

AN INTRODUCTION TO TEXAS SENATE BILL 5

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ABSTRACT

Four areas in Texas have been designated by the U.S. Environmental Protection Agency (EPA) as non-attainment areas because ozone levels exceed the National Ambient Air Quality Standards (NAAQS) maximum allowable limits: Beaumont-Port Arthur, El Paso, Dallas-Ft. Worth, and Houston-Galveston-Brazoria. The El Paso area also violates the NAAQS maximum allowable limits for carbon monoxide and respirable particulate matter. These areas face severe sanctions, such as loss of access to federal transportation funds, if attainment is not reached by 2007. Four additional areas in the state are also approaching national ozone limits, including: Austin, Corpus Christi, San Antonio, and the Longview-Tyler-Marshall area. Ozone is formed when oxides of nitrogen (NO_x), volatile organic compounds (VOCs), and oxygen (O₂) combine in the presence of strong sunlight.

In response to this effort the Texas Natural Resource Conservation Commission (TNRCC) developed a strategy with the EPA that reduced VOCs from large regulated, stationary point sources by over 50 percent during the 1990 to 1996 period. Although this first strategy was very successful, levels of ozone failed to meet the national standards, and a second strategy had to be developed to achieve compliance with the ozone standard.

In 2001, the Texas State Senate passed Senate Bill 5 (SB 5) to further reduce ozone levels by encouraging the reduction of emissions of NO_x by sources that are currently not regulated by the TNRCC, including area sources (e.g., residential emissions), on-road mobile sources (e.g., all types of motor vehicles), and non-road mobile sources (e.g., aircraft, locomotives, etc.). This paper outlines the legislation, and responsibilities of the different

government entities and the important role that private industry is being encouraged to play.

BACKGROUND AND PURPOSE

Texas has four federal Clean Air Act non-attainment and three near-non-attainment areas, comprising 37 counties. These areas represent 70 percent of the state's population, 76 percent of aggregate employment, 82 percent of personal income, and 83 percent of gross state product. Because of Texas' integrated economy, all parts of the state have a stake in bringing these areas into compliance with clean air standards.

The National Ambient Air Quality Standards

The U.S. Environmental Protection Agency (EPA) has established National Ambient Air Quality Standards (NAAQS) for six major air pollutants called Criteria pollutant. These are: ozone, lead, carbon monoxide, sulfur dioxide, nitrogen dioxide, and respirable particulate matter. The standards were established to protect the public from exposure to harmful amounts of pollutants. When the pollutant levels in an area rise above a particular standard, the area is classified as "nonattainment" for that pollutant. The EPA then imposes federal regulations to limit pollutant emissions and designates a time period in which the area must again attain the standard.

Primary standards are set to protect public *health*, including the health of "sensitive" populations such as asthmatics, children, and the elderly. *Secondary standards* may be set to protect public *welfare*, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings. (USEPA, Office of Air Quality Planning & Standards, "National Ambient Air Quality Standards," <http://www.epa.gov/airs/criteria.html>).

**Air Pollution Concentrations Required
to Exceed the NAAQS**

Pollutant	Averaging Period	Standard	Primary NAAQS	Secondary NAAQS
Ozone	1-hr	Not to be at or above this level on more than three days over three years.	125 ppb	125 ppb
	8-hr	The average of the annual fourth highest daily eight-hour maximum over a three-year period is not to be at or above this level.	85 ppb	85 ppb
Carbon Monoxide	1-hr	Not to be at or above this level more than once per calendar year.	35.5 ppm	35.5 ppm
	8-hr	Not to be at or above this level more than once per calendar year.	9.5 ppm	9.5 ppm
Sulfur Dioxide	3-hr	Not to be at or above this level more than once per calendar year.	–	550 ppb
	24-hr	Not to be at or above this level more than once per calendar year.	145 ppb	–
	Annual	Not to be at or above this level.	35 ppb	–
Nitrogen Dioxide	Annual	Not to be at or above this level.	54 ppb	54 ppb
Respirable Particulate Matter (10 microns or less) (PM ₁₀)	24-hr	The three-year average of the annual 99th percentile for each monitor within an area is not to be at or above this level.	155 µg/m ³	155 µg/m ³
	Annual	The three-year average of annual arithmetic mean concentrations at each monitor within an area is not to be at or above this level.	51 µg/m ³	51 µg/m ³
Respirable Particulate Matter (2.5 microns or less) (PM _{2.5})	24-hr	The three-year average of the annual 98th percentile for each population-oriented monitor within an area is not to be at or above this level.	66 µg/m ³	66 µg/m ³
	Annual	The three-year average of annual arithmetic mean concentrations from single or multiple community-oriented monitors is not to be at or above this level.	15.1 µg/m ³	15.1 µg/m ³
Lead	Quarter	Not to be at or above this level.	1.55 µg/m ³	1.55 µg/m ³

Source: TNRCC, www.tnrcc.state.tx.us/air/monops/naaqs.html

Ozone

In July 1997, the EPA established a new National Ambient Air Quality Standard for ground-level ozone. The EPA is currently phasing out and replacing the previous one-hour standard with a new eight-hour standard to protect public health against longer exposures to the air pollutant.

Communities that were not in attainment of the one hour standard in July 1997 must first meet the one-hour standard, then the EPA will evaluate their air quality by the new, eight-hour standard.

Under the **one-hour standard**, measured ozone concentrations of 0.125 ppm (125 parts per billion) or above are considered to exceed the

standard. The standard is not to be exceeded in an area more than three times in three consecutive years at the same monitoring site. If the standard is exceeded four times in three years at one site, then the area is in violation of the standard and no longer in "attainment."

Four areas in Texas – Houston/Galveston/Brazoria, Beaumont/Port Arthur, Dallas/Fort Worth, and El Paso – are in nonattainment of the one-hour standard. Nonattainment counties are: Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, Waller, Hardin, Jefferson, Orange, Collin, Dallas, Tarrant, and El Paso.

The EPA will use the eight-hour standard to judge the air quality of all other communities and determine which ones are not in attainment of the new standard. Its decision will be based upon measurements taken during a three-year period (1997 through 1999). A community will meet the new standard when the three-year average of the fourth-highest daily maximum eight-hour concentration measured at each monitoring site is less than 85 parts per billion.

A New Approach

The Texas Natural Resource Conservation Commission (TNRCC) has submitted and maintains a state implementation plan to regulate emissions in the non-attainment areas. However, there are significant areas of potential emissions reductions that are not subject to TNRCC regulation. S.B. 5 establishes a Texas Emissions Reduction Plan (TERP) to reduce emissions in the state through incentive programs, and initiatives to broaden participation and increase flexibility in responding to the need to clean the air.

The bill recognizes that regional economic and health impacts can extend into adjacent or nearby counties. These additional "affected counties" were made eligible for all incentives and subject to all requirements of the bill. Affected counties are: Bastrop, Bexar, Caldwell, Comal, Ellis, Gregg, Guadalupe, Harrison, Hays, Johnson, Kaufman, Nueces, Parker, Rockwall, Rusk, San Patricio, Smith, Travis, Upshur, Victoria, Williamson and Wilson.

SB 5 represents a shift in the state's clean air strategy. In exchange for new incentives and policy initiatives, the Legislature directed the TNRCC to drop earlier, controversial elements

of the most recent, continuously maintained State Implementation Plan. TNRCC replaced SIP provisions to restrict early-morning construction activities in the Houston and Dallas areas until later in the day, and requirements in both of those urban areas for accelerated purchases of cleaner off-road diesel equipment.

EPA's Regional Administrator testified before a Senate committee considering SB 5 that the innovative use of incentives could be far-reaching. The Administrator told the Senate Natural Resources Committee: "This bill has the potential to help Texas achieve its air quality goals by using carrots instead of sticks, which is far more effective, and by getting new technology into place faster than we see with the normal turnover" of vehicles and equipment. (Testimony before Senate Natural Resources Committee, Texas State Senate, March 20, 2001.)

This paper provides, we hope, a fairly detailed introduction to SB 5. First the legislation is analyzed to lay out its essential features and its comprehensive reach. Then the building energy features are described in more detail. A final section of definitions is appended because the discussion of emission reduction credits for the incentive programs and initiatives envisioned by SB 5 must take place in relation to regulatory language and concepts.

ANALYSIS

Texas Emissions Reduction Plan

S.B. 5 amends the Health and Safety Code to require the Texas Natural Resource Conservation Commission (TNRCC), along with the Public Utility Commission of Texas (PUC), the Comptroller of Public Accounts (comptroller), and the Texas Council on Environmental Technology (council) to establish and administer the **Texas Emissions Reduction Plan (TERP)**. The bill requires TNRCC, the comptroller, and the council to provide grants or funding under the plan for:

- a diesel emissions reduction incentive program,
- a motor vehicle purchase or lease incentive program,
- a new technology research and development program, and
- requires PUC to provide grants or funding for an energy efficiency grant program.

- Also, the bill adopts building energy performance standards, and
- requires energy efficiency plans for facilities of certain political subdivisions (except school districts) in non-attainment areas and affected counties.

The bill provides that equipment purchased before September 1, 2001 is not eligible for a grant or other funding under the plan. It establishes the Texas emissions reduction plan fund (fund) and sets forth provisions relating to the fees, surcharges, and payments that compose the fund, and the use and allocation of the fund for programs implemented and administered under the plan.

The bill provides for administration and coordination of the plan by TNRCC.

The bill establishes a Texas Emissions Reduction Plan Advisory Board (advisory board) consisting of 15 appointed members and requires the advisory board to review the plan and recommend to TNRCC changes to revenue sources or financial incentives or any legislative, regulatory, or budgetary changes needed.

The bill provides for the expiration of provisions relating to the Texas emissions reduction plan, including the diesel emissions reduction incentive program, the motor vehicle purchase or lease incentive program, the energy efficiency grant program, and the Texas emissions reduction plan fund on August 31, 2008. The Act took effect September 1, 2001.

Diesel Emissions Reduction Incentive Program

SB 5 requires TNRCC to establish and administer a diesel emissions reduction incentive program, under which TNRCC is required to provide grants for eligible projects to offset the incremental cost of projects that reduce emissions of oxides of nitrogen from high-emitting diesel sources in non-attainment or affected counties of the state. TNRCC was required to establish program criteria no later than September 1, 2001.

The bill requires TNRCC to develop a purchase or lease incentive program for new on-road diesels and to adopt rules necessary to implement the program and to reimburse an eligible person who purchases or leases a new on-road diesel on or after January 1, 2002.

Motor Vehicle Purchase or Lease Incentive Program

The bill requires TNRCC and the comptroller to develop a purchase or lease incentive program to authorize incentives for the purchase or lease of new, fuel efficient, light-duty motor vehicles and to adopt rules necessary to implement the program not later than August 1, 2002.

At the beginning but not later than July 1 of each year preceding the vehicle model year, manufacturers of motor vehicles are required to provide a list of the new vehicle models that the manufacturer intends to sell in this state during that model year that meet new incentive emissions standards. The bill requires publication and distribution of these lists by the comptroller .

A consistent theme of the bill is to increase access to information about efficiency for purchasers of various types of energy consuming equipment. The bill requires, for instance, that a motor vehicle manufacturer or distributor affix on each new light-duty motor vehicle for sale or lease in Texas a clearly legible label that shows the vehicle's class rating under the United States Environmental Protection Agency's (EPA) vehicle class rating system. To receive an incentive, the purchaser or lessee of an eligible new light-duty motor vehicle must apply for the incentive.

The bill also sets forth provisions relating to a public information program for the motor vehicle purchase or lease incentive program and the report of the program by the comptroller to TNRCC. The bill requires TNRCC no later than August 1, 2002 to publish the first annual list of vehicles eligible for light-duty motor vehicle purchase or lease incentives.

Energy Efficiency Grant Program

SB 5 requires the PUC to develop an energy efficiency grant program (using program templates consistent with rules under Sec. 39.905 Utilities Code) to increase the retirement, replacement, and recycling of materials and appliances that contribute to peak energy demand. The bill sets forth provisions regarding the administration of grants, the limitation on the duty of participating utilities, and a required annual report by PUC, in cooperation with the Energy Systems Laboratory (laboratory) of the Texas A&M University System, to TNRCC.

The annual report must quantify, by county, reductions of energy, demand and associated emissions.

New Technology Research and Development Program

SB 5 establishes the Texas Council on Environmental Technology (council) to identify, evaluate, and deploy new technologies and assist TNRCC and EPA in the process of ensuring credit for technological advancements. The bill requires the council to establish and administer a new technology research program to provide grants to be used to support development of emissions-reducing technologies with designated monies from the environmental research fund contained within the general revenue fund.

The bill requires the council to rapidly issue a request for proposals for projects and sets forth provisions relating to the specific request of the council for proposals or program opportunity notices for technology projects. The bill also sets forth provisions regarding the priorities and considerations of eligibility, the application process, and cost-sharing of projects for a grant under the new technology research and development program.

Texas Building Energy Performance Standards

SB 5 adopts an energy code for building construction within the state. It adopts the energy efficiency chapter of the International Residential Code as the energy code for single-family residential construction; and for all other residential, commercial, and industrial construction, adopts the International Energy Conservation Code, as these existed on May 1, 2001. The bill requires a municipality to adopt its own administrative and enforcement procedures no later than September 1, 2002 and authorizes a municipality or county to establish procedures to adopt local amendments. Local amendments in non-attainment areas and affected counties may not reduce the stringency of energy code requirements. The bill also provides for the enforcement of these energy standards for construction outside of a municipality. The laboratory must annually report to the TNRCC the energy savings from energy code implementation and local code enhancements as well as other programs in this chapter.

The bill sets forth information and technical assistance that the laboratory is required to make available or may provide relative to code implementation. It also requires the laboratory to develop a standardized report format relating to energy performance to be used by providers of home energy ratings, and an information program about home energy ratings, to be available by September 1, 2002.

Energy Efficiency Programs in Certain Political Subdivisions

The bill requires affected counties or political subdivisions, other than school districts, in a non-attainment area or in an affected county to implement additional energy efficiency measures to reduce electricity consumption by the existing facilities of the political subdivision. It sets forth provisions regarding the goals and reporting of plans and progress to the State Energy Conservation Office (SECO). SECO is to provide an annual evaluation of the effectiveness of the energy efficiency programs of state agencies and political subdivisions.

Federal Recognition of Emissions Reduction

SB 5 requires TNRCC, using information derived from the required reports by PUC, the laboratory, and the State Energy Conservation Office, to take all appropriate and necessary actions for EPA to credit the emissions reductions achieved under the Texas emissions reduction plan and Texas building energy performance standards to appropriate emissions reduction objectives in the state implementation plan. Excerpts from TNRCC's rules for an emissions cap and trade program provide an introduction to some of the basic language and limitations on emission credits that will carry over to the discussions and demonstration requirements for new programs:

- 101.301. Purpose. The purpose of this division is to allow the operator of a source to generate emission credits by reducing emissions beyond the level required by any local, state, and federal regulation and to allow the operator of another source to use these credits. Participation under this division is strictly voluntary.
- 101.302. ...Reductions of volatile organic compounds (VOCs) and nitrogen oxides (NO_x) may qualify as emission credits. Reductions of other

pollutants do not qualify as emission credits under this division. Reductions of one pollutant may not be used to meet the requirements of another pollutant, except at such time as urban airshed modeling demonstrates that one ozone precursor may be substituted for another, subject to executive director and the United States Environmental Protection Agency approval. (See also "Air Quality Modeling & Data Analysis, TNRCC, <http://www.tnrcc.state.tx.us/air/aqp/airmodeling.html#UAM>.)

... Emission reduction credits (ERCs) are generated from reductions beyond those required. *To be certified as an emission credit, an emission reduction must be enforceable, permanent, quantifiable, real, and surplus.* The certified reduction must be surplus at the time it is created, as well as when it is used.... And the source's annual emissions prior to the emissions credit application must have been reported or represented in the emissions inventory used for SIP determination.

The bill required TNRCC to submit to EPA by October 1, 2001 a revision of the state implementation plan substituting provisions of this Act for requirements in the plan perceived as onerous: the shift of heavy construction equipment from morning to afternoon use in In Houston and DFW regions, and the early purchase of cleaner (Tier I and II) diesel equipment..

Low-Emissions Vehicles Insignia for Motor Vehicles

The bill amends the Transportation Code to require the Department of Public Safety (DPS) to issue at the time of registration or re-registration of a motor vehicle a specially designed "low-emissions vehicle" insignia for a motor vehicle that is eligible for a motor vehicle purchase or lease incentive. The bill also sets forth provisions relating to the fee for the insignia and the distribution of the funds under the plan to pay for the cost to the county for administering the insignia. Provisions relating to the insignia expire on August 31, 2008. Until August 31,

2008, the bill entitles motor vehicles with a "low-emissions vehicle" insignia in an easily readable location on the back of the vehicle to travel in a preferential car pool or high occupancy vehicle lane, regardless of the number of occupants in the motor vehicle.

Fees

The bill provide for the imposition of a surcharge on the registration of a truck-tractor or commercial motor; requires DPS to collect a fee for the inspection of a motor vehicle registered in an area of the state that is not a non-attainment or affected county and a \$5 fee if the vehicle is registered in a non-attainment or affected county; provides for the expiration of the provisions regarding inspection fees and surcharges on August 31, 2008.

The bill amends the Tax Code to provide for a surcharge of 1% on lease or rental amount on the retail sale, lease, or rental, of new or used off-road, heavy-duty diesel equipment. The bill provides for the imposition of a surcharge of 2.5% on every retail sale or lease of every on-road diesel motor vehicle over 14,000 pounds and is of a model year 1996 or earlier that is sold or leased in this state. There are exceptions for: diesel fuel delivered to a common carrier, ocean-going vessel or barge for export; diesel fuel sold to the federal government for federal use; diesel fuel delivered to certain bulk storage facilities; diesel fuel delivered to storage facilities for certain aviation uses; diesel fuel delivered to certain railway engines, motorboats, refrigeration units or other stationary equipment powered by a separate motor from a separate fuel supply tank; kerosene used exclusively for non-highway uses; diesel fuel delivered from one aviation fuel dealer to another; diesel fuel sold to a school district in this state for its exclusive use; diesel fuel used exclusively for public school transportation services; diesel fuel delivered to certain commercial vehicles used exclusively for certain fixed route or schedule passenger transport; and the tax does not apply to the volume of water that is blended together with taxable diesel fuel that is clearly labeled.

The bill provides for a surcharge of 10% (of total fees due under sec 502.167) on registration of truck-tractor or commercial motor vehicles. The bill provides for an additional inspection fee of \$10 for a commercial vehicle required to be inspected.

The bill amends the Transportation Code to require a motor vehicle inspection station to collect a fee of \$225 for a motor vehicle inspection for a vehicle that is brought into Texas except by military personnel and their dependents. This provision, intended to provide approximately two thirds of the funding for incentives and programs, has been challenged, in court, by auto dealers and is not being collected. Also, some sales tax receipts were over-projected by the state's revenue estimators. As a result, first year funding is currently expected to be available at only 22% of the originally estimated levels. This has resulted in concentration of incentive programs on only the non-attainment areas, and a scaling back of each of the programs. It remains to be seen how this setback will affect the goals of the SIP.

The bill provides for the expiration of the provisions relating to surcharges on September 30, 2008.

Funding Allocation

The bill allocates 82% of the funds collected to the diesel emissions reduction and motor vehicle incentive programs. The PUC is required to develop an energy efficiency grant program with the grants being administered by electric utilities, cooperatives and municipally owned utilities.

This program will receive 7.5% of the TERP fund. A further 7.5% of the fund will be allocated to new technology research and development administered by the Texas Council on Environmental Technology.

BUILDING ENERGY PERFORMANCE PROVISIONS

In the State Implementation Plan, the TNRCC has effectively pursued those sources of pollution which fall within its regulatory purview. In SB 5, additional sources of pollution are addressed with innovative incentive programs. In particular, emissions from diesel engines and from vehicular traffic, major unregulated sources, may be addressed through the action and choices of individuals and individual businesses. One of the most far-reaching innovations of SB 5, however, is the package of measures aimed at market transformation in the building sector.

Complementing TNRCC's new rules requiring efficient small boilers and furnaces by summer, 2002, SB 5 addresses elimination of the permanent energy drain of poor construction. These provisions are included in a new Chapter 388 of Subtitle C, Title 5 of the Health and Safety Code.

388.001	Legislative findings.	This section establishes the policy purpose of an energy code to reduce air pollutant emissions affecting health; moderate future peak electric power demand, assuring reliability; and controlling energy costs for residents and businesses in the state.	
388.002	Definitions	This section defines administrative terms and identifies responsible organizations referred to in the chapter.	
388.003	Adoption of Building Energy Performance Standards	This section adopts the energy efficiency chapter of the International Residential Code as an energy code for single family residential construction, and the International Energy Conservation Code for all other residential, commercial and industrial construction in the state. It requires that municipalities establish procedures for administration and enforcement, and ensure that code-certified inspectors perform inspections. Provides that local amendments, in non-attainment areas and affected counties, may not result in less stringent energy efficiency requirements. The laboratory (ESL) is to review local amendments and submit annual report of savings impacts to TNRCC. ESL is authorized to collect fees for certain of	Effective date is 9-1-01. The edition of referenced codes is the edition current at May 1, 2001. This includes the Supplement to these codes published in March, 2001. Deadline for local administration and enforcement procedures is 9-1-02. (SB 365 separately requires adoption of the International Residential Code by January 1, 2002.)

		its tasks in Secs. 388.004, 388.007 and 388.008.	
388.004	Enforcement of Energy Standards Outside of Municipality	Outside of municipal jurisdictions: <ol style="list-style-type: none"> 1. A building certified through an energy efficiency (above-code) program is considered in compliance; 2. A building inspected by a code-certified inspector (warranty inspection) is considered in compliance; otherwise, 3. A builder may self-certify a building with a form to be provided by ESL. 	This provides mechanisms "deemed to comply" with statute to permit demonstration of compliance without additional policing .
388.005	Energy Efficiency Programs in Certain Political Subdivisions	Each political subdivision, except a school district, in a non-attainment area or an affected county is to implement energy conservation measures to reduce electric consumption in its facilities by a goal of 5 percent per year for 5 years. Each political subdivision must report annually to the State Energy Conservation Office (SECO) on its progress under this section.	Beginning 1-1-02. A local government must implement the efficiency measures that it determines to be cost effective.
388.006	State Energy Conservation Office Evaluation	SECO is required to report annually to TNRCC an evaluation of the effectiveness of state and political subdivision energy efficiency programs.	
388.007	Distribution of Information and Technical Assistance	ESL is responsible for making available code implementation materials for use by building community. ESL may provide technical assistance to political subdivisions.	ESL has initiated a training and outreach effort and has begun developing materials for an informational web site at http://eslsb5.tamu.edu .
388.008	Development of Home Energy Ratings	ESL is responsible for developing a standardized reporting format for home energy ratings, and establishing a public information program about home energy ratings.	To be implemented by 9-1-02.
389.002	Use of Certain Information for Federal Recognition of Emissions reductions	TNRCC "...shall take all appropriate and necessary actions so that emissions reductions achieved by means of activities under chapters 386 and 388 are credited by the United States Environmental Protection Agency to the appropriate emission reduction objectives in the state implementation plan."	Quantification is the key to getting credit.

SUMMARY

SB 5 is an innovative and fairly comprehensive piece of legislation that was intended to eliminate provisions of the SIP that were perceived to be onerous, especially on the construction industry, and replace these with incentive programs and policy initiatives which would get the same or better results through influencing market choices. The goals are ambitious and the faith in broad participation to resolve air quality problems is high. The bill

adopts energy codes as a major lever in transforming the market for more efficient building construction and establish a new baseline for what will be either marketable or creditable as "energy efficient." The bill mandates the adoption of the energy efficiency chapter (chapter 11) of the International Residential Code for single-family residential construction and the International Energy Conservation Code for all other residential, commercial and industrial construction. It provides for application statewide including

outside municipal jurisdiction and requires that municipalities establish administrative and enforcement procedures and ensure that code-certified inspectors perform inspections. The Energy Systems Laboratory of Texas A&M University is designated to provide technical assistance and to develop a standardized reporting format for home energy ratings.

A political subdivision (local government) should be able to demonstrate that it reasonably surveyed its facilities to identify all possible energy efficiency measure and evaluated each for cost effectiveness. The political subdivision must implement the efficiency measures that it determines to be cost effective. The criteria established should be documented and consistently applied. The State Energy

REFERENCES

Senate Bill 5, Acts of the 77th Texas Legislature (Regular Session), 2001.

“Bill Analysis, SB 5, 77 (R)” Senate Research Center, Texas State Senate, June, 2001.

“SB 5: Summary of Building Energy Provisions”, Texas Building Energy Institute, June, 2001.

“What is the Texas Emissions Reduction Plan (TERP)”, Texas Natural Resources Conservation Commission, www.tnrcc.state.tx.us.

“National Ambient Air Quality Standards”, Texas Natural Resources Conservation Commission, www.tnrcc.state.tx.us/air/monops/naaqs.html

“Introduction to SIPs”, Texas Natural Resources Conservation Commission. www.tnrcc.state.tx.us/oprd/sips/sipintro.html

“Ozone: The Facts”, Texas Natural Resources Conservation Commission. www.tnrcc.state.tx.us/air/monops/ozonefacts.html

TNRCC Rules, Chapter 101, Subchapter H: Emissions Banking & Trading, Division 1: Emission Credit Banking & Trading, effective June 13, 2001.

Conservation Office is required to provide forms to affected local governments to submit the required annual reports. The initial plan year for electric consumption data is 2001.

The Energy Systems Laboratory will assist the other public agencies involved in a new and challenging effort to provide reliable methods and data to assure that energy savings and related emission reductions do, in fact, occur and receive appropriate credit from the US EPA through the Texas Natural Resources Conservation Commission. We’ll all breathe a little easier.

DEFINITIONS

In order to understand some of the basic vocabulary and assumptions of the TERP, the following definitions have been excerpted from TNRCC Rules, Chapter 101, Subchapter H: Emissions Banking & Trading, Division 1: Emission Credit Banking & Trading, effective June 13, 2001.

Activity – the amount of activity at a source measured in terms of production, use, raw materials input, vehicle miles traveled (VMT), or other similar units that have a direct correlation with the economic output and emission rate of the source (i.e., mass emitted per unit of activity).

Applicable emission point – the source which is either generating an emission reduction or using an emission credit.

Area source – any source included in the agency emission inventory under the area source category.

Certified – any emission reduction that is determined to be creditable upon review and approval by the executive director [of TNRCC].

Emission reduction – an actual reduction of emissions from a stationary or mobile source.

Emission reduction credit (ERC) – a certified emission reduction that is created by eliminating future emissions, quantified during or before the period in which emission reductions are made ,and expressed in tons per year.

Generator – the owner or operator of a source that creates an emission reduction.

Most stringent allowable emissions rate – the emission rate of a source, considering all limitations required by applicable local, state, and federal regulations.

Ozone season – the portion of the year when ozone monitoring is federally required to occur in a specific geographic area.

Permanent – an emission reduction that is long-lasting and unchanging for the remaining life of the source. Such a time period must be enforceable.

Protocol – a replicable and workable method of estimating emission rates or activity levels used

to calculate the amount of emission reduction generated or credits required for stationary or mobile sources.

Quantifiable – an emission reduction that can be measured or estimated with confidence using replicable methodology.

Surplus – an emission reduction that is not otherwise required of a source by any local, state or federal law, regulation, or agreed order.

User – the owner or operator of a source that acquires and uses emission credits to meet a regulatory requirement, demonstrate compliance, or offset an emission increase.