDOT of the vehicle emissions testing requirement.

(4) Private Fleets Primarily Operated in I/M Program Areas

30 TAC §114.3, requires compliance with emissions testing for fleet vehicles that are primarily operated in an I/M program area (even though the vehicle is not registered and not required to be registered in the nonattainment area). This rule allows the TNRCC to require fleet owners of unregistered vehicles to report vehicles owned. To locate these vehicles, the TNRCC will explore such strategies as searching state agencies directories and data bases. To identify fleets that may be operating in the area, but
not registered in the nonattainment area, the TNRCC will use local directories to seek out the fleet owners or leasing agencies. Once identified, they will be notified of the requirement to comply with the I/M program. Additionally, in cooperation with Metropolitan Planning Organizations, the TNRCC will identify major employers that serve as attractions for vehicles registered outside the nonattainment area.

(5) Fleet Testing

The TNRCC is currently developing a plan to identify vehicles that only initially register with the TxDOT, private fleets primarily operating in a nonattainment area, and federal fleets. This plan includes the development of a fleet data base that will track all subject fleet vehicles. 30 TAC §114 requires these subject fleets to register with the TNRCC by March 1, 1994. A testing cycle for unregistered fleets is being developed with the input of the Managing Contractor to ensure compliance with the I/M requirements.

Public, private, and federal fleets will be tested at Contractor operated, test-only facilities. Self-testing of fleets is not acceptable. The THSC §382.038(g) requires the TNRCC to establish procedures by which the Managing Contractor may agree to test at a fleet facility or dealership. Special testing as provided by THSC §382.038 would be performed by the Managing Contractor. The
following options are available to the Managing Contractor in negotiations with fleet operators:

(i) testing at a fleet facility or dealership using mobile test equipment;

(ii) testing at a fleet facility or dealership using test equipment owned by the fleet or dealership, but calibrated and operated by the Managing Contractor's personnel; or

(iii) testing at a fleet facility or dealership using test equipment calibrated, owned and operated by the Managing Contractor and installed at the fleet or dealership facility.

(6) Compliance for Fleets (New)

All fleets scheduled by the TNRCC to be tested (including exempt-title fleets, federal fleets and fleets not registered but primarily operating in a nonattainment area) must be in compliance by December 31 of that year. 30 TAC §114.3 establishes that a scheduled vehicle must be tested and receive a VEC that indicates, "Registration Status Authorized" according to the following schedule:
(i) Fleet vehicles scheduled for testing July 1, 1994 - December 31, 1994 must be in compliance by December 31, 1994;

(ii) By December 31, 1995 (and every odd year thereafter), all odd model year vehicles are required to be in compliance; and

(iii) All even model year fleet vehicles must be in compliance by December 31, 1996 and every even year thereafter.

The 30 TAC §114.3 also requires that fleet owners provide an annual update to the fleet data base which is due December 31 of each year. Compliance would be verified by random audits, using on-site surveys or automated data collection.

7) Test Procedures and Standards and Test Equipment (Amendment)

All 1968 and newer gasoline powered vehicles, with the exception of motorcycles, military tactical vehicles, and vehicles with antique license plates, shall be subject to the vehicle emissions inspection program in Texas nonattainment areas. Light-duty vehicles and light-duty trucks shall be subject to a loaded vehicle emissions inspection (loaded/idle or IM240) and an
evaporative system integrity test or a pressure test for 1971 and newer model year vehicles. All light-duty vehicles and light-duty trucks subject to an IM240 emissions inspection shall also receive an evaporative system transient purge test. Heavy-duty trucks and full-time four wheel drive vehicles shall be subject to a preconditioned two-speed idle emissions inspection and an evaporative system integrity test or a pressure test for 1971 and newer model year vehicles. All subject vehicles shall receive a visual inspection of the fuel inlet restrictor and catalyst.

Light-duty vehicles and light-duty trucks subject to IM240 testing shall be tested in accordance with EPA's "High-Tech I/M Test Procedures, Emission Standards, Quality Control Requirements, an Equipment Specification, Technical Guidance," (EPA's Policy) dated February, 1994, and subsequent documents (Appendix G) for equipment and procedures. Light-duty vehicles and light-duty trucks not subject to IM240 testing shall receive a loaded/idle vehicle emissions inspection test in accordance with EPA's Final I/M §51.357 and Subpart S, Appendices A-E (Steady State and Transient Testing Requirements) (Appendix A). Heavy-duty trucks shall receive a preconditioned two-speed idle test in accordance with the Steady State and Transient Testing Requirements.

All vehicle emissions inspection test systems shall be computerized and contain lock-out provisions to prevent unauthorized
access. A vehicle emissions inspection shall not begin until the subject vehicle has passed a pre-test safety check by the inspector. The vehicle emissions inspection shall commence when the license plate number or some portion of the VIN has been entered into the system. Pre-existing data, based on the registration data base, and the prior vehicle emissions inspection history of the subject vehicle will be retrieved. The inspector shall confirm the registration data with the subject vehicle presented for emissions inspection. The computerized emissions inspection test system shall automatically select the proper dynamometer, if applicable, and emission analyzer settings. All emissions inspection test results shall be electronically stored on the Managing Contractor's host computer and will be accessible to the TNRCC.

8)-9) (No change.)

10) Waivers and Compliance Via Diagnostic Inspection (Amendment)

a) Waiver Rate

The TNRCC will utilize four (4) types of waivers. The minimum expenditure and time extension waivers are temporary exemptions from emissions testing requirements; motorists and vehicles must meet specific requirements; and these waivers may be issued for
successive testing cycles. The one-time hardship extension waiver is allowed for only one I/M emissions inspection cycle in the lifetime of the vehicle. The Executive Director waiver will be valid for only one inspection cycle, and may be issued after review of a submitted application.

The TACB has identified a waiver rate for each nonattainment area that is assumed in the demonstration that the I/M program meets the applicable performance standard. The TNRCC commits to a waiver rate in practice that is equal to or lower than the percentages of initially failed vehicles listed below:

(1) 3% for the Houston/Galveston area;

(2) 3% for the El Paso area;

(3) 1% for the Beaumont/Port Arthur area;

and

(4) 3% for the Dallas/Fort Worth area.

b) Corrective Action

If the waiver rates stated in the annual report to EPA are higher, the TNRCC will take corrective action to lower the waiver rate. Corrective strategies may include:
(1) requiring motorists applying for a waiver to reduce initial vehicle emissions test output levels by a specified amount;

(2) limiting the model years that are eligible for a waiver;

(3) raising minimum expenditure limits; and/or

(4) other measures determined by the TNRCC.

If the waiver rate cannot be lowered to levels committed to in the SIP, or if the TNRCC chooses not to implement measures to do so, then the TNRCC will revise the I/M emission reduction projections in the SIP and will implement other program changes, if needed, to ensure the performance standard is met.

The TNRCC shall monitor emissions inspection data for patterns of vehicle failures and performance and shall forward this information to EPA for action. In the event that EPA fails to administer strategies to sufficiently guard against or to correct the cause of pattern failures, the TNRCC may develop and place into action a State plan utilizing compliance via diagnostic inspection. The TNRCC will seek EPA approval of any compliance diagnostic exemption policy and procedure prior to implementation of
any diagnostic exemption. The TNRCC is concerned that EPA will fail to set forth guidelines or rules in a timely manner. In such instances, the TNRCC does not believe that owners of vehicles with well recognized and documented pattern failures should be penalized.

c) Referee Facilities

The Managing Contractors will be responsible for the issuance of all waivers at referee inspection facilities. These facilities will be staffed by technicians who are certified, at a minimum, in the following Automotive Service Excellence (ASE) certification areas: engine repair, engine performance, and electrical systems. The technician will also be required to pass, when available, the Advanced Engine Performance Specialist (L1) test, formerly known as the Electronics Emission Diagnostics Technician (EEDT) certification. An ASE Master Certified Technician will supervise and direct all certified technicians conducting disputed emissions testing and waiver issuance for all referee facilities within a program area.

d) Criteria For Receiving A Waiver

Upon failure of the initial emissions inspection, Operating Contractors will be required to provide vehicle owners with a failed VEC, warranty coverage information, a list of the TNRCC CERPTs, and additional repair information.
After receiving repair facility and warranty information, the following criteria must be satisfied before a waiver may be issued:

(1) For minimum expenditure waivers, vehicles must fail a retest after all qualifying repairs have been completed.

(2) Beginning January 1, 1995, only those emissions related repairs performed by a TNRCC voluntarily CERTT, and directly applicable to the cause for the test failure, shall apply toward waiver issuance. Personnel at referee stations shall be trained to identify those repairs and replacement parts associated with HC, CO, NOx, or purge, pressure, and tampering failures.;

(3) Any available warranty coverage shall be used to obtain needed repairs before expenditures can be counted towards the cost limits, unless the warranty remedy has been denied in writing from the manufacturer or authorized dealer;

(4) To receive minimum expenditure and time extension waivers, motorists must provide to the referee facility a retest VEC, a vehicle emissions repair report (VERR) and an
itemized, original repair receipt. The repair receipt shall indicate, at a minimum:

(a) a detailed list of repairs completed;

(b) as of January 1, 1995, the certification number of the CERFT in which the repairs are performed;

(c) the location of the repair facility;

(d) the telephone number of the repair facility;

(e) as of January 1, 1995, the certification number and signature of the CERTT performing the repairs;

(f) the costs of parts and labor; and

(g) the repair date.

(5) To authenticate repairs, the referee facility technician shall indicate on the receipt that it was submitted for waiver purposes, retain and file a copy, and return the receipt to the motorist. The referee facility technician shall log the following additional information:
(a) the date and time of repair receipt submission;

(b) the identification of the referee facility including the physical address and telephone number; and

(c) the identification of the individual validating the repair receipt or any other information as determined by the TNRCC.

(6) Technicians will visually verify, to the extent practicable, that repairs indicated were actually made. Technicians will review the itemized, original receipt to further verify that minimum cost expenditures and qualifying repairs were performed. Following a review of the repair receipt, the vehicle will be retested with the applicable emissions inspection test to assess the impact of the repair work performed.

(7) All waivers will expire after one test cycle. These limitations will be enforced through the process of registration denial. For each testing cycle, motorists must surrender a detachable portion of the VEC, indicating that vehicle test status is "Registration Authorized" before the registration process will be complete. Tax Assessor-Collectors and their deputies will be required to forward the VEC to the
TNRCC for tracking purposes. Minimum expenditure, time extension, and Executive Director waivers can be repeated each test cycle, if the vehicle/owner meets all criteria during the current test cycle. The hardship waiver is allowed only once in the life of the vehicle and will also expire after one test cycle. Once the hardship waiver is issued, that vehicle cannot receive another hardship waiver even if ownership changes. The retainable portion of the VEC will be marked with the type of waiver allowed.

(8) Waivers will not be issued unless the referee facility receives a test fee for the waiver eligible vehicle. Every test fee will be equivalent to the amount of the inspection fee for the area in which the waiver is issued.

e) Minimum Expenditure Waivers

After a vehicle fails an emissions inspection, the owner shall not be required to spend more than a minimum expenditure, set by the TNRCC, for emissions related repairs. The minimum expenditure in enhanced program areas, Houston/Galveston and El Paso, shall be adjusted in January of each year by the percentage, if any, by which the Consumer Price Index for the preceding calendar year differs from the Consumer Price Index for 1989. For enhanced areas, as required in the FCAA Amendments, the minimum expenditure for emissions related repairs shall be $450 (as
adjusted). In basic areas, EPA's Final I/M Rule requires the minimum expenditure to be $200 for 1981 and later model vehicles and $75 for pre-1981 model year vehicles. EPA's Final I/M Rule further states that credit toward any minimum expenditure waiver shall not include expenses accrued due to tampering-related repairs or replacement parts.

The minimum expenditure waiver can only be issued by a referee facility after the vehicle has failed its emissions retest. Any motorist's vehicle which meets the criteria for this waiver may receive a VEC that clearly indicates the test status as "Registration Authorized."

Minimum expenditure waivers do not apply to vehicles with engine modifications, emission system modifications, or fuel type modifications not approved by EPA or the TNRCC. If a vehicle with an exchanged engine is presented for a waiver, the vehicle must meet the waiver criteria plus 30 TAC §114.3, and any additional requirements mandated by EPA before a waiver will be issued.

f) Hardship Waivers

A motorist whose vehicle fails an emissions inspection and who is not financially able to afford adequate repairs to meet the minimum waiver amount (in basic or enhanced program areas) may
apply for a one-time hardship extension waiver. A one-time hardship extension waiver is available only once in the life of the vehicle. The hardship waiver is allowed for only one test cycle. It is not renewable. The hardship waiver is intended to allow the extra time of one test cycle for an owner with a financial hardship to repair the vehicle or meet the minimum expenditure waiver criteria. For any subsequent test cycle following a hardship waiver, the vehicles must pass the emissions test or qualify for a minimum expenditure waiver in order to register the vehicle in a nonattainment area. Financial hardship may be defined as an inability to afford either the minimum expenditure for that program area, or the estimated cost of necessary emissions related repairs. Hardship waiver eligibility criteria are proposed in 30 TAC §114.6. The TNRCC is working to identify additional hardship waiver eligibility criteria and may add these criteria at a later date. The one-time hardship extension waiver is available to motorists:

(1) whose vehicle fails an emissions inspection;

(2) who have proof of meeting hardship eligibility criteria established in 30 TAC §114.6;

(3) whose vehicle has not been granted a previous hardship waiver;
(4) whose vehicle is identified by appropriate title information; and

(5) who have paid all applicable test fees.

To receive a one-time hardship extension waiver, the motorist shall make an application and present necessary information to the referee facility. Referee facility personnel are required to record all one-time hardship extension waivers in a designated database so that this information will be available to potential purchasers of the vehicle. Each one-time hardship extension waiver application will be checked for any preexisting waivers. If the motorist fulfills the appropriate criteria, a one-time hardship extension waiver will be issued for the vehicle. Once a one-time hardship extension waiver has been issued for a specific vehicle, another waiver of this type may never be issued for that vehicle in any Texas I/M program area.

g) Time Extension Waivers for Repairs

If a motorist's vehicle fails an initial emissions inspection test and the repairs necessary for a reduction in emissions require a rare, vintage, or difficult to order part (one that takes more than 30 days for expected delivery), the vehicle may qualify for a time extension waiver. This type of waiver is granted by referee facilities on a case-by-case basis and is
valid for one to three months. An automotive emission-related part is considered uncommon if a motorist can prove that a reasonable attempt was made to locate necessary emission control parts by retail or wholesale parts suppliers and the time required will exceed the remaining time prior to expiration of the vehicle's registration.

Emissions inspection personnel will present a blank Time Extension application to motorists whose vehicle failed the emissions inspection test. To apply for a time extension waiver, the motorist must obtain a written estimate from a CERTT verifying that the vehicle's successful repair is contingent on a time-consuming or difficult to locate part order and installation. The motorist must submit a completed Time Extension application which clearly identifies the CERFT (name, address, and phone number) from which the part was ordered. Before issuing a time extension waiver, the referee technician may contact the named CERFT to verify the order and the required time period necessary for the motorist to receive the ordered item.

The Managing Contractor at a Referee Facility will determine the length of time assigned to a time extension waiver based upon verification of the availability, shipping time, and installation time that is indicated on the time extension waiver application by the CERTT at a CERFT. Prior to the issuance of any waiver or retest, the emission test or referee facility shall automatically
check for any pre-existing or current waivers on the vehicle. Technicians at the referee facility shall verify the emissions test status of every vehicle waiver application. The Managing Contractor shall not issue a time extension waiver to a vehicle more than once per test cycle or if the vehicle has an outstanding time extension waiver from a previous test cycle. Over time, the time extension waiver data base will serve as a reliable means of monitoring the maximum number of, and length of service for, difficult to repair vehicles.

After a vehicle is accepted through the waiver data base check, the referee facility may issue a time extension waiver inclusive of the estimated time that it takes the supplier to ship the part and the repair technician to install it. However, the total time of the waiver shall not exceed three months. After a vehicle is issued a time extension waiver, the motorist will receive a VEC marked "Registration Authorized" and will be able to complete registration.

Upon completion of repairs, the motorist must return to the referee facility for an emissions retest and a verification of the repairs. If the vehicle passes its retest, the motorist will be presented a VEC which proves that the vehicle passed an emissions retest. When a vehicle successfully completes a vehicle emissions retest, the time extension waiver will be discontinued. A discontinued waiver, marked as "void" on the
host computer, will remain on the host computer data base for two years. The TNRCC shall audit the waiver data base every month to ensure that vehicles with time extension waivers are being repaired. Approximately two weeks prior to the set time limit, a warning notice will be sent to any motorist owning a vehicle with a time extension waiver. If, after the set time limit, the motorist has not provided evidence to the TNRCC that the vehicle has passed the emissions retest, has had its registration reclassified, or its use discontinued, the owner may be issued a Notice of Violation (NOV) of their waiver and may be subject to penalties up to $10,000 per day per violation under the Texas Clean Air Act.

h) The TNRCC will provide limited opportunities for motorists that have taken reasonable measures to comply with the requirements of the I/M program and whose vehicle will have a minimal effect on air quality. The TNRCC has the authority, through THSC §382.037 (k), to establish classes of vehicles that are exempt from vehicle emissions inspections. The TNRCC, by §114.3, has established procedures and criteria to allow the review of petitions for the exemption of individual vehicles. The exemption will be valid for only one inspection cycle. It is anticipated that less than 500 vehicles, which is a statistically insignificant number, will be exempted from the program. The Executive Director of the TNRCC shall review each individual application on its merit. The intention of this
exemption clause is to provide a way for the state to exempt vehicles from complying with all the I/M program requirements in very limited cases, as in the case of the unavailability of parts and compliance via diagnostic inspection. Vehicles such as those with unavailable emission related parts needed for repair or "grey market" vehicles which were not built to meet U.S. emission requirements and have a letter of exemption from EPA, would be eligible for exemption. This mechanism is necessary to allow these vehicles a means of completing the registration process when the vehicle could not be expected to meet emission testing standards even if the minimum expenditure was met.

During the review of the previously submitted SIP, the U.S. EPA expressed concern about motorists who feel that they have taken reasonable measures to comply (i.e., failure of one test and a tune-up which falls short of the minimum expenditure requirement of the waivers), and who feel their one car is not having a significant impact on air quality. The TNRCC commits to implementing the exemption provision consistent with this interpretation, limiting its use to the types of vehicles described. In addition, if the number of exemptions given under this clause exceeds our estimated amount of 500 vehicles, and is affecting the state's ability to meet the performance standard requirement, the TNRCC will make adjustments to the program to ensure that the performance standard is met.
1) If a motorist leases or offers to lease, sells or offers for sale, trades or offers to trade, or otherwise transfers the title of a motor vehicle during the period any waiver is in effect, the motorist shall notify the prospective owner or operator in writing of the waiver.

11) Motorist Compliance Enforcement (Revision)

Compliance shall be ensured through the denial of motor vehicle registration in basic and enhanced program areas. Texas will use a biennial schedule of testing in all four nonattainment areas. In an even-numbered year, the vehicles of an even-numbered model year, and in an odd-numbered year, the vehicles of an odd-numbered model year, shall be required to have an applicable emissions test performed. The motorist compliance enforcement program shall be implemented by the TxDOT and the TNRCC.

Motorists will be denied vehicle registration unless the vehicle has complied with the I/M program requirements. Owners of all 1968 and later gasoline powered vehicles that are annually registered with the TxDOT will receive a vehicle registration renewal form that indicates whether or not a vehicle emissions test is required. The TNRCC will not require newly manufactured vehicles to have an emissions inspection test prior to initial registration. When a vehicle is required to participate in the I/M program, the owner of the vehicle shall submit to the County Tax
Assessor-Collector, or their deputies, an original VEC issued for that vehicle within 90 days preceding the date on which the person applies for the registration of that vehicle. A valid original VEC which is marked as "Registration Authorized" must be submitted for compliance with the I/M program requirements and shall include at a minimum:

a) an expiration date of the certification;

b) the license plate number;

c) the VIN;

d) the year, make, and model of the vehicle;

and

e) whether the vehicle passed or received a waiver and "registration authorized."

Tax Assessor-Collectors shall check the authenticity of the certificate and validate it, through inspection for security markings, prior to registering the subject vehicle. Motorists who do not comply with the I/M requirements will not receive a current vehicle registration validation sticker. To comply with inspection requirements, motorists must obtain a VEC through
either passing the vehicle emissions inspection test or receiving a waiver, on or before the valid registration period expires.

The TNRCC may take further action by mailing notices to motorists with vehicles out of compliance. The TNRCC can invoke severe penalties if it is determined that some form of counterfeiting of the emissions inspection certificate or any other registration document was used to fraudulently obtain a vehicle registration sticker. Penalties for such infraction of the rule carries administrative penalties up to $10,000 per day per violation or judicial penalties up to $25,000 per day per violation, as well as possible criminal sanctions.

The vehicle registration validation sticker, received upon completion of registration, will be used as an external, readily visible means of determining a vehicle's compliance with the registration requirement. Each sticker has a unique identification number allowing verification that the sticker and the vehicle license plate match. Stickers issued in nonattainment counties will have a bar across the face of the sticker, indicating that it was issued in a nonattainment area, in addition to the year of registration expiration. Registration stickers issued prior to 1994 are located on the rear license plate of the vehicle. Beginning in 1994, they will be located on the inside of the windshield. For theft to occur, the vehicle must be broken into. This would result in a felony charge.
While TxDot does not currently have the statutory authority to revoke motor vehicle registration, TNRCC could request that TxDOT seek the authority from the Legislature in the future.

According to "Research Report 1202-1F", a study for TxDOT conducted by the Texas Transportation Institute (TTI) titled "Analysis of Violations of the Texas Motor Vehicle Registration Laws and Revenue Losses," the current registration compliance rate is between 80-98%. The TTI study contained a detailed analysis of the rate and made suggestions to improve registration compliance. In addition, the TNRCC is making changes that will encourage compliance, increase the effectiveness of registration enforcement, and will meet the compliance rate assumed in modeling (96%) or offset the deficiencies. The TNRCC has increased the penalties for noncompliance and increased the incentives for local law enforcement. These changes, meant to close the loopholes on noncompliance and raise compliance levels, are described in the following paragraphs. If the TNRCC fails to meet the 96% compliance rate, the I/M SIP will be revised to offset the deficiencies.

The Texas Civil Statutes Article 6675a-1, et seq. and the THSC required the TxDOT to promulgate rules and regulations relative to the department's issuance of vehicle registration and required the department, by rule, to require the owner of the vehicle to be registered in a county covered by an emissions inspection/
maintenance program to submit a vehicle emissions inspection certificate for that vehicle. This rule, "Texas Department of Transportation, Chapter 17, Division of Motor Emission Verification System (43 TAC §17.80) adopted by the Transportation Commission on October 28, 1993," is included in the I/M SIP as Appendix H.

To prevent circumvention of the program by motorists registering in attainment counties to avoid the I/M requirements, tax assessor-collectors in all attainment counties shall require an applicant for registration of a vehicle to provide evidence that the applicant is a resident of that county. Article 6675a-2(a), Vernon's Texas Civil Statutes, states that the TxDOT, by rule, shall prescribe acceptable forms and types of evidence. In addition to the registration denial, state, county and local law enforcement agencies have the authority under Article 6675b-4(a)(b), Article 6675b-4A(b)(d), Article 6675b-4B(c)(e), and Article 6701d(5)(B)(D), of Vernon's Texas Civil Statutes, to ticket and impound vehicles that are operated or parked on public roadways in nonattainment areas and that are not in compliance with the I/M program requirements. Fines for these violations, established in the aforementioned Articles, are not less than $100 or more than $200. Impoundment of a vehicle causes considerable inconvenience and could cost more than minimum waiver expenditures. Vehicles which avoid the I/M program requirements by not registering their vehicles may be subject to multiple
penalties by law enforcement officials until the registration requirements are met. Under articles 6675b-4(a)(b), 6675b-4A(b)(d), 6675b-4B(c)(e), and 6701d(5)(B)(D) law enforcement officials have the authority to impound vehicles which have received a fine, but have still not complied with the emissions inspection requirements.

Motorists will be issued routine citations by law enforcement personnel when it is determined that their vehicle registration sticker is out-of-date. These noncompliant cases will not be closed until the registration is completed or other compliance is demonstrated. Until compliance is demonstrated, a vehicle found in violation of 30 TAC §114.3(o) continues to be in violation of the rule, even if a fine has been paid.

The TNRCC is developing a plan to educate local law enforcement officials on the I/M program requirements and on the types of enforcement opportunities available to them. The local law enforcement agencies will be allowed to retain the fines that they collect. The TNRCC will promote the enforcement requirements necessary for the program's effectiveness.

To prevent fraudulent initial classification or reclassification of a vehicle, the TNRCC will periodically run VIN decoding procedures to determine if vehicles have been classified or reclassifi-
fied incorrectly. In addition, the operators of diesel vehicles are required to obtain a diesel permit from TxDOT.

The TNRCC may also conduct routine road-side and parking lot surveys of area employers to ensure that vehicles primarily operated in the program area (but registered outside the program area) are in compliance with the I/M program. Vehicle owners who establish residency in an I/M program area shall be required to successfully complete an emissions test, or otherwise comply with I/M program requirements, before registering their vehicle.

Fleet vehicles, federally owned vehicles, and leased vehicles that do not receive an annual registration renewal form from the TxDOT will be required to meet the same program requirements as all other vehicles that receive an annual registration.

The TNRCC is currently in the process of establishing procedures for testing federal vehicles and all other subject vehicles, such as fleets with exempt-title plates, that do not receive an annual registration renewal from the TxDOT. In order to accommodate these vehicles, the TNRCC may establish provisions for off-hours testing at the inspection facilities and on-site testing of fleet vehicles via mobile testing equipment.

Legal authority to establish an enforcement program which will meet EPA's motorist compliance enforcement requirements is given
through THSC §§382.037, 382.038, and 382.039, and THSC §§382.081 through 382.096, Article's 6675, 6701, and 6702 of Vernon's Texas Civil Statutes; and 30 TAC §114.3.

12-17) (No change.)

18) Public Information (Amendment)

a)-e) (No change.)

f) Vehicle Emission Certificate (Amendment)

Each motorist shall receive a VEC at the completion of each emissions inspection. The report shall present test result readings for HC, CO, carbon dioxide, NO\textsubscript{x}, a Pass/Fail status of each pollutant tested, the inspector's identification number, whether it was an initial test or a retest, and information on applicable warranty coverage. Test results are available as described in Section 20) Repair Effectiveness b) Technical Assistance Plan.

g) Vehicle Emissions Repair Report (VERR) (new)

The VERR is located on the back of the VEC form and must be completed by the repair technician before the vehicle is eligible
for a free retest. The VERR must be completed by a CERTT for the vehicle to qualify for a minimum expenditure waiver. The VERR will contain at least the following information:

1) Information identifying the CERTT and the CERFT:

2) Summary information corresponding to the emissions components serviced;

3) Cost of Parts and Labor; and

4) Repair technician recommended repairs that were not performed.

h) Repair Facility Information for Test Failure (Amendment)

(1) Information Provided

Motorists with vehicles failing an emissions inspection shall be offered information by the inspector on the following topics:

(a) waivers;

(b) general consumer assistance;
(c) descriptions of the possible causes for each part of the test failed;

(d) lists of certified repair facilities;

(e) certified technician/facility performance monitoring statistics; and

(f) a notice that performance statistics of uncertified technicians are available upon request.

(2) Repair Industry Performance Statistics

Performance monitoring statistics will be provided to motorists whose vehicles fail the I/M emissions test in I/M program areas.

   i) Motorist Assistance (Revision)

Any motorist whose vehicle fails its emissions inspection test will have access to the same information and assistance available to repair technicians as is described in Section 20) b).
19) Consumer Protection Provisions (Amendment)

The TNRCC shall institute procedures and mechanisms to protect the public from fraud and abuse by vehicle emissions inspectors, automotive repair technicians, mechanics, and others involved in the I/M program.

a) Referee Facilities

Each Managing Contractor will provide challenge/referee facilities. Motorists whose vehicle fails a test at an emissions inspection facility may challenge the findings at the Managing Contractors referee facility. If the vehicle fails the second test, the motorist will pay for the test. However, if the vehicle passes the test, the test is performed at no charge. The Managing Contractor must track the number and results of all challenge tests conducted initially by Operating Contractors.

The Managing Contractor shall design, build, staff, and operate referee facilities with a minimum of two lanes per facility. Referee facilities shall be used for the issuance of waivers, and the performance of challenge retests, and shall include research/outreach lanes in the Dallas and Houston areas. Referee facilities shall be easily accessible to the motorist, with convenient hours and days of operation. Each facility shall be open a minimum of 48 hours per week. The number and capacity of
referee facilities is fixed at a minimum service level for the I/M program in each nonattainment area. The staff employed at referee facilities shall meet the requirements established in Subsection 4.3.11.1 of the Request For Proposal.

If the vehicle passes its challenge retest, the motorist will be issued a VEC indicating the passing status of the vehicle without incurring a second emissions inspection fee. An emissions testing facility that produces excessive challenge retests may be subjected to more frequent auditing.

b)-k) (No change.)

20) Improving Repair Effectiveness (Amendment)

a) Background

Repair effectiveness is defined as the ability to detect, analyze, and adequately repair an emissions-related problem, following the failure of a motor vehicle emissions inspection. EPA specifically states that an acceptable repair effectiveness program must include technical assistance, performance monitoring, and repair technician training. In addition to EPA's criteria for an acceptable repair effectiveness program, the TNRCC has met with, and received comments from, the automotive repair industry requesting the design and implementation of a
voluntary certification program for automotive repair technicians and emission repair facilities. The TNRCC will offer a voluntary program in which qualified facilities and technicians may receive the TNRCC certification. These facilities and technicians are referred to as CERFTs and CERTTs, respectively.

Technical assistance involves closely communicating with the repair industry and providing access to an approved technical assistance hot line service for CERTTs. Performance monitoring utilizes statistics to track conforming and nonconforming repairs, repair methods, and repair technicians. Voluntary emissions repair technicians training and certification will prepare CERTTs for the complex problems and changes associated with modern emissions control repairs. Finally, voluntary emissions repair facility certification will establish minimum staffing, equipment, and facility requirements.

A vehicle emissions I/M program will only be as effective as the "M" in I/M. Only an effective maintenance program can adequately reduce the in-use emissions from motor vehicles. EPA estimates that in a mature I/M program, 9.0% of all tested vehicles will fail emissions inspections in test-only programs. The state must ensure that there are an adequate number of repair technicians available. A shortage of emissions repair technicians will adversely impact the motorist. The THSC §382.037(j) provides the legislative authority for the TNRCC to implement a repair effec-
tiveness program and authorizes the TNRCC to develop a voluntary certified emissions repair technician training program.

b) Technical Assistance Plan

The IM240 test results for failed vehicles will be stored on the Managing Contractor's host computer and be readily accessible for at least one test cycle. Until a failed vehicle passes an emissions retest, repair technicians and motorists will be able to electronically obtain the test results for that vehicle. By calling a local phone number and providing the appropriate VEC number, repair technicians and motorists will be able to have graphical IM240 test results faxed to them. Repair technicians and motorists without access to fax machines will be able to receive the graphical IM240 test results from the Managing Contractor's main office upon request.

The Managing Contractor shall maintain an historical record of the types of emissions repairs performed by CERFTs which have resulted in successful retests for failed vehicles. Through the same mechanisms described above for obtaining IM240 test results, repair technicians and motorists will be able to obtain a list of the most common emissions repairs which have resulted in successful retests for particular vehicles.
Timely emissions inspection program information shall be distributed through a newsletter to CERFTs and CERTTs. Program information will inform repair facilities of changes to the inspection program, training course schedules, common problems and potential solutions for particular engine families, diagnostic tips, repairs, and other technical assistance issues. As time and resources permit, this information will be made available via electronic means to both repair technicians and motorists.

As described in Section 18) e), one of the functions of the hot line shall be the provision of technical assistance to both repair technicians and motorists. Common questions regarding the legal requirements of state and federal law will be handled directly by the hot line. Callers with detailed or complex questions about issues such as emission control device tampering or engine switching will be referred directly to the TNRCC. Upon request, the hot line will provide basic information which could be used by the caller in the emissions repair process. The hot line will not provide specific repair advice which could be interpreted by the caller as a recommendation which should result in a successful emissions retest. The TNRCC and the Managing Contractor will continually monitor the types of requests for repair advice that are received as a means of developing responses to common basic questions.
Repair technicians and motorists seeking specific repair advice will be provided with contact information for commercial technical assistance hot line services which they can utilize at their own expense. In order to be included on this list of commercial technical assistance hot line services, the service must: be available via a toll-free number during normal business hours; be able to provide emissions repair information for a large cross-section of gasoline-powered motor vehicles dating from the present back to model year 1968; and be able to provide emissions repair advice which could be used by a technician in the repair of a vehicle that has failed a transient emissions test such as the IM240. The TNRCC reserves the right to exclude from this list any commercial hot line service for which any negative feedback is received from representatives of the Texas repair community.

c) Performance Monitoring

(1) Statistical Tracking

Emissions inspection and emissions repair statistics for all non-attainment areas shall be recorded and maintained by the Managing Contractor. The Managing Contractor shall collect and record repair data provided by individual motor vehicle repair facilities at the time a vehicle is presented for its emissions inspection retest. A summary report, compiled by the Managing
Contractor with the approval of the TNRCC, shall indicate the performance of CERFTs and CERTTs. Performance monitoring shall include, at a minimum, the following criteria:

(a) the number of vehicles submitted for a retest after repair;

(b) the percentage of vehicles passing the first retest;

(c) the percentage of vehicles requiring more than one trip before passing;

(d) the percentage of vehicles receiving a waiver; and

(e) the percentage of vehicles which failed the retest after the motorist refused recommended repairs.

(2) Additional Statistical Tracking Criteria

The TNRCC will consider other criteria such as the proximity of the emissions output from repaired vehicles compared with the Federal Test Procedure (FTP) Specifications. Additional considerations may include the ability of repair facilities to provide
effective and convenient repair regardless of the age, condition, or other situations under which vehicles are presented for emissions repair at each CERFT.

(3) Certified Emissions Repair Technician Tracking

Once a vehicle fails its initial emissions inspection, emissions-related repairs must be conducted prior to obtaining an emissions inspection retest. Before engaging in emissions-related repairs, all emissions repair technicians (not just certified) should provide an emissions repair vehicle diagnosis to the motorist. An emissions repair diagnosis is a list of recommended repairs and estimated cost breakdown to correct vehicle emissions failures. At the motorist's discretion, any repairs they believe to be unnecessary may be excluded. However, the motorist is ultimately responsible for additional emissions-related repair expenses if the vehicle fails its emissions inspection retest.

The TNRCC will monitor the performance of all CERTTs. The TNRCC performance analysis may also include summaries that detail the relationship between recommended and completed emissions repairs and emissions inspection retest results, maintained by the Managing Contractor for use by the TNRCC, in order to correct any decline in emissions repair effectiveness.
d)  Repair Technician Education

(1) Training Assessment

The repair industry will face its greatest educational challenge in 1997. Emissions inspection cutpoints (standards) will be lowered. Vehicles in which the owner took advantage of the hardship waiver in 1995 or 1996 will no longer be eligible for that type of waiver. Additional emissions testing may be required (i.e. diesels, on-board diagnostics, alternative fuels, etc.).

In order to meet these demands, the TNRCC will assess current curricula and any future improvements for inclusion of the following:

(a) diagnosis and repair of malfunctions in computer controlled, closed loop vehicles;

(b) the application of emissions control theory and diagnostic data to the diagnosis and repair of failures on the transient emissions test and the evaporative system functional checks; and

(c) central training on the various subsystems related to engine emissions control.
To ensure that adequate repair technician training is available in each I/M program area, the TNRCC may establish an advisory workgroup to assist in the assessment of emissions repair technician training, and may develop any necessary emissions repair trainer curriculum and educational facility requirements. Membership of such an advisory workgroup would be diverse and may include, but not be limited to, motorists in the community, automotive repair industry, equipment manufacturers, Automotive Service Association, ASE, local and regional governments, Managing Contractors, Automobile Dealers Association, parts manufacturers and dealers, vocational schools, and automobile manufacturers.

The TNRCC will assess the availability of repair technician training by:

(i) monitoring repair performance to detect any types of emissions problems that appear to cause difficulty for many technicians;

(ii) working with the ASE to detect the specific areas of the L1 tests that indicate where technicians might have a high likelihood for misdiagnosis of emissions test failures;
(iii) conducting periodic workshops and surveys with repair technicians to determine both the effectiveness of existing training and the areas where training is needed but not readily available for emissions repairs; and

(iv) surveying the types of emissions repair courses being offered by training providers for the area's automotive repair industry, including courses by correspondence and/or dealer provided courses.

The TNRCC will make the results of its investigations available to all parties interested in either developing or offering emissions repair training courses in the nonattainment areas. The TNRCC will actively disseminate this information to existing training providers for the area's automotive repair industry who may wish to meet the demand for emissions repair training. The TNRCC will not seek to replace either the functions or courses of existing training providers, but to supplement existing training. These existing providers will be regularly informed of all TNRCC involvement in emissions repair training.

The TNRCC will assure the availability of emissions repair courses for which substantial demand exists, and that other training providers appear either unable or unwilling to meet. Several training institutions in the nonattainment areas already
offer courses which prepare technicians to demonstrate their repair knowledge. In addition, literature distributed to each technician taking an ASE test lists several private entities which offer training courses and preparation materials for each ASE test. It is the TNRCC's understanding that several private entities are currently developing both courses and preparation guides for the ASE L1 test which will be offered for the first time in May, 1994. It is also the TNRCC's understanding that several institutions in the nonattainment areas offer technician training in the diagnosis and repair of malfunctions in computer-controlled closed-loop vehicles and various subsystems related to engine emissions control.

At the present time, the TNRCC is unaware of any private or public entity that offers training in the application of emissions control theory and diagnostic data to the diagnosis and repair of failures on the transient emissions test and the evaporative system functional checks. The utilization of diagnostic information on systematic or repeated failures observed in the transient emissions test and the evaporative system functional check are also currently not available.

After program implementation, the TNRCC will undertake a complete evaluation of the training resources available in each of the four the nonattainment areas as required by the EPA Final Rule.
(2) Working Group to Discuss Texas Repair Technician Educational Needs

The scope of the advisory work group will include, but may not be limited to, the determination of the availability of training, the diversity of training, the methods for evaluating training, the methods of conducting training, and methods for modifying training as needed. The TNRCC hopes that the working group creates a stimulus which encourages schools to adopt training courses.

Any repair technician training that will be offered, sponsored, or recognized by the TNRCC will be on a voluntary basis only and will not be required to obtain TNRCC emissions repair certification.

(3) Program Funding and Community Resources

The Congestion Mitigation and Air Quality Program funding may initially fund the development of the curriculum for the repair technician training program. Later, technician certification fees and/or emissions inspection fees may provide ongoing funding to administer and upgrade the program. In addition, the repair training technician program may be funded through private industry contributions.
The TNRCC is unaware of any community-based automotive training program currently capable of addressing the emissions repair requirements of I/M programs utilizing IM240 emissions testing technology. Therefore, the TNRCC proposes to implement and oversee an emissions repair technician training and certification program in conjunction with existing National Automotive Technicians Education Foundation-certified community-based automotive training programs.

(4) Emissions Repair Technician Certification Requirements

Emissions repair technicians wishing to apply for the TNRCC certification must have at least three years work experience and current ASE certification in the categories of engine performance (A8), electrical/electronic systems (A6), and engine repair (A1) and have taken and passed the ASE L1 test prior to making an application to the TNRCC. If there is a cost to report ASE scores to the TNRCC, the emissions repair technician shall be responsible for the expense. Once a passing score has been reported to the TNRCC, the technician shall pay an annual registration fee before being issued a CERTT identification number, which indicates compliance with all requirements of the voluntary emissions repair technician certification program. Refresher courses may be required if major curriculum or major emissions-
related technological changes occur, and the work group deems them necessary.

As of July 1, 1994, the TNRCC will accept CERTT applications. The TNRCC certification requirements for CERTTs are specified in 30 TAC §114.3.

(5) Certified Emissions Repair Technician

Privileges and Responsibilities

Benefits of being a CERTT include electronic access to emissions inspection data and technical assistance. In addition, only vehicle emissions-related repair work performed by a CERTT is applicable toward a TNRCC waiver. All CERTTs conducting emissions-related repairs to vehicles for the purpose of permitting a motorist to seek an emissions retest, must complete the VERR for their customers. Emissions inspection technicians will not perform any emissions retests until the motorist surrenders a completed VERR. Any CERTT failing to comply with the provisions of the voluntary CERTT program may be decertified by the TNRCC.

e) Certified Emissions Repair Facilities

(1) Certification Requirements
The TNRCC emissions repair facility certification is voluntary and includes requirements for staff, equipment, facilities, and audits. As of July 1, 1994, the TNRCC will accept CERFT applications. The TNRCC approval of CERFT applications is contingent upon specifications established by 30 TAC §114.3 regarding staff, specified operating equipment, display of CERFT signs, and reporting requirements.

(a) Staff Requirements

At a minimum, an emissions repair facility must have one CERTT employed on a full-time basis to apply for and maintain the TNRCC emissions repair facility certification.

(b) Equipment Requirements

The TNRCC has worked with the repair industry to develop equipment requirements for the TNRCC emissions repair facility certification. The TNRCC developed a list of specific equipment requirements with the help of several repair technicians in Texas. The following conditions will apply: only the functionality for each proposed item will be necessary; a single piece of equipment with multiple functions will be acceptable; and brand names, model years, etc. will not be specified.
The TNRCC shall work with the repair industry to develop facility requirements for CERFT certification. Upon certification, a TNRCC certification sign must be displayed in a visible area at the facility. CERTTs and CERFTs must notify the TNRCC whenever certification minimum requirements are not met (temporarily or permanently) and claim inactive certification. Deactivation of a CERFT will include the temporary removal of the TNRCC issued sign. If the certification requirements can not be corrected or the CERFT refuses to correct the situation within 30 days, the auditor will decertify the CERFT and/or CERTT. If a TNRCC auditor finds that a CERFT or CERTT is not meeting certification requirements and has not provided notification to the TNRCC prior to the auditor's arrival, the auditor will decertify the CERFT or/and CERTT immediately.

Both CERFTs and CERTTs must notify the TNRCC of any changes to the staff of a CERFT. Therefore, if the employment of any CERTT at a CERFT is initiated or discontinued, both the CERTT and the CERFT must notify the TNRCC.

CERFTs and CERTTs may terminate certification (decertify) or claim inactive certification at any time since certification is strictly voluntary. However, the TNRCC rules will establish the
CERFT requirements and the TNRCC reserves the right to decertify and/or deactivate any CERFT or CERTT for failure to meet minimum qualifications.

(d) Audit Requirements

The CERFT may be audited once or more per year to verify compliance with certification requirements. By applying and receiving TNRCC certification, CERFTs and CERTTs acknowledge and agree to TNRCC routine and random audits. Audits may include at a minimum, but are not limited to, reviews of recommended and actual repairs, equipment maintenance, and staffing requirements.

(2) Certified Emissions Repair Facility Effectiveness Report

The TNRCC will develop and provide a performance reporting system for providing feedback, including qualitative and statistical information, to individual certified emissions repair facilities on a regular basis (at least annually) regarding their success in repairing failed vehicles. Uncertified repair facilities which have provided a statistically significant number of repairs will be reported to the motorists. Reports will be available to the technicians on the I/M technician mailing list. The performance report will list the respective repair success rate, based on statistical tracking information and repair methodology.
(3) Certified Emissions Repair Facility Privileges and Responsibilities

A summary of the CERFT performance monitoring criteria and a randomly generated list of CERFTs shall be provided to motorists whose vehicles fail an emissions inspection in enhanced I/M program areas. The CERFTs will receive statistical and qualitative feedback (at least annually) regarding their success in repairing vehicle emissions failures. Any certified emissions repair facility failing to comply with the provisions of the voluntary CERFT program may be decertified by the TNRCC.

21) On-Road Testing (Amendment)

The TNRCC intends to utilize on-road testing for three purposes. First, it will provide a vehicle emissions baseline prior to mandatory enhanced I/M programs. Second, on-road testing will assess the impact of vehicles traveling from attainment counties to nonattainment counties. Finally, on-road testing will indicate vehicle repair effectiveness - more specifically, the lifespan of emissions-related repairs.

Through a competitive bid process, an on-road testing contractor shall be selected to collect, analyze, and report the results of on-road testing data to the TNRCC and the Managing Contractor. The TNRCC will consult with the applicable local organizations in
each nonattainment area to select suitable locations for on-road testing. For program audit purposes, on-road testing may include voluntary roadside pullovers to conduct anti-tampering checks in conjunction with loaded or idle emissions testing.

The TNRCC will conduct on-road testing on 1/2 of 1.0% of the subject vehicles, or 20,000 subject vehicles, whichever is less, in enhanced I/M areas. Emission measurements shall include HC, CO₂, CO, and, when available, NOₓ.

On-road testing shall monitor and identify those vehicles whose emissions are excessive (high emitters). Vehicles with emission readings of 6.0% CO or greater, using remote sensing devices, shall indicate high emitting vehicles. Standards for HC and NOₓ shall be adopted when sufficient data exists to support them and they are approved by the Administrator of EPA.

Covered vehicles identified as high emitters during on-road testing surveys shall be sent a notice in the mail from the TNRCC that requires the vehicle to receive an out-of-cycle emissions inspection at a vehicle emissions inspection facility. The vehicle identified as a high-emitting vehicle during an on-road testing survey must be returned to a vehicle emissions inspection facility for an out-of-cycle emissions inspection within 30 days of the receipt of notice that the vehicle was identified as a high emitter. A registered vehicle owner who fails to return the
vehicle for an out-of-cycle emissions inspection test within the allotted time may be subject to TNRCC enforcement action.

Any motorist whose vehicle fails the out-of-cycle emissions inspection shall be charged an emissions inspection fee, and must complete emissions-related repairs and return to a vehicle emissions inspection facility for an emissions inspection retest. The motorist must comply with vehicle repair requirements within 60 days after the failed out-of-cycle test. Repairs must be performed as necessary to pass this out-of-cycle inspection process. Any motorist failing to complete emissions-related repairs and fails to return their vehicle to an emissions inspection facility within the 60 day allotted time shall be subject to TNRCC enforcement action.

22) (No change.)

9. SOCIAL AND ECONOMIC CONSIDERATIONS OF THE PLAN (No change.)

10. FISCAL AND MANPOWER RESOURCES (No change.)

11. HEARING REQUIREMENTS (No change.)

APPENDICES (Amendment)
TECHNICAL SUPPLEMENT (No change.)
APPENDIX A

Federal Register Part VII, U.S. Environmental Protection Agency, 40 CFR Part 51, Inspection/Maintenance (I/M) Program Requirements; Final Rule, dated November 5, 1992 and subsequent amendments (EPA's Final I/M Rule)
APPENDIX B

Texas Health and Safety Code, Subtitle C, Air Quality, Revised May 12, 1992 and subsequent amendments
APPENDIX C

House Bill 1969 by 73rd Legislature amendment to the Texas Health and Safety Code §§382.037, 382.038, and 382.039
APPENDIX D

Texas Air Control Board Regulation IV, (30 TAC Chapter 114), Control of Air Pollution From Motor Vehicles, Revised November 10, 1993 and subsequent amendments (Texas Natural Resource Conservation Commission Rules)
APPENDIX E

Texas Natural Resource Conservation Commission Chapter of the 1993 Appropriations Bill
APPENDIX H

Texas Department of Transportation, Chapter 17. Division of Motor Vehicle Verification System (43 TAC §17.80) adopted by the Transportation Commission on October 28, 1993 and subsequent amendments
The Texas Air Control Board (TACB), "Basic and Enhanced Performance Standards" and the TACB Modeling Inputs for Proposed Programs, dated February 16, 1994