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*Thomas Estrada*

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GENERAL PROVISIONS

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**TITLE 30. ENVIRONMENTAL QUALITY**

**PART 1. TEXAS COMMISSION ON ENVIRONMENTAL QUALITY**

**CHAPTER 101. GENERAL AIR QUALITY RULES**

**SUBCHAPTER H. EMISSIONS BANKING AND TRADING**

**DIVISION 6. HIGHLY-REACTIVE VOLATILE ORGANIC COMPOUND EMISSIONS CAP AND TRADE PROGRAM**

**30 TAC §§101.390 - 101.394, 101.396, 101.399 - 101.401, 101.403**

The Texas Commission on Environmental Quality (commission) adopts new §§101.390 - 101.394, 101.396, 101.399 - 101.401, and 101.403. These new sections are being adopted in Subchapter H, Emissions Banking and Trading, new Division 6, Highly-Reactive Volatile Organic Compound Emissions Cap and Trade Program. Sections 101.390 - 101.394 and §§101.399 - 101.401 are adopted *with changes* to the proposed text as published in the July 9, 2004, issue of the *Texas Register* (29 TexReg 6522). Section 101.396 and §101.403 are adopted *without changes* to the proposed text and will not be republished.

The new sections will be submitted to the United States Environmental Protection Agency (EPA) as revisions to the state implementation plan (SIP).

**BACKGROUND AND SUMMARY OF THE FACTUAL BASIS FOR THE ADOPTED RULES**

The Houston/Galveston/Brazoria (HGB) ozone nonattainment area is classified as Severe-17 under the Federal Clean Air Act Amendments of 1990 (as codified in 42 United States Code (USC), §7401 *et seq.*), and therefore, is required to attain the national ambient air quality standard (NAAQS) one-hour ozone standard of 0.12 parts per million (125 parts per billion) by November 15, 2007. The HGB area consists of Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties, and the commission has been working to develop a demonstration of attainment in accordance with 42 USC, §7410. The most relevant HGB SIP revisions to date are the December 2000 one-hour ozone standard attainment demonstration, the September 2001 follow-up revision, and the December 2002 nitrogen oxides (NO<sub>x</sub>)/highly-reactive volatile organic compound (HRVOC) revision.

This process has proven to be challenging due to the magnitude of reductions needed for attainment. The emission reduction requirements included as part of the December 2000 SIP revision represent substantial, intensive efforts on the part of stakeholder coalitions in the HGB area, in partnership with the commission, to address ozone. These coalitions include local governmental entities, elected officials, environmental groups, industry, consultants, and the public, as well as EPA and the commission, who have worked diligently to identify and quantify control strategy measures for the HGB area attainment demonstration.

*December 2000*

The December 2000 SIP revision contained rules and photochemical modeling analyses in support of the HGB area ozone attainment demonstration. The majority of the emissions reductions identified in this revision were from a 90% reduction in point source NO<sub>x</sub>. The modeling analysis also indicated a shortfall in necessary NO<sub>x</sub> emission reductions, such that an additional 91 tons per day (tpd) of NO<sub>x</sub> reductions were necessary for an approvable attainment demonstration. In addition, the revision contained post-1999 rate-of-progress (ROP) plans for the milestone years 2002 and 2005 and for the attainment year 2007, and transportation conformity motor vehicle emissions budgets (MVEB) for NO<sub>x</sub> and volatile organic compound (VOC) emissions. The SIP also contained enforceable commitments to implement further measures in support of the HGB area attainment demonstration, as well as a commitment to perform and submit a midcourse review.

*September 2001*

The September 2001 SIP revision for the HGB area included the following elements: 1) corrections to the ROP table/budget for the years 2002, 2005, and 2007 due to a mathematical inconsistency; 2) incorporation of a change to the idling restriction control strategy to clarify that the operator of a rented or leased vehicle is responsible for compliance with the requirements in situations where the operator of a leased or rented vehicle is not employed by the owner of the vehicle (the commission committed to making this change when the rule was adopted in December 2000); 3) incorporation of revisions to the clean diesel fuel rules to provide greater flexibility for compliance with the requirements of the rule while preserving the emission reductions necessary to demonstrate attainment in the HGB area; 4) incorporation of a stationary diesel engine rule that was developed as a result of the state's analysis of EPA's reasonably available control measures; 5) incorporation of revisions to the point source NO<sub>x</sub> rules; 6) incorporation of revisions to the emissions cap and trade rules; 7) removal of the construction equipment operating restriction and the accelerated purchase requirement for Tier 2/3 heavy-duty equipment; 8) replacement of these rules with the Texas Emission Reduction Plan program; 9) layout of the midcourse review process that details how the state will fulfill the commitment to obtain the additional emission reductions necessary to demonstrate attainment of the one-hour ozone standard in the HGB area; and 10) replacement of 2007 ROP MVEBs to be consistent with the attainment MVEBs.

As was discussed in the December 2000 revision, the modeling resulted in a 141 parts per billion peak ozone level that correlated to a shortfall calculation of 91 tpd NO<sub>x</sub> equivalent emissions. An additional five tpd were added to the shortfall, because the state could not take credit for the NO<sub>x</sub> reductions associated with the diesel pull-ahead strategy. The excess emissions from this strategy were not included in the original emissions inventory. The gap control measures adopted in December 2000, along with the

stationary diesel engine rules included in the September 2001 revision, resulted in NO<sub>x</sub> reductions of 40 tpd, which left a total remaining shortfall of 56 tpd. The state committed to address this shortfall through the midcourse review process.

#### *December 2002*

In January 2001, the Business Coalition for Clean Air--Appeal Group (BCCA-AG) and several regulated companies challenged the December 2000 HGB SIP and some of the associated rules. Specifically, the BCCA-AG challenged the 90% NO<sub>x</sub> reduction requirement from stationary sources in the HGB area. In May 2001, the parties agreed to a stay in the case, and the Honorable Margaret Cooper, Travis County District Court Judge, signed a consent order, effective June 8, 2001, requiring the commission to perform an independent, thorough analysis of the causes of rapid ozone formation events and identify potential mitigating measures not yet identified in the HGB area attainment demonstration, according to the milestones and procedures in Exhibit C (Scientific Evaluation) of the order.

In compliance with the consent order, the commission conducted a scientific evaluation based in large part on aircraft data collected by the Texas 2000 Air Quality Study (TexAQS). The TexAQS, a comprehensive research project conducted in August and September 2000 involving more than 40 research organizations and over 200 scientists, studied ground-level ozone air pollution in the HGB area and east Texas regions.

To address findings from TexAQS and to fulfill obligations in the consent order, the commission adopted a SIP revision in December 2002 that focused on replacing the most stringent 10% industrial NO<sub>x</sub> reductions with VOC controls. In light of the TexAQS study, the commission conducted further modeling analysis of ambient VOC data. The photochemical grid modeling results and analysis indicated that the HGB area can achieve the same air quality benefits with industrial VOC emission reductions, combined with 80% industrial NO<sub>x</sub> emissions reductions, as would be realized with a 90% industrial NO<sub>x</sub> emission reduction. An analysis of automated gas chromatograph data revealed that four compounds were frequently responsible for high reactivity days: ethylene, propylene, 1,3-butadiene, and butenes. As such, these compounds were selected as the best candidates for HRVOC emission controls.

The commission adopted revisions to the industrial source control requirements, one of the control strategies within the existing federally approved SIP. The December 2002 revision contained new rules to reduce HRVOC emissions from four key industrial sources: fugitives, flares, process vents, and cooling towers. The adopted rules target HRVOCs while maintaining the integrity of the SIP. Analysis showed that limiting emissions of ethylene, propylene, 1,3-butadiene, and butenes in conjunction with an 80% reduction in NO<sub>x</sub> is equivalent in terms of air quality benefit to that resulting from a 90% point source NO<sub>x</sub> reduction requirement. As such, the HRVOC rules are performance-based and emphasize monitoring, recordkeeping, reporting, and enforcement, rather than establishing individual unit emission rates.

The technical support documentation accompanying the 2002 SIP revision describes modeling and ambient data analyses which demonstrate that reduction in emissions of HRVOCs can replace the last 10% of industrial NO<sub>x</sub> controls.

#### *Current SIP Revision*

The commission committed in 2000 to perform a midcourse review to ensure attainment of the one-hour ozone standard.

The midcourse review process provides the opportunity to update emissions inventory data, use current modeling tools, such as MOBILE6, and enhance the photochemical grid modeling. The data gathered from the TexAQS continues to improve photochemical modeling of the HGB area. The collection of these technical improvements give a more comprehensive understanding of the ozone challenge in the HGB area that is necessary to develop an attainment plan. In the early part of 2003, the commission was preparing to move forward with the midcourse review; however, during the same time period EPA announced its plans to begin implementation of the eight-hour ozone standard. The EPA published proposed rules for implementation of the eight-hour ozone standard in the June 2, 2003, issue of the *Federal Register* (68 FR 32802). In the same time frame, EPA also formalized its intentions to designate areas for the eight-hour ozone standard by April 15, 2004, meaning states would need to reassess their efforts and control strategies to address this new standard by 2007. Recognizing that existing one-hour nonattainment areas would soon be subject to the eight-hour ozone standard, and in an effort to efficiently manage the state's limited resources, the commission decided to develop an approach that addresses the outstanding obligations under the one-hour ozone standard while beginning to analyze eight-hour ozone issues.

The commission's one-hour ozone SIP commitments include: 1) completing a one-hour ozone midcourse review; 2) performing modeling; 3) adopting measures sufficient to fill the NO<sub>x</sub> shortfall; 4) adopting measures sufficient to demonstrate attainment; and 5) revising the MVEB using MOBILE6.

Results from the TexAQS and recent photochemical modeling suggest that ozone formation in the HGB area stems from a combination of two different types of emissions. The first is the daily routine emissions of a large industrial base located in an urban core with on-road and non-road emissions typical of a city of four million people. These emissions can be thought of as the base of emissions that could be expected at any given time in the HGB area. The second type of emissions can be characterized as the fluctuations that occur daily, even hourly, in the HGB area resulting from sudden sharp increases in short-term HRVOC releases. While these emission fluctuations can occur in any industrial area, the dense concentration of chemical and refinery sites makes this a particular concern in the HGB area.

Ozone forms rapidly when these variable emissions occur in the immediate presence of NO<sub>x</sub>, under the right atmospheric conditions. The design value in the HGB area is driven by a combination of these two types of emissions. To address ozone formation in the HGB area, a dual strategy is needed to reduce the base of emissions existing continuously in the HGB area as well as restrictions on a short-term basis to address short-term variations. To address the "base" emissions, control strategies are needed that resemble those used by other metropolitan areas with a combination of a large urban population and a significant industrial base. These strategies include vehicle inspection and maintenance, cleaner fuels, cleaner technology for construction equipment, industrial-based controls for routine emissions of NO<sub>x</sub> and VOCs, and a long-term cap on HRVOCs. To address the short-term variable emissions, a restriction of the maximum hourly rate of HRVOCs is necessary. This restriction would apply to both unauthorized emissions as well as permitted emissions that may fluctuate on an hourly basis.

To achieve the necessary HRVOC reductions, the commission developed a dual approach: address variable short-term emissions through a not-to-exceed hourly emission limit and address steady-state and routine emissions through an annual cap. The annual HRVOC cap and fugitive emission rules will reduce the overall reactivity in the airshed by removing the compounds that are most prevalent and most likely to react rapidly enough to cause one-hour ozone exceedances.

The annual HRVOC cap in Harris County will be reduced from the existing HRVOC cap in response to the attainment demonstration modeling. The annual HRVOC cap in the seven-county surrounding area is equivalent to the total emissions limits established in the December 2002 SIP revision, but represented on an annual basis instead of a 24-hour rolling average. Based on information provided, the commission determined that enforceable limits on HRVOC emissions within the seven surrounding counties may be sufficient without the need for an additional cap and trade system for those counties. Therefore, the commission has provided an exemption from the short-term and annual caps for sites in those seven counties. The executive director will continue to evaluate the necessity to require additional short-term and annual limitations on those sites subject to 30 TAC Chapter 115, Subchapter H, Divisions 1 and 2, that are located within the seven-county surrounding area. If the evaluation reveals that the total amount of enforceable HRVOC emissions is at a level that is inconsistent with the attainment demonstration of the NAAQS for the one-hour ozone by the attainment date, the commission may revoke the exemption and require compliance with this division by January 1, 2007, or within 180 days after notification, whichever is later.

The annual cap emissions will be distributed and enforced through an HRVOC emissions cap and trade program through Chapter 101, Subchapter H, Division 6. This program establishes a mandatory annual HRVOC emission cap on all sites located in the HGB area that have the potential to emit more than ten tons per year (tpy) of HRVOC and that are subject to the HRVOC control requirements of Chapter 115, Subchapter H, Division 1, Vent Gas Control, or Division 2, Cooling Tower Heat Exchange Systems. The cap shall be enforced through the allocation, trading, and banking of allowances. An allowance is the equivalent of one ton of HRVOC emissions. This HRVOC cap is established at a level demonstrated as necessary to allow the HGB area to attain the one-hour ozone standard along with a 5% reduction to safeguard against potential emissions variations. The cap will initially be implemented on January 1, 2007. These adopted sections also require all sites with new or modified HRVOC sources in the HGB area to obtain unused allowances from other sites already participating under the cap for any increased HRVOC emissions. For sites that have the potential to emit ten tpy or less of HRVOC from sources subject to the HRVOC control requirements of Chapter 115, Subchapter H, Divisions 1 or 2, the total, aggregate HRVOC emissions from those sources will be limited to ten tpy. Sites exempt from the HRVOC emissions cap and trade program will be extended an opportunity to opt-in, receive an HRVOC allocation, and thereby not be restricted to the ten tpy limit.

The HGB SIP no longer relies primarily on NO<sub>x</sub>-based strategies. A combination of point source HRVOC controls and NO<sub>x</sub> reductions is the most effective means of reducing ozone in the HGB area. Under this revision, there is no longer a NO<sub>x</sub> shortfall in the HGB SIP. The commission also evaluated a number of the existing control strategies that were put in place in the December 2000 revision. The photochemical modeling shows that

some of these strategies are no longer necessary to attain the one-hour ozone standard. This SIP revision includes the repeal of the commercial lawn and garden equipment restrictions, the repeal of the heavy-duty vehicle idling restrictions, and the removal of the motor vehicle inspection and maintenance program requirements from Chambers, Liberty, and Waller Counties. In addition, this SIP revision includes revisions to the environmental speed limit strategy. In September 2002, the commission revised the existing speed limit strategy to suspend the 55 mile per hour (mph) speed limit until May 1, 2005, and, where posted speeds were 65 mph or higher before May 1, 2002, to increase speed limits to five mph below what was posted. The 78th Legislature, 2003, removed the commission's authority to determine speed limits for environmental purposes; therefore, this SIP removes the reinstatement of the 55 mph speed limit on May 1, 2005, and maintains the currently posted speed limits at five mph below the posted limit before May 1, 2002. Also, as part of this SIP revision, the commission is adopting new statewide portable fuel container rules. Historically, the commission has expressed a preference to implement technology-based strategies over behavior-altering strategies, and these adopted changes embody that philosophy.

Through this revision, the commission is fulfilling its outstanding one-hour ozone SIP obligations and beginning to plan for the upcoming eight-hour ozone standard. This SIP demonstrates attainment of the one-hour ozone standard in the HGB area in 2007 and provides a preliminary analysis of the HGB area in terms of the eight-hour ozone standard in 2007 and 2010. EPA's proposed eight-hour implementation rules provide flexibility to the states in transitioning from the one-hour to the eight-hour ozone standard, and the commission believes the steps taken in this proposal and the technical work performed to date will be invaluable through the transition period. Upon EPA's finalization of the eight-hour implementation and the transportation conformity rules, the commission expects to begin developing eight-hour ozone SIPs.

The commission continues to analyze the rules for implementation of the eight-hour ozone standard adopted by EPA on April 15, 2004. This additional analysis of the impact of the adopted rules on attainment of the eight-hour standard may indicate a need for new or more stringent control measures and could result in the modification of the HRVOC emissions caps established under these adopted rules.

## SECTION BY SECTION DISCUSSION

### *Section 101.390, Definitions*

The adopted new §101.390 contains the definitions to be used with the new HRVOC emissions cap and trade program. The definition of "Allowance" is the authorization to emit one ton of HRVOC, expressed in tenths of a ton, during a control period. The definition of "Authorized account representative" is the responsible person who is authorized in writing, to transfer and otherwise manage allowances. "Banked allowance" is defined as an allowance that is not used to reconcile emissions in the designated year of allocation, but is carried forward for up to one year and noted in the compliance or broker account as banked. The definition of "Broker" is a person that is not required to participate in the requirements of this division that opens an account under this division for the purpose of banking and trading allowances. "Broker account" is defined as the account where allowances held by a broker are recorded. Allowances held in a broker account may not be used to satisfy compliance requirements for this division. "Compliance account" is defined as the

account where allowances held by a site are recorded for the purposes of meeting the requirements of this division. Sources not under common ownership or control may have separate compliance accounts. "Level of activity" is defined as the amount of HRVOCs in pounds produced as an intermediate, by-product, or final product or used by a process unit during a given period of time, but excluding any recycled HRVOCs internal to the process unit. This definition is intended to allow each process unit at a site to choose either the HRVOC production or HRVOC use, but not both, as the representative level of activity. Based on revisions to the proposed allocation methodology, petroleum refineries will not be allocated an HRVOC allowance independent of other industry sectors. This revision removes the necessity for a specific definition of "Petroleum refinery," therefore, the proposed definition was deleted. Based on comment, the proposed definition of "Process unit" was removed from the adopted rule as it is a predefined term in 30 TAC §115.10.

The new division refers to the following predefined definitions: "Cooling tower heat exchange system" as defined in 30 TAC §115.760; "Flare" as defined in 30 TAC §101.1; "Houston/Galveston/Brazoria ozone nonattainment area" as defined in §115.10; "HRVOC" as defined in §115.10; "Site" as defined by 30 TAC §122.10; and "Vent" as defined in §101.1. In response to comment, the commission has added a reference to the definition of "Potential to emit" as defined in 30 TAC §116.12 and "Process unit" as defined in §115.10.

#### *Section 101.391, Applicability*

The adopted new §101.391 states that the requirements of Division 6 apply to each site located in the HGB area that is subject to the HRVOC requirements of Chapter 115, Subchapter H, Division 1 or 2 and the types of facilities covered. Based on comment, the commission has removed the word "all" from the proposed language to indicate that vent gas streams, flares, and cooling tower heat exchange systems that are exempt from the control requirements of Chapter 115, Subchapter H, Division 1 or 2 will not be subject to this division. The adopted new §101.391 also states that any site that elects to opt-in to this division under §101.392(b) shall always be subject to the program.

#### *Section 101.392, Exemptions*

The adopted new §101.392 exempts from this division any site meeting the applicability requirements of §101.391 with the potential to emit ten tpy or less of HRVOC from all covered facilities at the site. For the purpose of determining exemption status, the site's potential to emit HRVOC from all covered facilities is compared to the ten tpy exemption level for each year of operation beginning with calendar year 2000. If at any time the site's potential to emit exceeds the ten tpy exemption level, the site shall be subject to the HRVOC emissions cap and trade program. In response to comment, a reference to the definition of "Potential to emit" found in §116.12 was added to the adopted rule. Once subject to the HRVOC cap and trade program, a site shall always be subject to the program. Sites exempt from this division, based on a potential to emit HRVOCs of ten tpy or less, are extended an opportunity to opt-in to the HRVOC emissions cap and trade program. Notification of a site's election to opt-in to the requirements of this division is required in writing to the executive director no later than April 30, 2005. Sites that do not elect to opt-in to the HRVOC cap and trade program will be limited to a potential to emit of no more than ten tpy of HRVOC. Any site that at a later date triggers HRVOC emissions cap and trade program applicability by increasing its potential to emit HRVOC above ten

tpy will not receive an allocation and will be required to purchase all allowances needed to comply from the open market.

Based on comments and modeling analysis, new §101.392 provides an exemption from this division to those sites located in Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, and Waller Counties. Sites located in those counties, otherwise subject to this division, must enforceably limit HRVOC emissions from covered facilities. Modeling studies have demonstrated that the proposed HRVOC limits on sites located in the seven counties surrounding Harris County are not necessary for the HGB area to attain the one-hour ozone standard. Further, the magnitude of HRVOC emissions from the seven surrounding counties affecting peak ozone concentrations by one part per billion is significantly larger than 1,200 pounds per hour. Affected industries in the seven-county area have indicated to the commission that representations for HRVOC emissions within their respective air permits are well below the values likely to be put in place through the HRVOC annual cap. The commission is exempting sites in the seven surrounding counties based on the presumption that the enforceable limitations from these sites are less than the area cap for the seven surrounding counties. In order to ensure that this presumption is accurate, each site with a potential to emit more than ten tpy of HRVOC must establish enforceable limits on HRVOC emissions from vent gas streams, flares, and cooling tower heat exchangers subject to the control requirements of Chapter 115, Subchapter H at levels represented in the most recent applications to the executive director for authorization under 30 TAC Chapter 116. Establishing enforceable limits on HRVOC emissions on an emission point basis can be accomplished through submittal of a PI-8 Form (Special Certification Form for Exemptions and Standard Permits) or any other form provided by the executive director to certify federally enforceable emission limits. In addition, enforceable limits on HRVOC emissions can be set by altering or amending authorizations under Chapter 116 to have an HRVOC emissions limit expressed in the maximum allowable emission rate table. The executive director will review the total amount of HRVOC emissions established through these enforceable limits for sites in the seven counties surrounding Harris County and present those findings to the commission for its determination on the appropriateness of the cap and trade program for those counties. If the evaluation reveals that the total amount of enforceable HRVOC emissions is at a level that is inconsistent with the attainment demonstration for the NAAQS for one-hour ozone by the attainment date, the commission may revoke the exemption and require compliance with this division by January 1, 2007, or within 180 days after notification, whichever is later.

#### *Section 101.393, General Provisions*

The adopted new §101.393 states that allowances may only be used to meet the requirements of Division 6 and cannot be used to meet or exceed the limitations of any annual emission limitation established under Chapter 116, Subchapter B, any applicable rule or law, or for netting purposes to avoid the applicability of federal and state new source review (NSR) requirements. In response to comments, the new section sets the initial control period as January 1, 2007, through December 31, 2007, with each control period thereafter beginning on January 1 and ending on December 31. The new section requires each site subject to this division to hold a quantity of allowances in its compliance account equal to or greater than its total HRVOC emissions from all covered facilities during the previous control period. The new section states that allowances may be simultaneously used

to satisfy offset requirements for new or modified sources subject to federal nonattainment NSR requirements as provided in Chapter 116, Subchapter B, Division 7, but not for netting requirements. The new section states that all allowances will be allocated, transferred, deducted, or used in tenths of tons and that one compliance account shall be used for each site. The new section states that an allowance does not constitute a security or a property right. The commission will maintain a registry of the allowances in each compliance and broker account. The registry will not contain proprietary information. Requests for information identified as proprietary when submitted to the agency shall be subject to the procedures set out in the Texas Public Information Act.

#### *Section 101.394, Allocation of Allowances*

The adopted new §101.394 describes how allowances will be allocated to each site subject to this division. The executive director will allocate allowances under this division on January 1, 2007. For sites subject to this division that are located in Harris County, allowances will be allocated for emissions of the following HRVOCs: 1,3-butadiene; all isomers of butene (e.g., isobutene (2-methylpropene or isobutylene), alpha-butylene (ethylethylene), and beta-butylene (dimethylethylene, including both cis- and trans-isomers)); ethylene; and propylene. Allowances will be allocated in the aggregate, not specifically identified for each HRVOC species. Sites within Harris County not eligible to receive an allocation under §101.394(c) will receive an allocation based on a percentage of the site's baseline level of activity relative to the total baseline level of activity for all sites within Harris County. This percentage will then be applied to the tons of HRVOC available for distribution to those sites within Harris County. The amount of HRVOC allowances available for distribution is calculated from the tons of HRVOC emissions determined to be sustainable in Harris County through the attainment demonstration modeling minus 5% as a compliance buffer and the 10% set aside for sites that do not produce or use HRVOC. If the commission implements the cap and trade program for sites subject to this division that are located in Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, and Waller Counties, allowances will be allocated for emissions of the following HRVOCs: ethylene and propylene. Allowances will be allocated in the aggregate, not specifically identified for each HRVOC species. Sites within Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, and Waller Counties that are not eligible to receive an allocation under §101.394(c) will receive an allocation based on a percentage of the site's baseline level of activity relative to the total baseline level of activity for all sites within those counties. This percentage will then be applied to the tons of HRVOC available for distribution to those sites within Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, and Waller Counties. The amount of HRVOC allowances available for distribution is calculated in the same manner as described for Harris County. In response to comments, the commission has revised the level of activity baseline period from the proposal. The level of activity baseline for each process unit at a site will be calculated as the level of activity for any 12 consecutive months chosen from the period of calendar years 2000 - 2004. For a site, the total level of activity shall be determined by summing the levels of activity for all process units located at the site that produce one or more HRVOCs as an intermediate, by-product, or final product or that use one or more HRVOCs as a raw material or intermediate to produce a product. In determining the level of activity for each site, the commission does not intend for HRVOC production or

use for a single process unit to be counted more than once. For example, process units that use one or more HRVOCs as a feed, but also produce one or more different HRVOCs as a product or by-product, should count either HRVOC use or production, but not both, in determining level of activity. Each process unit may choose a 12 consecutive month baseline level of activity that best represents its operational characteristics. In defining process units at a site, a single process unit should consist of all process equipment and operations necessary to achieve the overall objective of the process. For example, a two million pound per year ethylene plant consisting of pyrolysis, compression, refrigeration, and separation would be defined as one process unit with a level of activity of two million pounds of HRVOC. New sites or sites that become subject to this division at a later date by increasing HRVOC emissions above the exemption level will be required to obtain allowances from other sites already participating in the cap and trade program.

Sites subject to this division that do not include process units that produce or use an HRVOC will receive an allocation based on HRVOC throughput or storage capacity for any 12 consecutive months chosen from the period of calendar years 2000 - 2004. Examples of facilities that do not produce or use HRVOCs include storage facilities, loading/unloading facilities, or pipelines. Up to 10% of the total HRVOC emissions for Harris County will be equitably allocated to those sites within Harris County subject to this division but that do not include process units that produce or use an HRVOC. Likewise, up to 10% of the total HRVOC emissions for Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, and Waller Counties will be equitably allocated to sites in those counties meeting the same qualifications. In order to be allocated allowances from this set-aside, owners or operators of sites subject to this division that do not include process units that produce or use an HRVOC are required to apply to the executive director no later than January 30, 2005. Allowances up to the full 10% not allocated to sites meeting the previously mentioned criteria will be distributed proportionately to those sites producing or using an HRVOC.

In response to comments, the commission has deleted proposed rule language under §101.394(d) to allocate allowances to those process units that are a part of a petroleum refinery independent of other industry sectors. The commission contends that equal treatment of all process units that produce and use HRVOC will result in the most equitable basis for establishing HRVOC allocations.

In response to comments, the commission has added new language under §101.394(d) to provide a minimum allocation of 5.0 tons for those sites subject to this division or that elect to opt-in to the requirements of this division. The addition of a minimum allocation level will provide small sites a level of assurance regarding the allocation they will receive and an incentive for exempt sites to opt-in to the cap and trade program. The total amount of allowances allocated based on the minimum 5.0 ton provision and the corresponding level of activity from those sites receiving a minimum of 5.0 tons shall be subtracted from the allocation equation prior to calculating the allocations for the remaining sites.

The section states that if a site emits more HRVOC than what was held in the compliance account on March 1 following a control period, then the allocation for the next control period will be reduced by an amount equal to the emissions exceeding the compliance account plus an additional 10%. For example, an

emissions exceedance of ten tons would result in a penalty reduction of 11 tons for the next control period. If a compliance account does not have sufficient allowances to accommodate the penalty reduction, it is the responsibility of the owner or operator to purchase or transfer additional allowances within 30 days of issuance of a notice of deficiency from the executive director. Based on comments received, the initial control period has been revised, therefore, allowances will be deposited initially by January 1, 2007, and subsequently by January 1 of each control period. The annual allocation of allowances may be adjusted to reflect any new or existing SIP requirements. Allowances may be added or subtracted from a site's compliance account in accordance with the annual reporting requirements in §101.400. The commission has deleted proposed §101.394(i) that allowed sites to request consideration for extenuating circumstances. To allow sites to best represent typical operation and avoid time periods of low HRVOC production and use activity that may constitute an extenuating circumstance, the commission chose to revise the level of activity baseline requirements. Due to the initial control period beginning January 1, 2007, the commission has deleted proposed subsection (j) that required a 25% reduction in the allocation for the first control period. Sites will receive 100% of their initial allocation for the first control period.

#### *Section 101.396, Allowance Deductions*

The adopted new §101.396 describes the deduction of allowances from compliance accounts. On March 31 of the year following each control period, allowances will be deducted from the site's compliance account equivalent to the total HRVOC emissions from all covered facilities at the site. The amount of HRVOC emissions is required to be based on the monitoring and testing protocols established in 30 TAC §115.725 and §115.764, as appropriate for each process unit at the site. The section states that annual HRVOC emissions from covered facilities will be calculated for each hour of the year and summed to determine the total annual HRVOC emissions. Emissions events subject to the requirements of 30 TAC §101.201 and emissions from scheduled maintenance, startup, or shutdown activities subject to the requirements of 30 TAC §101.211 will be required to be included in the total annual HRVOC emissions for each control period. However, the hourly emissions for emission events or emissions from scheduled maintenance, startup, or shutdown activities to be included in the summation cannot exceed the short-term limit of 30 TAC §115.722(c) and §115.761(c). This section also includes a provision for missing data. Should the monitoring and testing data required by this section be nonexistent or unavailable, a site may determine its HRVOC emissions using the following methods and in the following order: continuous monitoring data; periodic monitoring data; testing data; data from manufacturers; and engineering calculations. Sources using continuous monitors to measure emissions may substitute the last valid data point from the monitor for the missing data. A justification is required for sites using one of these alternate methods for determining HRVOC emissions due to missing monitoring and testing data. The section states that the executive director shall deduct allowances for compliance with a control period beginning with the most recently allocated allowances prior to deducting banked allowances.

#### *Section 101.399, Allowance Banking and Trading*

The adopted new §101.399 describes how allowances may be traded and banked. Allowances may generally be banked for future use or traded during the control period for which they are

allocated or the following control period. Any allowance not used for compliance may be banked or traded for use in the following control period. The section states that allowances that have not expired or been used are available for trade at any time after they have been allocated. Trade requests involving allowances allocated for the current control period or excess allowances from the previous control period shall be made through the submittal of a completed Form ECT-2, Application for Transfer of Allowances. Persons receiving an annual allocation of HRVOC allowances may permanently transfer ownership of the current and future allowances to be allocated to that site through the submittal of a completed Form ECT-4, Application for Permanent Transfer of Allowance Ownership. Trades involving the transfer of allowances scheduled to be allocated for a future control period may be conducted through the submittal of a completed Form ECT-5, Application for Transfer of Individual Future Year Allowances. With the exception of transfers between sites under common ownership or control, the account representative shall report the price paid per allowance for all transfer transactions. All trades will be completed through the executive director and are considered final when the executive director issues a letter to buyer and seller reflecting the transaction. Allowances initially allocated to sites located in Harris County are restricted from use at sites located in Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, and Waller Counties. Allowances initially allocated to sites located in Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, and Waller Counties are restricted from use in Harris County. Only authorized account representatives are permitted to trade allowances. The section states that allowances subject to an approved transaction will be deposited into the purchaser's broker or compliance account within 30 days of receipt of a completed transfer application.

In response to comments, the commission has added new §101.399(h) to provide sites subject to this division the opportunity to convert VOC emission reduction credits (ERCs) that have been certified in accordance with the requirements of Division 1, Emission Credit Banking and Trading, of this subchapter to a yearly allocation of HRVOC allowances equivalent to no more than 5% of the site's initial HRVOC allocation. VOC ERCs qualifying for conversion must be generated from a reduction at a site located in the HGB area. The qualifying ERC must be generated from a reduction strategy implemented after December 31, 2004, to reduce a VOC specie other than those defined as an HRVOC in §115.10. VOC reductions from the installation of controls required as best available control technology under an NSR permit shall not qualify for conversion to HRVOC allowances. In addition to the emission credit requirements of Division 1 of this subchapter, a qualifying ERC must be quantifiable, real, surplus, enforceable, and permanent as required under 30 TAC §101.302 at the time the ERC is converted. The baseline emissions to which the reduction is compared shall consist of the average actual emissions for any two consecutive calendar years preceding the emission reduction strategy and that include or follow the most recent year of emission inventory used in the SIP. The emissions inventory year used in the current SIP for the HGB area is from calendar year 2000. Therefore, based on the current SIP, a VOC reduction that qualifies for conversion under subsection (h) could choose a baseline period consisting of any two consecutive calendar years from 2000 to the date the emission reduction strategy was implemented. In addition, the ERC must not have expired and the owner of the ERC must have prior approval from the executive director to convert the credit to an HRVOC allocation. The quantification methodologies used

for the certification of VOC ERCs that qualify for conversion to HRVOC allowances shall be performed using the monitoring and testing methods required under §115.725 or §115.764 and the owner/operator of the source making the reduction shall comply with the recordkeeping and reporting requirements under 30 TAC §115.726 and §115.766.

The conversion of qualifying VOC ERCs shall be calculated based on a ratio of reactivity between the maximum incremental reactivity (MIR) for the speciated VOCs reduced and the MIR for HRVOC. The MIR values to be used in this conversion calculation shall be those maintained within the table titled *MIR Values for Compounds* under California Code of Regulations, Title 17, Chapter 1, §94700, as amended. From this list, the MIR for propylene of 11.57 grams of ozone per gram of VOC was chosen as the standard MIR for HRVOCs based on the prevalence of propylene in the HGB area airshed. In calculating the tons of HRVOC allowances converted from a reduction in other VOCs, the reactivity for each speciated VOC is multiplied by the actual emissions reduced, in tpy, of each speciated VOC and then divided by 11.57. If the VOC specie reduced is not a listed compound under California Code of Regulations, Title 17, Chapter 1, §94700, the generator may provide the MIR factor along with the appropriate scientific reference or use the MIR of butane as a surrogate.

For sites that are eligible to receive an HRVOC allocation under §101.394, the total amount of HRVOC allowances the site may receive from converting VOC ERCs shall not exceed a quantity of allowances equivalent to 5% of the site's initial allocation. For example, if a site was initially allocated 100 tons of HRVOC allowances, that site would be eligible to receive no more than five tons of additional HRVOC allowances from converting qualified VOC ERCs. In addition to the 5% limit, each site subject to this division that has submitted an application for a permit under Chapter 116 to construct a new covered facility or modify an existing covered facility may generate an HRVOC allocation equivalent to the associated HRVOC emissions increases by converting qualified VOC ERCs. Only those sites that have emissions increases from new or modified covered facilities not in operation prior to January 2, 2004, and that were authorized under a Chapter 116 permit that has been deemed administratively complete by the executive director within one year of the effective date of this rule shall be eligible to receive an HRVOC allocation from the conversion of VOC ERCs. The commission trusts that the conversion of reductions from other VOCs to HRVOC allocations will allow those sites with new or modified covered facilities the opportunity to receive allowances for those HRVOC emission increases while providing additional reductions to the HGB area benefitting the attainment of the one-hour ozone standard.

#### *Section 101.400, Reporting*

The adopted new §101.400 states that sites shall submit a completed Form ECT-1H, Highly-Reactive Volatile Organic Compound Emissions Cap and Trade Annual Compliance Report, to the executive director no later than March 31 following each control period detailing the amount of actual HRVOC emissions for the preceding control period. The annual compliance report must include the total amount of HRVOC emissions from each covered facility at the site, the methods used in determining the HRVOC emissions, and a summary of all final trades. The adopted section also provides the executive director authority to suspend trades involving the transfer of allowances for future control periods from any site that has not submitted an ECT-1H form. For example, if after March 31, 2007, site A has

not submitted an ECT-1H form for the 2006 control period but has submitted an application for transfer of 2003 allowances to site B, the trade may be withheld pending the submittal of site A's Highly-Reactive Volatile Organic Compounds Emissions Cap and Trade Annual Compliance Report and verification of compliance for 2006.

#### *Section 101.401, Level of Activity Certification*

The adopted new §101.401 states that all sites subject to this division shall submit a completed Form ECT-3H, Highly-Reactive Volatile Organic Compound Emissions Cap and Trade Level of Activity Certification Form, certifying their baseline level of activity no later than April 30, 2005. The ECT-3H form shall include the level of activity for the 12 consecutive month period chosen from calendar years 2000 - 2004 for all covered facilities at the site. The ECT-3H form must include information and documentation in support of the adopted level of activity baseline such as production, purchase, or usage records; process flow diagrams; process descriptions; and material balance calculations. This information will be used to calculate each site's allocation. In response to comments the adopted section allows an owner or operator to mark any portion of the ECT-3H form and the supporting documentation as confidential under Texas Health and Safety Code, §382.041.

For the commission to retain the exemption in §101.392, affected industries in the seven counties surrounding Harris County must establish enforceable limits on hourly and annual emissions of HRVOC from vent gas streams, flares, and cooling tower heat exchangers subject to the control requirements of Chapter 115, Subchapter H at levels represented in the most recent authorizations under Chapter 116. Information pertaining to the levels of HRVOC emissions represented in authorizations for sites within Harris County will be necessary to more accurately evaluate the HGB area for the eight-hour ozone attainment demonstration. Therefore, new subsection (e) was added to the rule requiring all sites in the HGB area with a potential to emit more than ten tpy of HRVOC to submit, in addition to Form ECT-3H, enforceable documentation of the maximum allowable emission rates for HRVOC emissions from covered facilities at that site.

#### *Section 101.403, Program Audits and Reports*

The adopted new §101.403 requires the executive director to perform an audit of the HRVOC emissions cap and trade program within three years of the effective date of this division and every three years thereafter. The audit will evaluate the impact of the program on the SIP, availability and cost of allowances, compliance by participants, necessity for additional trading restrictions, and any other elements chosen by the executive director. Additionally, no later than June 30 following each control period, the executive director shall prepare and make available a report for the previous control period. This report will detail the number of allowances allocated to each compliance account, total number of allowances allocated under this division, total amount of HRVOC allowances deducted from each compliance account based on actual HRVOC emissions, and a summary of all trades for the control period.

#### FINAL REGULATORY IMPACT ANALYSIS DETERMINATION

The commission reviewed the rulemaking action in light of the regulatory analysis requirements of Texas Government Code, §2001.0225, and determined that the rulemaking action meets the definition of a "major environmental rule" as defined in that

statute. A "major environmental rule" is a rule the specific intent of which is to protect the environment or reduce risks to human health from environmental exposure and that may adversely affect in a material way the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state.

The adopted rulemaking to Chapter 101 and revisions to the SIP affects owners and operators of sources emitting HRVOC subject to Chapter 115, Subchapter H, Divisions 1 and 2. In this rulemaking, the commission is establishing a cap and trade program to implement the annual HRVOC cap under Chapter 115, Subchapter H being adopted in concurrent rulemaking. All sites subject to the cap and trade program are required to hold a quantity of allowances in its compliance account by March 1 equal to or greater than the total HRVOC emissions emitted during the previous control period. The HRVOC cap will reduce the overall reactivity in the airshed by removing compounds that are most prevalent and most likely to react rapidly enough to cause one-hour ozone exceedances. The rules are intended to protect the environment and reduce risks to human health and safety from environmental exposure and may have adverse effects on owners and operators of certain sources. Many of these sources are owned or operated, petrochemical plants, refineries, and other industrial, commercial, or institutional groups, and each group could be considered a sector of the economy. This determination is based on the analysis provided in the proposed preamble, including the discussion in the PUBLIC BENEFITS AND COSTS section of the proposal.

This rulemaking does not meet any of the four applicability criteria of a "major environmental rule" as defined in the Texas Government Code. Texas Government Code, §2001.0225 applies only to a major environmental rule the result of which is to: 1) exceed a standard set by federal law, unless the rule is specifically required by state law; 2) exceed an express requirement of state law, unless the rule is specifically required by federal law; 3) exceed a requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program; or 4) adopt a rule solely under the general powers of the agency instead of under a specific state law.

The rulemaking implements requirements of 42 USC, §7410, which requires states to adopt a SIP that provides for "implementation, maintenance, and enforcement" of the NAAQS in each air quality control region of the state. While 42 USC, §7410, does not require specific programs, methods, or reductions to meet the standard, SIPs must include "enforceable emission limitations and other control measures, means or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance as may be necessary or appropriate to meet the applicable requirements of this chapter," (meaning 42 USC, Chapter 85, Air Pollution Prevention and Control). It is true that the FCAA does require some specific measures for SIP purposes, such as the inspection and maintenance program, but those programs are the exception, not the rule, in the SIP structure of 42 USC, §7410. The provisions of the FCAA recognize that states are in the best position to determine what programs and controls are necessary or appropriate in order to meet the NAAQS. This flexibility allows states, affected industry, and the public, to collaborate on the best methods to attain the NAAQS for the specific regions in the state. Even though the FCAA allows states to develop their own programs, this flexibility does not

relieve a state from developing a program that meets the requirements of 42 USC, §7410. Thus, while specific measures are not generally required, the emission reductions are required. States are not free to ignore the requirements of 42 USC, §7410, and must develop programs to assure that the nonattainment areas of the state will be brought into attainment on schedule.

The requirement to provide a fiscal analysis of adopted regulations in the Texas Government Code was amended by Senate Bill (SB) 633 during the 75th Legislature, 1997. The intent of SB 633 was to require agencies to conduct a regulatory impact analysis of extraordinary rules. These are identified in the statutory language as major environmental rules that will have a material adverse impact and will exceed a requirement of state law, federal law, or a delegated federal program, or are adopted solely under the general powers of the agency. With the understanding that this requirement would seldom apply, the commission provided a cost estimate for SB 633 that concluded "based on an assessment of rules adopted by the agency in the past, it is not anticipated that the bill will have significant fiscal implications for the agency due to its limited application." The commission also noted that the number of rules that would require assessment under the provisions of the bill was not large. This conclusion was based, in part, on the criteria set forth in the bill that exempted proposed rules from the full analysis unless the rule was a major environmental rule that exceeds a federal law. As discussed earlier in this preamble, 42 USC, §7410 does not require specific programs, methods, or reductions in order to meet the NAAQS; thus, states must develop programs for each nonattainment area to ensure that area will meet the attainment deadlines. Because of the ongoing need to address nonattainment issues, the commission routinely proposes and adopts SIP rules. The legislature is presumed to understand this federal scheme. If each rule proposed for inclusion in the SIP was considered to be a major environmental rule that exceeds federal law, then every SIP rule would require the full regulatory impact analysis contemplated by SB 633. This conclusion is inconsistent with the conclusions reached by the commission in its cost estimate and by the Legislative Budget Board in its fiscal notes. Because the legislature is presumed to understand the fiscal impacts of the bills it passes, and that presumption is based on information provided by state agencies and the Legislative Budget Board, the commission contends that the intent of SB 633 was only to require the full regulatory impact analysis for rules that are extraordinary in nature. While the SIP rules will have a broad impact, that impact is no greater than is necessary or appropriate to meet the requirements of 42 USC, §7410. For these reasons, rules adopted for inclusion in the SIP fall under the exception in Texas Government Code, §2001.0225(a), because they are specifically required by federal law.

In addition, 42 USC, §7502(a)(2), requires attainment as expeditiously as practicable, and 42 USC, §7511a(d), requires states to submit ozone attainment demonstration SIPs for severe one-hour ozone nonattainment areas such as the HGB area. The adopted rules, which will reduce ambient HRVOC and ozone in the HGB area, will be submitted to the EPA as one of several measures in the federally approved SIP. As discussed earlier in this preamble, the banking and trading program in the adopted rules are necessary to address some of the elevated ozone levels observed in the HGB area; this program will result in reductions in ozone formation in the HGB area and help bring the HGB area into compliance with the air quality standards established under federal law as NAAQS for ozone. Through its

2004 revision to the HGB SIP, the commission is fulfilling its outstanding one-hour ozone SIP obligations and beginning to plan for the upcoming eight-hour standard. This rulemaking is part of the HGB SIP revision which demonstrates attainment of the one-hour ozone standard in the HGB area in 2007, and provides preliminary analysis of the HGB area in terms of the eight-hour standard in 2007 and 2010.

The commission has consistently applied this construction to its rules since this statute was enacted in 1997. Since that time, the legislature has revised the Texas Government Code but left this provision substantially unamended. The commission presumes that "when an agency interpretation is in effect at the time the legislature amends the laws without making substantial change in the statute, the legislature is deemed to have accepted the agency's interpretation." *Central Power & Light Co. v. Sharp*, 919 S.W.2d 485, 489 (Tex. App. Austin 1995), writ denied with *per curiam opinion respecting another issue*, 960 S.W.2d 617 (Tex. 1997); *Bullock v. Marathon Oil Co.*, 798 S.W.2d 353, 357 (Tex. App. Austin 1990), no writ, Cf. *Humble Oil & Refining Co. v. Calvert*, 414 S.W.2d 172 (Tex. 1967); *Sharp v. House of Lloyd, Inc.*, 815 S.W.2d 245 (Tex. 1991); *Southwestern Life Ins. Co. v. Montemayor*, 24 S.W.3d 581 (Tex. App. Austin 2000), *pet. denied*; and *Coastal Indust. Water Auth. v. Trinity Portland Cement Div.*, 563 S.W.2d 916 (Tex. 1978).

As discussed, this rulemaking action implements requirements of 42 USC, §7410. There is no contract or delegation agreement that covers the topic that is the subject of this action. Therefore, the rulemaking does not exceed a standard set by federal law, exceed an express requirement of state law, exceed a requirement of a delegation agreement, nor is it adopted solely under the general powers of the agency. Finally, this rulemaking action was not developed solely under the general powers of the agency, but is authorized by specific sections of Texas Health and Safety Code, Chapter 382 (also known as the Texas Clean Air Act), and Texas Water Code that are cited in the STATUTORY AUTHORITY section of this preamble, including Texas Health and Safety Code, §§382.011, 382.012, 382.014, 382.016, 382.017, 382.021, and 382.034. Therefore, this rulemaking action is not subject to the regulatory analysis provisions of Texas Government Code, §2001.0225(b), because the rulemaking does not meet any of the four applicability requirements.

#### TAKINGS IMPACT ASSESSMENT

The commission completed a takings impact assessment for this rulemaking action under Texas Government Code, §2007.043. The specific purpose of this rulemaking is to reduce and permanently cap HRVOC emissions to a level that would allow the HGB area to attain the NAAQS for ozone. Promulgation and enforcement of the rules will not burden private real property. The adopted rules do not affect private property in a manner that restricts or limits an owner's right to the property that would otherwise exist in the absence of a governmental action. Additionally, the credits and allowances created under these rules are not property rights. Consequently, this rulemaking action does not meet the definition of a takings under Texas Government Code, §2007.002(5).

Texas Government Code, §2007.003(b)(4), provides that Chapter 2007 does not apply to this rulemaking action, because it is reasonably taken to fulfill an obligation mandated by federal law. The emission limitations and control requirements within this rulemaking action were developed to meet the ozone NAAQS set by the EPA under 42 USC, §7409. States are primarily responsible for ensuring attainment and maintenance of NAAQS

once the EPA has established them. Under 42 USC, §7410, and related provisions, states must submit, for approval by the EPA, SIPs that provide for the attainment and maintenance of NAAQS through control programs directed to sources of the pollutants involved. Therefore, one purpose of this rulemaking action is to meet the air quality standards established under federal law as NAAQS. Attainment of the one-hour ozone standard will require reductions of HRVOC emissions, as well as substantial reductions in NO<sub>x</sub> emissions. Any VOC reductions resulting from the current rulemaking are no greater than what scientific research indicates is necessary to achieve the desired ozone levels. However, this rulemaking is only one step among many necessary for attaining the one-hour ozone standard.

In addition, Texas Government Code, §2007.003(b)(13), states that Chapter 2007 does not apply to an action that: 1) is taken in response to a real and substantial threat to public health and safety; 2) is designed to significantly advance the health and safety purpose; and 3) does not impose a greater burden than is necessary to achieve the health and safety purpose. Although the adopted rules do not directly prevent a nuisance or prevent an immediate threat to life or property, they do prevent a real and substantial threat to public health and safety. This action is taken in response to the HGB area exceeding the federal ozone NAAQS. This exceedance adversely affects public health, primarily through irritation of the lungs. The action significantly advances the health and safety purpose by reducing ozone levels in the HGB area. Consequently, the rules meet the exception in Texas Government Code, §2007.003(b)(13). This rulemaking action therefore meets the requirements of Texas Government Code, §2007.003(b)(4) and (13). For these reasons, the adopted rules do not constitute a takings under Texas Government Code, Chapter 2007.

#### CONSISTENCY WITH THE COASTAL MANAGEMENT PROGRAM

The commission determined that this rulemaking action relates to an action or actions subject to the Texas Coastal Management Program (CMP) in accordance with the Coastal Coordination Act of 1991, as amended (Texas Natural Resources Code, §§33.201 *et seq.*), and the commission rules in 30 TAC Chapter 281, Subchapter B, concerning Consistency with the CMP. As required by 30 TAC §281.45(a)(3) and 31 TAC §505.11(b)(2), relating to Actions and Rules Subject to the Coastal Management Program, commission rules governing air pollutant emissions must be consistent with the applicable goals and policies of the CMP. The commission reviewed this action for consistency with the CMP goals and policies in accordance with the rules of the Coastal Coordination Council, and determined that the action is consistent with the applicable CMP goals and policies. The CMP goal applicable to this rulemaking action is the goal to protect, preserve, and enhance the diversity, quality, quantity, functions, and values of coastal natural resource areas (31 TAC §501.12(l)). No new sources of air contaminants will be authorized and the adopted rules will maintain the same level of, or reduce the level of emissions as the existing rules. The CMP policy applicable to this rulemaking action is the policy that commission rules comply with federal regulations in 40 Code of Federal Regulations, to protect and enhance air quality in the coastal areas (31 TAC §501.14(q)). This rulemaking action complies with 40 Code of Federal Regulations Part 51, Requirements for Preparation, Adoption, and Submittal of Implementation Plans. Therefore, in accordance with 31 TAC §505.22(e), the commission affirms that this rulemaking action is consistent with CMP goals and policies.

## EFFECT ON SITES SUBJECT TO THE FEDERAL OPERATING PERMITS PROGRAM

Because Chapter 101 contains applicable requirements under 30 TAC Chapter 122, Federal Operating Permits, owners or operators subject to the Federal Operating Permit Program must, consistent with the revision process in Chapter 122, revise their operating permits to include the revised Chapter 101 requirements for each emission unit at their sites affected by the revisions to Chapter 101.

## PUBLIC COMMENT

The commission conducted public hearings on the proposed rules on August 2, 2004, in Houston; August 3, 2004, in Beaumont; and August 5, 2004, in Austin. During the public comment period, which closed on August 9, 2004, the commission received comments from ATOFINA Chemicals, Inc. and American Acryl, L.P. (ATOFINA-American); ATOFINA Petrochemicals, Inc. (ATOFINA-Petrochemicals); Bracewell and Patterson, L.L.P., on behalf of Basell USA, Inc. (Basell); BASF Corporation (BASF); Baker Botts, L.L.P., on behalf of the BCCA-AG; Chevron Phillips Chemical Company (Chevron-Phillips); Dow Chemical Company (Dow); Environmental Defense; EPA; Electric Reliability Council of Texas, Inc. (ERCOT); Galveston-Houston Association for Smog Prevention (GHASP); Harris County Public Health and Environmental Services (HCPHES); the Honorable Bill White, Mayor, City of Houston and the Honorable Robert Eckels, County Judge, Harris County (Houston/Harris County); Baker Botts, L.L.P., on behalf of the Mid-course Coalition (MCC); Sierra Club--Houston Regional Group (Sierra Club); SUNOCO Chemicals (SUNOCO); Texas Chemical Council (TCC); Valero Energy Corporation (Valero); and four individuals.

## RESPONSE TO COMMENTS

TCC requested that the commission clarify §101.391, Applicability, to indicate that the HRVOC rule applies to HRVOC process units, petroleum refinery process units, and sites that transport or store HRVOCs. TCC also suggested that the commission remove the word "all" from the phrase "Covered facilities include all vent gas streams, flares, or cooling tower heat exchange systems that emit highly-reactive volatile organic compounds" to avoid confusion that exempt streams are included in HRVOC provisions.

The commission has revised the rule, based on this comment, to remove the word "all" from the rule language under §101.391. Should a vent gas stream, flare, or cooling tower at a site be exempt from the control requirements of Chapter 115, Subchapter H, Division 1 or 2 by meeting an exemption under §115.727 or §115.767, that vent gas stream, flare, or cooling tower would not be subject to the HRVOC emissions cap and trade program. Exempted process units that are not subject to the HRVOC emissions cap and trade program should not be counted in establishing the baseline level of activity for allocation of HRVOC allowances and would not be required to count emissions toward compliance with the annual cap.

BCCA-AG, MCC, and Valero commented that the vent gas and cooling tower heat exchange system rules apply to certain accounts in the HGB area airshed. The proposed HRVOC cap and trade program applies to sites and the terms "account" and "site" are similar but not identical. MCC requested that the commission substitute the term "site" for "account" in the vent gas and cooling tower heat exchange system rules. MCC also stated that the term "account" is used in the proposed HRVOC emissions

cap and trade program rules when referring to compliance and broker accounts, adding to the confusion. TCC also stated that the rule is confusing because "site" and "account" are used interchangeably.

The rules have not been revised based on this comment. The adopted rule applies to a "Site" as defined in §122.10. Based on comments, Chapter 115, Subchapter H, Divisions 1 and 2 have been revised to apply to a "Site" as defined in §122.10. The term "account" is only used in the adopted rule when referring to a compliance account or broker account where allowances are recorded.

The proposed HRVOC emissions cap and trade program rules exempt sites that have the potential to emit less than ten tpy. BCCA-AG, MCC, and Valero recommended that the commission clarify the applicability of the HRVOC emissions cap and trade program rules to sites in the HGB area subject to the vent gas or cooling tower heat exchange system rules by including in §101.390 the definition of "Potential to emit" as found in §116.12(15). The definition should not include nonroutine emissions that cannot be planned or predicted.

The commission has revised the rule, based on this comment, to reference the definition of "Potential to emit" as defined in §116.12.

Chevron-Phillips and Dow commented that the studies indicate that a cap and trade program in the seven counties surrounding Harris County will have little effect on the entire HGB area's ability to meet the one-hour or eight-hour ozone standards. Based on these studies, Chevron-Phillips and Dow contended that the short-term and annual caps in the seven surrounding counties are not warranted. Chevron-Phillips and Dow requested that the commission delay any action on a cap and trade program for the seven counties surrounding Harris County until such time that the science predicts that a cap and trade program would be an effective measure to enable attainment of the ozone standards.

The commission has reviewed the studies referenced by the commenter and has provided an exemption from the requirements of this division for sites located in Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, and Waller Counties. Sites located in those counties, otherwise subject to this division, must explicitly demonstrate that enforceable limits on HRVOC emissions from covered facilities are below a level that is consistent with the attainment demonstration of the NAAQS for one-hour ozone by the attainment date. Affected industries in the seven counties surrounding Harris County have indicated to the commission that representations for HRVOC emissions within their respective air permits are well below the values likely to be put in place through the annual HRVOC cap. For the commission to consider retaining this exemption, each site with a potential to emit more than ten tpy of HRVOC must establish enforceable limits on HRVOC emissions from vent gas streams, flares, and cooling tower heat exchangers subject to the control requirements of Chapter 115, Subchapter H at levels represented in the most recent authorizations under Chapter 116. Establishing enforceable limits on HRVOC emissions on an emission point basis can be accomplished through submittal of a PI-8 Form or any other form provided by the executive director to certify federally enforceable emission limits. In addition, enforceable limits on HRVOC emissions can be established by altering or amending authorizations under Chapter 116 to have an HRVOC emissions limit expressed in the maximum allowable emission rate table.

The necessary enforceable documentation is required to be submitted along with the site's Form ECT-3H no later than April 30, 2005. The executive director will then evaluate the total amount of HRVOC emissions established through these enforceable limits for sites in the seven counties surrounding Harris County to determine the appropriateness of the cap and trade program for those counties. If the evaluation reveals that the total amount of enforceable HRVOC emissions is at a level that is inconsistent with the attainment demonstration of the NAAQS for one-hour ozone by the attainment date, the commission may revoke the exemption and require compliance with this division by January 1, 2007, or within 180 days after notification, whichever is later.

BCCA-AG, Dow, MCC, TCC, and Valero commented that the definition of "Level of activity" in §101.390(7) should be modified to recognize that some process units not only produce but also use HRVOC. The proposed definition would result in an allowance allocation based on just production or use of HRVOC. Dual function process units would be under allocated. Dow also urged that the commission consider large, complex sites that produce, use, and store HRVOC. These sites should receive a portion of the allowances set aside for storage sites. TCC requested the ability to provide input on the requirements of the level of activity form in §101.401(c). TCC requested that the commission provide a correction method for companies that discover incorrect data on production or use of HRVOC.

The definition of "Level of activity" in §101.390 has not been revised based on this comment. A single process unit that both produces and uses HRVOC should count only HRVOC production or use activity, not both, toward a site's total level of activity.

The commission chose to segregate sites that did not operate process units that produce or use HRVOCs to allow those sites to use another basis for determining their HRVOC allocations. Complex sites that may store HRVOCs in addition to producing or using HRVOCs will have a level of activity from the production and/or use of the HRVOCs being stored. Thus these complex sites would have a production and/or use level of activity that corresponds to the storage of HRVOCs.

The commission has not revised the rule to provide a method for correcting incorrect level of activity data. Based on the allocation methodology, any change in level of activity at a site due to the correction of incorrect HRVOC production and use data will have a direct impact on the quantity of allowances available to all other sites in the same area. The commission will evaluate changes to the control strategies for the HGB area needed to meet the eight-hour ozone standard. These changes may include reallocation of allowances, possibly using actual monitored data, which would provide an opportunity to correct errors from previous level of activity certifications.

The commission would welcome input from the regulated industries subject to the HRVOC emissions cap and trade program on what data will be useful and necessary to establish a level of activity baseline for each site. Further, the commission trusts that this cooperative effort will be necessary to quickly and efficiently determine the allowance allocation under the HRVOC emissions cap and trade program.

BCCA-AG, Chevron-Phillips, MCC, TCC, and Valero commented that the proposed rules do not allow any time to plan for the use of HRVOC emissions cap and trade program allowances because the first control period begins the day after the initial allocation. They stated that HRVOC emissions cap and trade program sites

must have 24 months between initial allocation and the first control period for the following reasons.

The HRVOC emissions cap and trade program applies to vents, flares, and cooling towers at numerous sites and under widely varying conditions. Sites require an adequate amount of time to analyze and implement control strategies.

HRVOC emissions in the HGB area may be significantly underestimated and the monitoring and testing methods in §115.764 should be implemented by December 31, 2005, in order to reveal HRVOC emissions that are different than those estimated using earlier techniques. This possibility must be considered in the HRVOC emissions cap and trade program rules and time should be allowed for sites to adjust their compliance plans.

The mass emissions cap and trade program for NO<sub>x</sub> did not require any reductions during its initial control period thus allowing a period for the planned implementation of control strategies. The HRVOC emissions cap and trade program requires immediate reductions during the initial control period. MCC stated that a reasonable period of time between allocation and the first control period would be consistent with the mass emissions cap and trade program.

A delay of the initial control period to April - December 2007 is consistent with EPA requirements as stated in the preamble to the adoption of the eight-hour ozone standard, which requires that controls be implemented by the beginning of the ozone season immediately preceding the area's attainment date.

MCC recommended a workshop or pilot program to disseminate level of activity information to help ease the short-term burden on the commission and regulated industries caused by a 24-month delay between allocation and initial control period.

The commission disagrees with the commenters' interpretation of the rules. The adopted rules provide for allowances to be deposited into compliance accounts on March 31, 2006, not for the notification of a site's allocation by that date. It is the intent of the commission to process the level of activity certifications and calculate the allocations for all sites subject to the HRVOC emissions cap and trade program in a manner that is considerate of the regulated industry's need to implement control strategies. The commission is willing to commit to notifying each site subject to the HRVOC emissions cap and trade program of its projected allocation no later than September 1, 2005.

Because the HRVOC emissions inventory is based on estimates rather than monitoring data, the commission is not adopting an allocation methodology dependent on HRVOC emissions from each site subject to the HRVOC emissions cap and trade program. Instead, the allocation methodology distributes, based on HRVOC production and use, the tons of HRVOC emissions that the HGB area airshed can sustain while demonstrating attainment of the one-hour ozone standard.

The commission has revised the rule to delay the initial control period to January 1, 2007. This delay should allow regulated industries additional time to determine actual HRVOC emissions based on the monitoring and testing methods required under Chapter 115 and to adjust their compliance strategies should that data differ from earlier emissions estimates.

While the HRVOC emissions cap and trade program rules would provide for the initial allocations to be based on the overall required HRVOC reductions, the HRVOC control requirements were adopted in November 2003. Regulated industries have had since that time to formulate control strategies that at a

minimum would attain compliance with the site-wide caps adopted under the 2003 SIP revision.

The commission agrees that workshops or stakeholder meetings to determine the level of activity information needed would help to quickly and efficiently determine the HRVOC allocations and will work with affected industries in such a manner.

Dow and ATOFINA-American also expressed concern about the uncertainty of final caps coupled with a short time to comply and urged the commission to issue initial allocations as soon as practicable in 2005. Dow recommended that the first control period run from April 1, 2006, to December 31, 2006, with a 100% allowance allocation, or establish the first control period from January to December 2007. BASF and Chevron-Phillips requested that the initial control period be delayed for one year.

The commission intends to process the level of activity certifications and calculate the allocations for all sites subject to the HRVOC emissions cap and trade program in a manner that is considerate of the regulated industry's need to implement control strategies. Staff is willing to commit to notifying each site subject to the HRVOC emissions cap and trade program of its projected allocation no later than September 1, 2005. In addition, the commission has revised the rule to delay the initial control period to January 1, 2007. This delay should allow regulated industries time to adjust their compliance strategies should the monitoring and testing methods required under Chapter 115 reveal greater emissions than earlier emissions estimates.

ATOFINA-American, BCCA-AG, Dow, MCC, TCC, and Valero commented that emissions from emission events and emissions from scheduled maintenance startup and shutdown should not count against a site's allowances. Emission events and many scheduled maintenance startup and shutdown activities are unanticipated and should not be counted with routine and predictable emissions when deducting allowances. Counting unanticipated emissions against a site's allowances could cause a rapid exhaustion of allowances leading to the possibility of a site shutdown and a potential loss of a significant portion of national refining capacity. They stated that the HRVOC emissions cap and trade program is designed to lower levels of HRVOC emissions over the program area and is not suitable for use in addressing short-term emissions in the manner of the uniform hourly limit. TCC suggested revising §101.396(b) to state that emissions "in compliance" with §101.211 be included in the accounting for the annual site-wide HRVOC cap. An individual supported the emission event inclusion.

Under a cap and trade program, all emissions from capped sources should be counted for compliance. However, the commission has recognized the possibility that emission events could cause rapid exhaustion of a site's annual allowances requiring such a site to depend on market availability of allowances for compliance or lead to formal enforcement for violating the annual cap. Based on this recognition, the adopted rules do not require that emissions exceeding the short-term limit be counted against the annual cap, thus providing the opportunity for a site to still meet the annual limit while exceeding the short-term limit. The commission has determined that emissions above the short-term, not-to-exceed limit should not count against the cap because those emissions are arguably not a part of the base of emissions that comprise the long-term part of the two part strategy.

BCCA-AG, MCC, and Valero commented that counting non-routine emissions against a site's allocation results in a double

penalty for the site because the site remains liable for potential enforcement under Chapter 101 emission event rules. HRVOC emissions cap and trade program sites will also be subject to hourly limits, which exposes them to more potential enforcement. BCCA-AG, MCC, and Valero also stated that counting unplanned emissions against allowances causes the HRVOC rules to work at cross purposes because the increased fugitive monitoring required under 30 TAC §§115.780 - 115.789 would require more frequent shutdowns and more venting and flaring associated with those shutdowns.

The rules have not been revised based on this comment. The commission acknowledges that sites with nonroutine emissions are subject to the requirements relating to emission events under Chapter 101 and an hourly limit under Chapter 115. The adopted rules do not require sites to count emissions above the short-term limit in calculating annual emissions for compliance with the cap and trade program. This provision was created to reduce the likelihood of a site with an emission event from also exceeding its annual cap limit.

The proposed language in §§115.780 - 115.789 has been revised to specify that the calculation of emissions from non-repairable leaking components for comparison to emissions that would be generated by a shutdown to repair the leaking components is to be determined on a daily basis. The proposed requirement would have made the comparison on a cumulative basis from the time the component was determined to be leaking until the next scheduled process shutdown. The adopted requirements also specify a *de minimis* level of 500 pounds to trigger a shutdown.

BCCA-AG, Dow, MCC, TCC, and Valero requested that the commission allocate allowances on a process-unit basis and then aggregate all the units for a site's total allocations. They stated that this type of allocation will allow process units located at hybrid sites to receive more equitable allocations. Without this provision, for example, refining units located at a chemical plant would be treated differently than refining units at a dedicated petroleum refinery. TCC suggested a revision to the definition of "Petroleum refinery" to accomplish this and that refinery not be split out as a separate category for HRVOC allocations.

The rule has been revised based on this comment. The commission does not have sufficient data on actual HRVOC emissions attributable to specific types of process units to support an allocation on a process-unit basis. The proposed allocation methodology has been revised based on additional comments to treat all process units that produce or use HRVOC equally. Sites that strictly store or handle HRVOC and do not have any HRVOC production or use activity will continue to be treated independent of those sites that have HRVOC production or use activity and will receive allowances from a 10% set-aside. The commission will evaluate under its analysis of the eight-hour ozone standard whether it would be appropriate to reallocate allowances based on actual monitored HRVOC data. That potential reallocation could result in a different methodology of allocating emissions if sufficient data is available to warrant an alternative approach.

SUNOCO and ATOFINA-Petrochemical requested that the commission provide a detailed justification for establishing a separate emissions cap for refineries and chemical plants. They also requested an explanation of how the proposed rules would credit facilities, in terms of HRVOC allocations, for early installation and operation of emission control equipment prior to the proposed 2000 - 2004 certification period. The proposal does not seem

to consider facilities that may have already installed controls in excess of those required.

The rules have been revised to remove the specific emissions cap for petroleum refineries. The allocation methodology in the adopted rules treats all sites with HRVOC production or use activity equally.

Allocations are not based on actual HRVOC emissions due to a lack of accurate emissions data. Since the allocation methodology is based on HRVOC production/use, a site that installs and operates emissions control equipment prior to the required compliance date should benefit.

BCCA-AG, MCC, and Valero requested that the commission clarify what percentage of total HRVOC allowances may have already been set aside for sites that do not use or produce HRVOC but simply store them. They requested that the commission confirm that the allocation for storage sites will only increase the figures for HRVOC production and use sites. TCC requested that the commission provide a basis for the 10% figure of total allocations that will be set aside for dedicated storage sites.

The adopted rules allow for the distribution of up to 10% of the total cap for Harris County and up to 10% of the total cap for the other seven counties to be allocated to sites that do not produce or use HRVOCs. If the full 10% that was set aside is not allocated to the sites that do not produce or use HRVOCs, then the remaining allowances not allocated will be distributed under §101.394(a) and (d). The area caps listed in §101.394(a) and (d) do not include the 10% set aside for sites that do not produce or use HRVOC. Therefore, should the full 10% not be allocated to those sites without HRVOC production and use, the area caps listed in §101.394(a) and (d) will increase.

ATOFINA-American supported the set-aside allocations for storage facilities but stated that the commission was silent on how unused allowances at these facilities could be used. ATOFINA-American commented that the surplus allocations should be eligible for trade or purchase.

The commission appreciates the support. Once the allocations for all sites have been determined and placed into each site's compliance account, any excess allowance not needed for compliance may be traded in accordance with §101.399. This would include allowances allocated under §101.394(c) for those sites that do not produce or use HRVOCs.

Basell requested that the commission provide an explanation of the selection of a five-year period to determine level of activity. Basell also stated that the level of activity was a poor substitute for accurate emission inventory data. Without a more certain emission inventory, a regulatory cap could be implemented that would shut down permitted facilities. Basell stated that the focus on HRVOC emissions appears to be based solely on modeling of an August 2000 event and questioned the need for large cuts in HRVOC emissions. TCC asked how the commission would reconcile significant shifts in the HRVOC emission inventory with production and use information.

The commission has revised the rule to allow each site to choose any 12 consecutive months during the period of 2000 - 2004 as the representative baseline period for each process unit subject to the HRVOC control requirements under Chapter 115, Subchapter H, Divisions 1 or 2. A 12 consecutive month baseline period will allow sites to choose a baseline level of activity for each process unit that results in the least amount of impact on

the site's allocation due to unplanned shutdowns, process unit turnarounds, or economic conditions.

The modeling is based on the emissions adjustment, not the other way around as implied by the commenter. The commenter is referred to several peer-reviewed scientific papers, which conclude that HRVOC emissions in the HGB area are severely under-reported in the inventory (*Chemical and Meteorological Characteristics Associated with Rapid Increases of Ozone in Houston, Texas*, Berkowitz et al., 2004; *Modeling the Effects of VOC and NO<sub>x</sub> Emission Sources on Ozone Formation in Houston During the TexAQs 2000 Field Campaign*, Jiang et al., 2004; *Chemical Characterization of Ozone Formation in the Houston-Galveston Area: a Chemical Transport Model Study*, Lei et al., 2004; *Effect of Petrochemical Industrial Emissions of Reactive Alkenes and NO<sub>x</sub> on Tropospheric Ozone Formation in Houston, Texas*, Ryerson et al., 2003; *Signatures of Terminal Alkene Oxidation in Airborne Formaldehyde Measurements During TexAQs 2000*, Wert et al., 2003--see the revised Houston/Galveston/Brazoria One-Hour Ozone Mid-Course Review SIP for references). The commission contends that addressing HRVOC emissions are a necessary part of the attainment strategy for the HGB area. Future control strategy modeling of HRVOC emissions establishes an emission rate at which the one-hour standard can be attained. The area-wide cap has been set at this level. The HRVOC emission inventory will be significantly improved with the additional monitoring requirements of Chapter 115. Several studies have indicated that the HRVOC emission inventory is not consistent with ambient concentration measurements, thus the commission contends that drawing conclusions about the current HRVOC emission inventory without further actual monitoring would be difficult. The commission contends that in general, emissions are proportional to the amount of product handled. In cases where emissions of HRVOC may be lower for one facility handling the same amount of HRVOC as another facility, this reduction can be attributed to better control strategies and environmental management systems. As a part of the development of a one-hour attainment demonstration, the commission may consider reallocating the allowances to be based on actual emissions data as it becomes available.

ATOFINA-American, Basell, BASF, BCCA-AG, Chevron-Phillips, Dow, MCC, TCC, and Valero requested that the commission allow the use of any 12 consecutive months during the period 2000 - 2004 to establish a level of activity instead of the five-year period itself. This will take into account any shutdowns that may have occurred during the five-year period and prevent an artificially low level of allocation. Dow stated that this method would eliminate the need for the extenuating circumstances language in §101.394(i).

The rule has been revised based on this comment. The adopted rule allows each site to choose any 12 consecutive months from the period of 2000 - 2004 as the representative baseline period for each process unit subject to this division.

Basell stated that allowance allocations should be based on permitted emission levels. This allocation would then be based on normal operations and better reflect the production capacity that formed the basis for the capital investment in the facility. Air permits could serve as a base for this allocation method.

The commission has not revised the rule based on this comment. The allocation of allowances based on the allowable limits set forth in an air permit was an option discussed during meetings with stakeholders. However, the option was problematic

because most permits do not explicitly state allowable limits for speciated VOCs. In addition, permit limits are often based on maximum operation and not normal operation. The goal of basing the allowance allocations on actual HRVOC production and use, in the absence of accurate emissions data, was to relate the allocations to data representative of actual operation.

BCCA-AG, MCC, and Valero requested that the commission clarify the intent of §101.394(e) by adding language that the owner of an account must purchase or transfer allowances to cover any deficiency in an account that has been penalized for overdrawing allowances in the previous control period.

The adopted language under §101.394(e) is intended to specify that those sites that engage in trading activities that could result in a site's compliance account being void of allowances for a given year, have the responsibility of purchasing or transferring allowances to cover any penalty assessed for noncompliance for the previous control period. For example, a site is allocated 10.0 tons of HRVOC allowances on a yearly basis. In 2007, the site emits 15.0 tons and transfers 6.0 tons of 2008 allowances through submittal of an individual future year trade application. A penalty of 5.5 tons (the 5.0 tons exceeding the site's allowance possession plus 10%) would be assessed on the 2008 allocation. However, the site's compliance account for 2008 contains only 4.0 tons of allowances (10.0 tons allocated--6.0 tons transferred) due to the transfer transaction and does not hold a sufficient number of allowances to allow full assessment of the 5.5 ton penalty for noncompliance in 2007. Under the adopted rule the site would be responsible for acquiring, on the open market, the additional 1.5 tons of allowances to cover the full penalty amount.

BCCA-AG, MCC, and Valero requested that the commission clarify in the preamble the effect of an overdrawn account on the next year's allocation. They expressed the belief that the penalty for an overdrawn account (the amount overdrawn plus 10% subtracted from the next year's allowances) is applied for only the year immediately after the overdrawn year and does not affect subsequent years.

The commenters are correct. A penalty for noncompliance with a given control period is only assessed on the allocation for the next control period. If a site does not possess sufficient allowances to cover its actual emissions in 2007, a penalty consisting of the amount exceeding the compliance account balance plus an additional 10% would be assessed on the 2008 allocation. If the site then possessed sufficient allowances to cover its actual emissions in 2008, no further allowance penalties would be assessed on that site in 2009. This does not preclude formal enforcement action or penalties resulting from enforcement action.

BCCA-AG, MCC, and Valero objected to language in §101.394(g), which appears to give the executive director the authority to adjust the number of HRVOC allowances based on new SIP requirements. They argued that allowance allocation formulas are established by rule and any change in those allocation procedures should go through a rule change and be approved by the commission. This language, they contended, would allow the executive director to change the HRVOC emissions cap and trade program without amendment to the rules that support it. They also commented that any reminder stating that allocations under the HRVOC emissions cap and trade program are subject to change by the commission only be included in the adoption preamble. ATOFINA-American requested that the rules allow the executive director to expand

the pool of allocations at least every five years to accommodate industrial growth.

The commission agrees that it is highly unlikely that the allocation of allowances would be changed absent a rulemaking. However, there may be unforeseen circumstances that could necessitate the executive director to change allowance allocations. Additionally, in the commission's continuing evaluation of control strategies for the HGB area's eight-hour ozone attainment demonstration a reallocation of allowances, possibly using actual monitored data, may be necessary. Any future reallocation would necessitate a rule change and a revision to the SIP, allowing for public participation and comment.

BCCA-AG, MCC, TCC, and Valero requested that the commission not restrict the HRVOC emissions cap and trade program to existing process units but include a mechanism that would allocate allowances to new or modified process units that have an administratively complete application or have qualified for a permit by rule 60 days after the effective date of the HRVOC emissions cap and trade program. They stated that a precedent exists in the mass emissions cap and trade program that allows allocation to units under construction. They also stated that a portion of the 10% set-aside allowances for storage facilities could be allocated to future projects.

The rule has been revised based on these comments to provide sites subject to the HRVOC emissions cap and trade program the opportunity to convert VOC emission reduction credits to a yearly HRVOC allocation at a ratio based on reactivity. This provision could be used by sites to create additional HRVOC allowances for increases in HRVOC emissions from new or modified covered facilities. The commission chose not to rely on the allocation of allowances remaining from the 10% set-aside due to uncertainty in the number of allowances that would be available to future qualified projects.

Basell, BCCA-AG, MCC, TCC, and Valero commented that extenuating circumstances (i.e., power outages, fire, acts of God) that lead to a forced level of low activity should not be limited to noneconomic factors. They commented that severe economic-related conditions should also be included and that the executive director should have discretion to grant a case-by-case baseline determination.

The rules have not been revised based on these comments. Based on the allocation methodology, any change in level of activity at a site will have a direct impact on the quantity of allowances available to all other sites in the same area. Therefore, it is imperative that the setting of each site's allocation be based on actual HRVOC production and use for that site. The commission contends that the opportunity for each site to choose a 12 consecutive month baseline period for each process unit subject to this division, from the period of 2000 - 2004, will allow sites to establish a level of activity baseline resulting in the least amount of impact on the site's allocation due to forced levels of low activity. The commission is sensitive to economic fluctuations that attribute to varying emission levels and contends that almost all sites under the HRVOC emissions cap and trade program could make an argument for consideration of extenuating circumstances based on economic-related conditions.

Basell commented that the commission should allow alternate allocation methods in the case of extraordinary circumstances. Those methods are: 1) allocate allowances based on permitted operations; 2) allow a site to use one year before or after the 2000 - 2004 period; 3) select a maximum activity year during

2000 - 2004; or 4) allow sites to use VOC credits if it is demonstrated that the credits include HRVOCs. Basell, Dow, and TCC also commented that the commission should provide a method to appeal allocation amounts to the executive director.

The allocation of allowances based on permit limits is not feasible as most NSR permits do not contain allowable limits for specific VOCs. Further, the establishment of the annual HRVOC caps must be based on actual data and not maximum operating data as used in permits. The commission contends that the revised baseline provision will allow sites to establish a level of activity resulting in the best possible level of activity levels for the site and, therefore, sites should not need the added benefit of an extenuating circumstance provision. The commission has also revised the rule to allow sites to convert emission reductions in other VOCs to a yearly allocation of allowances, providing sites an option to increase their allocation should they feel it insufficient. Revisions to allocations based on appeal would have a direct impact on all other sites subject to the cap and trade program creating problems with each site's ability to accurately develop reduction strategies for compliance.

BCCA-AG, MCC, and Valero stated that the proposed wording of §101.401(d) seems to limit the protection of confidential information to only that information concerning the production or use of HRVOC and requested that the wording be changed to eliminate any potential conflict or misunderstanding over the limitations of the protection of confidential material. The confidentiality provisions of the Texas Clean Air Act cannot be waived or restricted by rule. TCC requested that information of specific HRVOC use remain confidential and that only total HRVOC use/production be made public.

The rule has been changed in response to these comments. The commenters have correctly pointed out that the confidentiality provisions of the Texas Clean Air Act cannot be waived or restricted by rule. The provisions of §101.401(d) reiterate that portions of the level of activity certification form, as well as supporting documentation, may be marked as confidential. To minimize potential misunderstandings, the phrase "relating to production and use of highly-reactive volatile organic compounds" has been removed. A governmental body does not have authority to promulgate a rule purporting to make certain information confidential unless it is statutorily authorized to do so.

BCCA-AG, EPA, MCC, and Valero commented that the SECTION BY SECTION DISCUSSION of the preamble refers to an allowance as the authorization to emit 0.1 ton of HRVOC during a control period and that this description conflicts with the definition of allowance in §101.390(1).

The commission has revised the preamble based on this comment to specify that an allowance is the authorization to emit one ton of HRVOC during a control period and expressed to the tenth of a ton.

BCCA-AG, MCC, and Valero commented that the definition section of the proposal should use the existing definitions in rules where possible. They noted the following existing definitions that could be referenced in the HRVOC rules: "Cooling tower heat exchange system" as defined in §115.760(b); "Flare" as defined in §101.1(33); "Houston/Galveston ozone nonattainment area" as defined in §115.10(18); "Highly-reactive volatile organic compounds" as defined in §115.10(17); "Site" as defined in §122.10(27); and "Vent" as defined in 30 TAC §101.1(109).

The commission has revised the rule based on this comment. The adopted rule contains references to existing definitions of

the terms "Highly-reactive volatile organic compounds," "Houston/Galveston/Brazoria ozone nonattainment area," "Process unit," and "Site." In addition, the adopted rules apply to those sites that are subject to Chapter 115, Subchapter H, Division 1 or 2. These rules contain a definition or reference to a definition of the terms "Cooling tower heat exchange systems," "Flare," and "Vent."

TCC requested that the commission add a definition for "HRVOC process unit" that would include production, use, and storage. TCC recommended additional definition for "production," "use," and "process" patterned after EPA publication "Toxic Chemical Release Inventory Reporting Forms and Instructions: Revised 2002 Version," March 2003. TCC also suggested that definitions used in multiple rules should be placed in a common location.

The rule has not been revised based on this comment. The adopted rule does not use the term "HRVOC process unit." Chapter 101 contains the state's general air quality rules where terms used in multiple rules are defined. Terms not specifically defined under rule have meanings commonly ascribed to them in the field of air pollution control. The commission contends that the use of the terms "production," "use," or "process" within the adopted rule does not warrant a specific definition.

TCC commented that a cooling tower heat exchange system will need a minimum allocation of five tpy, regardless of level of activity, to cover emissions from the cooling water system.

The commission has revised the rule based on this comment to provide a minimum allocation of 5.0 tons for sites subject to the HRVOC emissions cap and trade program or exempt sites electing to opt-in to the HRVOC emissions cap and trade program. This revision should address situations where a small site, with relatively little HRVOC production or use activity, receives services, such as cooling water, from a second site. In addition, this revision provides an incentive for exempt sites to opt-in to the cap and trade program. The total amount of allowances allocated based on the minimum 5.0 ton allocations and the corresponding level of activity from those sites receiving a minimum of 5.0 tons will be subtracted from the allocation equation prior to calculating the allocations for the remaining sites.

TCC requested that the commission clarify if sources operating during the baseline determination period but that are now shut down, may count the emissions from the shut down source toward estimates of production and use.

Level of activity from covered facilities operating at any time during the calendar year 2000 - 2004 period but that are now shut down may be counted towards the total HRVOC level of activity for the site. For example, a process unit in operation during calendar years 2000 and 2001 is shut down on April 30, 2001. The owner/operator may choose a baseline period for that process unit of April 1, 2000 - March 31, 2001, in order to count the level of activity contribution of that process unit in calculating the base level of activity for the site.

TCC commented that the commission should allow trades out of Harris County into surrounding counties if those counties are subject to a cap.

The rule has not been revised based on this comment. The commission has provided an exemption for sites located in the seven counties surrounding Harris County. Therefore, it would not be appropriate to allow trades of HRVOC allowances out of Harris County.

TCC supported rule provisions that make future year allowance transfers to be final rather than conditional.

The commission appreciates the commenter's support.

TCC requested that the commission provide the basis for HRVOC allocations to Harris County, surrounding counties, petroleum refineries, and "set-asides."

For Harris County, the annual HRVOC cap was reduced from the HRVOC cap in the December 2002 SIP revision in order to support the attainment demonstration modeling. The total annual cap for Harris County equates to 3,633.1 tons of HRVOC. The annual HRVOC cap for the seven-county surrounding area is equivalent to the total emissions limits established in the December 2002 SIP revision, but represented on an annual basis instead of a 24-hour rolling average. The total annual HRVOC cap for the seven-county surrounding area equates to 5,135.5 tons of HRVOC. The commission then reduced the respective caps by 5% as a compliance margin to address uncertainty in geographical emission shifts under a cap and trade program. Additionally, 10% from each annual HRVOC cap was then set aside for allocation to sites that did not produce or use HRVOCs. For Harris County the amount to be distributed to sites that produce and use HRVOC after reducing the cap for the 5% compliance margin and the 10% set aside is 3,106.3 tons. For the seven-county surrounding area the amount to be distributed to sites that produce and use HRVOC after the 5% and 10% reductions is 4,390.8 tons. The area caps listed in §101.394(a) and (d) are based on these quantities of HRVOC emissions.

Based on comment, the commission has chosen not to allocate to refineries independent of other industries and has elected to treat all process units that produce and use HRVOC equally.

ERCOT expressed concern that proposed rules could inhibit the ability to provide electric power in the event of emergency conditions on the electric grid.

The adopted rules would create a cap and trade program providing a mechanism of compliance for sites that are subject to the HRVOC control requirements under Chapter 115, Subchapter H, Division 1 or 2. These rules address HRVOC emissions from process vents, flares, and cooling towers heat exchange systems. The commission contends that these adopted rules will have no impact on those sites that provide electric power in the HGB area.

EPA requested documentation of the emission levels used in the SIP attainment demonstration and how these levels relate to the cap established for the HRVOC cap. EPA also expressed concern over the determination of level of activity for individual sources and suggested using emission levels included in the attainment model as backups if there is a delay in establishing a cap.

The annual HRVOC cap in Harris County has been reduced from the HRVOC cap in the December 2002 SIP revision in order to support the attainment demonstration modeling. If the commission implements the cap and trade program for the seven-county surrounding area, the cap will be equivalent to the total emissions limits established in the December 2002 SIP revision, but represented on an annual basis instead of a 24-hour rolling average. The commission further reduced the respective caps by 5% as a compliance margin to address uncertainty caused by daily fluctuations in emission rates and differences between how the emissions were modeled for the attainment demonstration and how actual emissions may occur with trading in place.

Additionally, 10% from each annual HRVOC cap was then set aside for allocation to sites that did not produce or use HRVOCs. The area caps listed in §101.394(a) and (d) are based on these quantities of HRVOC emissions determined through current modeling to be sustainable in these areas while demonstrating attainment of the one-hour ozone standard. The commission appreciates EPA's concern over the determination of level of activity for individual sources but does not anticipate any delays in establishing the HRVOC allocations.

EPA requested an analysis demonstrating how the attainment demonstration will be preserved under the HRVOC cap and trade program.

The HRVOC cap and trade program is part of a two part approach to address variable short-term emissions through a not-to-exceed limit and steady-state and routine emissions through an annual cap. The established HRVOC caps are based on the amount of HRVOC emissions determined through current modeling to be sustainable in the HGB area while demonstrating attainment of the one-hour ozone standard. As an additional measure, the annual caps have been reduced by 5% to address uncertainty in the geographic redistribution of emissions between the attainment demonstration model and how actual emissions are likely to occur under the cap and trade program. Total HRVOC emissions from sites subject to the HRVOC cap and trade program would be limited to the annual limits of the cap, thus addressing the steady-state emissions from the area.

The annual HRVOC cap in the seven-county surrounding area is equivalent to the total emissions limits established in the December 2002 SIP revision, but represented on an annual basis instead of a 24-hour rolling average. Based on information provided, the commission determined that enforceable limits on HRVOC emissions within the seven surrounding counties may be sufficient without the need for an additional cap and trade system for those counties. The executive director will continue to evaluate the necessity to require additional short-term and annual limitations on those sites subject to Chapter 115, Subchapter H, Divisions 1 and 2, that are located within the seven-county surrounding area. If the evaluation reveals that the total amount of enforceable HRVOC emissions is at a level that is inconsistent with the attainment demonstration of the NAAQS for one-hour ozone by the attainment date, the commission may revoke the exemption and require compliance with this division by January 1, 2007, or within 180 days after notification, whichever is later.

EPA stated that §101.396(b) appears to exempt emissions above a short-term limit from the HRVOC annual cap. EPA policy for emission caps is that all emissions must be included.

The commenter is correct in that allowances equivalent to emissions from emission events or scheduled maintenance, startup, or shutdown activities that exceed the short-term limits of §115.722(c) or §115.761(c) shall not be deducted for the purposes of the annual cap. However, rule language under §101.396(b) does not exempt HRVOC emissions above the short-term limit from being reported annually by each site or from the requirements of §101.201 or §101.211. Emission events in excess of the short-term limit are unauthorized and subject to formal enforcement action under the commission's rules governing emission events and scheduled maintenance, startup, and shutdown emissions. Under those rules, sources must prove that no ozone exceedance occurred in order to qualify for limited enforcement protection. However, the commission has recognized the possibility that emission events could cause rapid exhaustion of a site's annual allowances, requiring such

sites to depend on market availability of allowances for compliance or lead to formal enforcement for violating the annual cap. Based on this recognition, the adopted rules do not require that emissions exceeding the short-term limit be counted against the annual cap, thus providing the opportunity for a site to still meet the annual limit while exceeding the short-term limit. The commission has determined that emissions above the short-term, not-to-exceed limit should not count against the cap because those emissions are arguably not a part of the base of emissions that comprise the long-term part of the two part strategy. The commission considers it necessary to allow sites the opportunity to comply with the annual limit under the HRVOC emissions cap and trade program in light of unexpected emission events that will exceed the short-term limit.

EPA commented that it is unclear how brokers and broker accounts will function in the HRVOC emissions cap and trade program and requested an explanation.

The term "broker" is used to identify a person or entity that is not required to demonstrate compliance with the HRVOC emissions cap and trade program, yet participates in the banking and trading of allowances. Brokers typically facilitate trades between buyers and sellers. A broker account would be used for recording the allowances held by a broker. Broker accounts would not be subject to allowance deduction due to demonstrating compliance with the HRVOC emissions cap and trade program.

EPA requested that the commission indicate that if reductions for a facility are to be used as NSR offsets, then the allowances associated with the reduction must be permanently retired. This is a feature of the mass emissions cap and trade program and EPA requested a similar assurance for the HRVOC emissions cap and trade program.

The adopted rule does not contain any provisions to allow sources subject to the HRVOC emissions cap and trade program the opportunity to bank reductions that result in unused allowances as ERCs. The adopted rule does provide for new sources under the HRVOC emissions cap and trade program that trigger nonattainment NSR the opportunity to use HRVOC allowances to satisfy the correlating one-to-one portion of the required offset ratio. For example, a new 100-ton source of HRVOC would be required to offset the emissions increase at a ratio of 1.3 to one, yielding a required offset of 130 tons. The source could satisfy the one-to-one portion of the required offset by possessing 100 tons of HRVOC allowances. The remaining 30 tons of the offset would then be offset through traditional credits. Since the HRVOC cap is finite, the transfer of allowances from an existing source to a new source assumes a permanent reduction under the cap.

EPA commented that the HRVOC emissions cap and trade program proposal should address concerns described in the Economic Incentive Programs (EIP) Guidance, §16.8, that are applicable to sources with Title V permits and that the proposal should include an analysis to determine the probability of emission spiking resulting from banked emissions. EPA also commented that the proposal should include an uncertainty analysis addressing trades between the seven HGB nonattainment counties. EPA also requested that the commission address the HRVOC cap and its seeming mismatch with the cap associated with attainment of the ozone standards (eight-hour or one-hour).

Within Texas' Title V program all applicable requirements must be specifically cited in the conditions for each permit. Therefore,

Title V permits for sources that are subject to the HRVOC emissions cap and trade program will contain language referencing the requirements of the HRVOC emissions cap and trade program and its applicability in complying with the HRVOC control requirements under Chapter 115, Subchapter H.

In order to address the concerns raised regarding uncertainty caused by daily fluctuations in emission rates and differences between how the emissions were modeled for the attainment demonstrations, and how actual emissions may occur with trading in place, the commission has reduced the overall HRVOC cap by 5%. An additional safeguard to any potential emissions variability due to trading is also included in the adopted rules by limiting the banking of excess HRVOC allowances to one year. The commission also reserves the right to discontinue trading, in whole or in part, and to adjust the deposit of allowances for any control period as corrective measures to any issues identified as negative to attainment of the ozone standard. Finally, the commission will continue to study the impacts of HRVOC emissions on the HGB area airshed and may choose to reallocate allowances based on actual monitored HRVOC emissions from the first three to four years of program operation when addressing the eight-hour ozone standard.

EPA commented that §101.394(b) could be interpreted to allow changes in level of activity from year to year and the redetermination of allowances.

The rule has been revised to specify that the level of activity for a site will be determined by summing the levels of activity for all process units located at the site that produce one or more HRVOCs as an intermediate, a by-product, or a final product or that use one or more HRVOCs as a raw material or an intermediate to produce a product during the 12 consecutive months chosen from the 2000 - 2004 time period. The commission does not intend to recalculate allocations on a year-by-year basis. However, the commission may consider the reallocation of allowances based on actual HRVOC emissions data monitored in the first three to four years of the program when addressing eight-hour ozone.

EPA commented that §101.396 allows sites to determine HRVOC emissions without EPA approval of the protocol. EPA requested confirmation that this section could be applied only for temporary outages in the monitoring system.

The commission confirms that the emission quantification methods listed in §101.396(c) are only applicable in the event of temporary outages of the monitoring required under §115.725 and §115.764.

EPA requested information on the tracking system for the HRVOC emissions cap and trade program and an explanation of the term "AC" in the allocation formulas.

The commission maintains a comprehensive database system that currently contains all contact information, baseline data, allowance transaction history, and actual emissions data for the mass emissions cap and trade program. The system contains a compliance account for each regulated entity and a broker account for all participating brokers. Each account provides detail on the facilities located at the site that are subject to the program, the amount of allowances allocated to each facility at the site, the number of allowances purchased or sold in a given year, the actual emissions for the site for a given year, the number of vintage allowances carried forward from the previous year, any penalties incurred for noncompliance, and overall account balance for a given year. The information in the database relating

to each account is used to regularly update the mass emissions cap and trade program allowance registry on the commission's Web site. The commission intends to expand this system to provide the same data storage and allowance tracking capabilities for the HRVOC emissions cap and trade program.

The term "AC" in the allocation formulas under §101.394(a) and (d) stands for "area cap" and represents the number of tons of HRVOC emissions that will be allocated for that industrial sector.

EPA requested an explanation of how the HRVOC emissions cap and trade program will provide safeguards against excessive emissions in communities of concern because one of the traded VOCs (1,3 butadiene) is a hazardous air pollutant.

The HRVOC emissions cap and trade program is intended to act as a compliance mechanism for the HRVOC reduction requirements under Chapter 115, Subchapter H and does not supersede the requirements contained in a facility's permit authorization. Under Texas' NSR program, facilities are required to pass a health impacts analysis to ensure the allowable limit set for an air pollutant is at a level demonstrated as safe for public health. In cases where a specific air pollutant, such as 1,3-butadiene, has demonstrated the potential for localized health impacts, the maximum allowable emission rate table in the permit will list a short-term and annual allowable limit for that specific pollutant based on the results of the health impacts analysis. The HRVOC emissions cap and trade program in no way provides any exception to these limits.

EPA commented that the proposal does not adequately address defining program violations, identification of violators, availability of emission data to citizens, citizen lawsuits, enforceability of emission reductions, and collection of penalties. EPA also stated that compliance records should be retained for five years.

If an account does not contain sufficient allowances by March 1 to cover the actual HRVOC emissions, then there has been a violation of the HRVOC emissions cap and trade program. Emissions data gathered by the HRVOC emissions cap and trade program is available to the public. The adopted rules provide for the automatic subtraction of the amount exceeded plus an additional 10% of the site's exceedance from the subsequent year's allocation. Additionally, violations of the HRVOC emissions cap and trade program are subject to the normal enforcement actions of the commission for violating rules and regulations, which can result in administrative penalties up to \$10,000 per violation per day. The commission's penalty policy is not contained in each rule but is a separate policy implemented by the enforcement branch of the commission. Penalties are not generally detailed in the rule so that enforcement staff have the flexibility to make case-by-case determinations. Collection of penalties is also covered in separate policies and rules. Citizen suits are provided for in separate rules and statutes. Specifically, they are provided for under federal law for anything included in a SIP. All sites that are also required to have a Title V permit must retain compliance records for five years.

EPA commented that the HRVOC emissions cap and trade program should require a designated company representative responsible for a source's emissions and allowances.

The commission has not revised the rules based on this comment. The adopted rules do require each site to designate an authorized account representative who is responsible for authorizing the transfer of allowances. The majority of the facilities that will participate in the HRVOC emissions cap and trade program are also required to have a Title V permit. The restrictions under

the HRVOC emissions cap and trade program are applicable requirements under Title V. Therefore, participants in the HRVOC emissions cap and trade program are required under the Title V program to certify on a regular basis their compliance with the HRVOC emissions cap and trade program requirements.

EPA questioned how program audit results in §101.403(a) will be made available to the public and cited applicable guidance in EIP §6.5. EPA also stated that §101.400 does not require that compliance reports disclose violations and potential health and environmental effects to the EPA and the public as discussed in EIP guidance.

The commission intends to provide program audit results through the commission's Web site. The commission continues to believe that posting information on the internet is a superior form of public notice based on widespread internet access, including at public libraries; length of availability for public viewing; and breadth of circulation. In addition, the commission will provide the audit results in hard copy form to anyone requesting a copy. Any violations resulting from failure to comply with the HRVOC emissions cap and trade program or the short-term limit will be referred to the commission's Enforcement Division for formal enforcement action. Any notice of violation resulting from such referral would be included in the site's compliance history. All information relating to an enforcement action or a site's compliance history is available by request to the public. Compliance history information is available on the commission's Web site. In addition, participation in the HRVOC emissions cap and trade program does not preclude compliance with a source's permit limits, which are evaluated for health impacts.

EPA stated that the commission should commit to a program evaluation at least every three years and should consider a more frequent evaluation if stakeholders raise concerns about the program.

The commission has not revised the rule based on this comment. The adopted rule language under §101.403, Program Audits and Reports, requires that a complete audit of the HRVOC cap and trade program be conducted three years following the effective date of the rule and every three years thereafter. The audit will evaluate the impacts of the program on the state's ozone attainment demonstration, availability and cost of allowances, any related compliance issues, and any environmental issues related to the trading of allowances. The audit is required to be submitted to the EPA and made available to the public within six months of its initiation.

EPA requested confirmation that the HRVOC emissions cap and trade program does not give exemptions from reasonably available control technology (RACT).

The commission confirms that the HRVOC emissions cap and trade program does not exempt sources subject to RACT from installing and operating control technology required by RACT.

EPA stated that the opt-in procedures were not clear. EPA asked whether new sources less than ten tpy had to purchase allowances and for clarification that sources greater than ten tpy were required to purchase allowances. EPA asked if existing sources under ten tpy would fit in the existing cap or would the cap be expanded to accommodate the source.

Sites that have a potential to emit of ten tpy or less of HRVOC from all covered facilities will have an opportunity to opt-in to the HRVOC emissions cap and trade program. Those sites that choose to opt-in to the program will receive an allocation under

the existing cap based on their historical level of activity or will receive a minimum five tons of HRVOC allowances. Any site electing not to opt-in will be limited to a potential to emit not to exceed ten tpy of HRVOC. An exempt site that at a later date triggers HRVOC emissions cap and trade program applicability by increasing its potential to emit above ten tpy of HRVOC will not receive an allocation and will be required to acquire allowances to cover actual HRVOC emissions from the open market.

New sites with a potential to emit of ten tpy or less of HRVOC from all covered facilities will be exempt from the HRVOC emissions cap and trade program and not required to possess allowances for their actual emissions. These exempt sites will still be subject to the control requirements under Chapter 115, Subchapter H, including the short-term limit, but will not be subject to the annual cap within the HRVOC emissions cap and trade program. Any new site with a potential to emit greater than ten tpy of HRVOC from all covered facilities would be subject to the HRVOC emissions cap and trade program, would not receive an allowance allocation, and would need to acquire, from the open market, allowances to cover HRVOC emissions from all covered facilities at the site.

EPA stated that the commission will need to provide safeguards against demand shifting.

Under the adopted rules, the HRVOC emissions cap and trade program will apply to all sites that operate process units subject to the HRVOC control requirements under Chapter 115, Subchapter H, Division 1 or 2 and that collectively have the potential to emit more than ten tpy of HRVOC. Sites that have a collective potential to emit of ten tpy or less from covered facilities will be exempt from the HRVOC emissions cap and trade program but are still subject to the HRVOC control requirements under Chapter 115, including the short-term limit. The commission has conducted an analysis of the contribution from these exempt sites to the attainment demonstration and found that the potential emissions from these sites if operating at a full ten tons would add less than 0.4 parts per billion. Further, the commission contends that it is highly unlikely that all sources exempt from the HRVOC emissions cap and trade program will increase emissions to ten tpy.

EPA asked if sources could opt-in after 2005 and if shutdowns could generate allowances. Dow also questioned whether a future site could opt-in to the program in 2007 or later and requested that §101.392 be clarified on this point. TCC also suggested clarification and that new sources be allowed to opt-in after 2005 within 60 days of commencing operation. ATOFINA-American stated that the commission should allow an opt-in at any time after April 2005.

Sites that have a potential to emit of ten tpy or less of HRVOC from all covered facilities must notify the commission of their decision to opt-in to the HRVOC emissions cap and trade program no later than April 30, 2005. Those sites that choose to opt-in to the program will receive an allocation based on their historical level of activity or a minimum allocation of five tons. Based on the methodology in the adopted rule for determining a site's allocation, there will be no additional opportunity for sites to opt-in to the program at a future date.

Newly constructed sites triggering HRVOC emissions cap and trade program applicability that begin operation after the baseline period will not receive an allocation and must acquire allowances to cover their actual emissions from the open market. Any new covered facility at a site already subject to the HRVOC

emissions cap and trade program based on potential to emit or at a site that has elected to opt-in to the HRVOC emissions cap and trade program will automatically be subject to the HRVOC emissions cap and trade program and be required to possess allowances equivalent to its actual emissions. For sites that have a potential to emit of ten tpy or less from all covered facilities and do not elect to opt-in to the HRVOC emissions cap and trade program by April 30, 2005, but trigger HRVOC emissions cap and trade program applicability due to the future addition of covered facilities resulting in the increase of the site's potential to emit above ten tpy, no allowances will be given for either the existing or newly added facilities.

Each site's allocation of HRVOC allowances will be determined by the level of activity from all covered facilities at the site in operation during the chosen baseline period. Should a covered facility that contributed to the baseline level of activity for the site be shut down at a future date, no reduction in allowances will be required of the site for the shutdown.

TCC stated that new sources opting-in to the program must purchase all of their allowances instead of receiving an initial allocation. Existing sources receive an initial allocation and need only purchase allowances for growth.

A site with the potential to emit more than ten tpy of HRVOC that begins operation of a new process unit subject to Chapter 115, Subchapter H, Division 1 or 2 after the baseline period will not receive allowances based on the level of activity contribution of the new process unit and will have to acquire allowances from the open market to cover any actual HRVOC emissions from the new process unit. Any new site with the potential to emit more than ten tpy of HRVOC from process units subject to Chapter 115, Subchapter H, Division 1 or 2 will automatically be subject to the HRVOC emissions cap and trade program, will not receive an allowance allocation, and must acquire allowances from the open market to cover the actual HRVOC emissions from covered facilities at the site. Any site exempt from the HRVOC emissions cap and trade program based on potential to emit that elects not to opt-in to the HRVOC emissions cap and trade program by April 30, 2005, but at a later date triggers HRVOC emissions cap and trade program applicability, will not receive an allowance allocation, and must acquire allowances to cover the actual HRVOC emissions from all covered facilities at the site.

Houston/Harris County, HCPHES, and GHASP commented that the HRVOC cap and trade program should be implemented only after the HRVOC inventory is validated or significantly improved in order to structure the cap program considering the distribution of HRVOC around Harris County. HCPHES stated that this could mean dividing the county into smaller trading areas with individual caps. Houston/Harris County, HCPHES, GHASP, and Environmental Defense also urged that the mass emissions cap and trade program be reviewed to prevent a trading concentration of NO<sub>x</sub> into Harris County. GHASP noted that there is no restriction on trading across county lines. GHASP also commented that the audit of the NO<sub>x</sub> cap program does not include a provision for addressing the geographic distribution of allowances and that an audit once every three years is inadequate to address problems that might occur annually.

The commission has not revised the rules based on these comments. While waiting until additional data regarding HRVOC emissions becomes available would be preferable, that data will not be available in time to allow implementation of the rules in time to meet the 2007 attainment deadline. In the absence of

additional data on HRVOC emissions, the commission considers the allocation of allowances based on actual HRVOC production and use to be a viable alternative. The potential geographic redistribution of emissions has also been addressed by reducing the overall HRVOC cap by 5%. The commission does not consider the division of Harris County into smaller trading zones necessary at this time, but will continuously monitor the effects of HRVOC trades on the county's progress toward reducing ozone exceedances.

The concepts of increasing the frequency of audits under the mass emissions cap and trade program, geographic distribution of mass emissions cap and trade program allowances, or preventing concentrations of mass emissions cap and trade allowances from being traded into Harris County is not being addressed in this rulemaking.

Sierra Club commented that the HRVOC cap and trade program should be held in abeyance until a more accurate emission inventory is available.

The commission agrees that more accurate HRVOC emissions data is needed for the HGB area, however, contends that a finite cap on HRVOC emissions is needed to achieve attainment of the one-hour ozone standard.

Sierra Club stated its opposition to emission trading programs because they result in environmental discrimination by concentrating emissions in certain communities.

The commission made no changes to the rules in response to these comments. The commission's ozone reduction strategy is regional and is intended to achieve a target level of reduced regional HRVOC and subsequently a reduction in ozone. The commission contends that this strategy will lead to public health benefits for the entire region. Under the cap and trade program, HRVOC emissions have a finite cap that is set at levels demonstrated to attain the one-hour standard for ozone. The commission contends that emissions banking and trading programs, such as the HRVOC emissions cap and trade program, are flexible and environmentally sound programs that reward good pollution control practices. The commission acknowledges that, under these programs, some sources will purchase allowances for more emissions rather than install additional controls or upgrade equipment, but these sources are still controlled to a level that is protective of human health and may not exceed permitted allowable emissions.

Environmental Defense stated that a cap and trade program for HRVOC should not be implemented until the benefits of such a program are compared with a site-by-site control strategy. GHASP added that a cap and trade program should prevent short-term variability at individual sources or areas and consider concentration of emissions at individual sites and the effect on ozone formation. GHASP stated that an HRVOC cap and trade program presents risks to attainment strategies unless there is a method to review concentration of allowances in specific geographic areas and recommended that the program not be implemented until the commission can demonstrate that it can rely on industry to effectively monitor and report HRVOC emissions. Two individuals also commented that cap and trade programs are not as effective as command and control programs. Another individual suggested that companies all contribute to an escrow fund that would be forfeited if any individual company violates applicable rules.

The commission contends that a cap and trade program is an appropriate method of implementation considering that meeting the ozone standard is a regional goal. Short-term variability has been addressed through the rules by two means, the first is the implementation of the not-to-exceed limit of 1,200 pounds per hour. The commission contends that holding individual sites to this maximum hourly rate in combination with the annual limitation will prevent exceedances of the one-hour ozone standard. To address uncertainty associated with hourly variability, the annual cap has been reduced by 5%, a value consistent with current research. Based on the mass emissions cap and trade program, which regulates NO<sub>x</sub> emissions in the HGB area, emissions trading is not expected to result in concentrations of emissions that would jeopardize the attainment strategy. A cap and trade program, when properly implemented and enforced, is a more effective means of achieving overall emission reductions than a command and control strategy because a cap and trade encourages the most cost-effective reductions to be implemented first. Under the Texas Clean Air Act, the commission does not have the authority to require contributions to an escrow account that may be forfeited should any one person contributing to that account violate an applicable rule.

GHASP stated that an HRVOC program should be allowed to reasonably accommodate changes in production and structure of companies and to offer an alternative compliance method for companies that have unexpected emission control complications. In structuring such a trading program the commission should limit the use of banking to reduce year-to-year variations in emissions, consider the potential for geographic concentrations of emissions, and prohibit short-term trading as it is contrary to the design of the site-wide emission cap system.

The commission contends that the adopted rules establish reasonable flexibility for affected industries while limiting the potential of banked or traded emissions to negatively impact attainment of the one-hour ozone standard.

GHASP supported the idea of a limited trading system and suggested that companies be required to hold an adequate number of allowances at the beginning of each month to meet their daily emissions for the month and that each trade be approved on a case-by-case basis by the executive director with a chance for appeal to the commission. GHASP also stated that the entire trading process should be transparent and all information used for allowance allocation and the structuring of the trading system should be available to the public.

The concept of monthly true up for each compliance account would create undue burden on affected industry and agency staff. The approach adopted by the commission is a dual approach, limiting short-term emissions through a not-to-exceed hourly limit and controlling steady-state and routine emissions through an annual cap.

All transfer transactions of HRVOC allowances are required under the adopted rules to be approved by the executive director. The adopted rules also provide for the limiting or discontinuation of allowance trading. The receipt of transfer applications by the executive director will continue to be available to the public through the use of the commission's Web site (emissions banking and trading database advanced search function and HRVOC emissions cap and trade program allowance registry). Additionally, all information, not marked as confidential under Texas Health and Safety Code, §382.041, that pertains to the establishment of HRVOC allocations will be available to the public under the Texas Public Information Act.

GHASP expressed concern about the ability of the commission to administer, monitor, and enforce an additional cap and trade program with its current resources and staffing.

The commission appreciates the commenter's concerns. Resources necessary to adequately administer, monitor, and enforce the adopted rules will be allocated in a manner that ensures accomplishment of the HRVOC emissions cap and trade program.

#### STATUTORY AUTHORITY

The new sections are adopted under Texas Water Code, §5.103, concerning Rules, and §5.105, concerning General Policy, that authorize the commission to adopt rules necessary to carry out its powers and duties under the Texas Water Code; and under Texas Health and Safety Code, §382.017, concerning Rules, that authorizes the commission to adopt rules consistent with the policy and purposes of the Texas Clean Air Act. The new sections are also adopted under Texas Health and Safety Code, §382.002, concerning Policy and Purpose, that establishes the commission purpose to safeguard the state air resources, consistent with the protection of public health, general welfare, and physical property; §382.011, concerning General Powers and Duties, that authorizes the commission to control the quality of the state air; and §382.012, concerning State Air Control Plan, that authorizes the commission to prepare and develop a general, comprehensive plan for the control of the state air. The new sections are also adopted under Texas Health and Safety Code, §382.014, concerning Emission Inventory, that authorizes the commission to require a person whose activities cause air contaminant emissions to submit information to enable the commission to develop an emissions inventory; §382.016, concerning Monitoring Requirements, that authorizes the commission to prescribe reasonable requirements for the measuring and monitoring of air contaminant emissions; and §382.051 and §382.0518, concerning Permitting Authority of Commission and Preconstruction Permit, that authorize the commission to issue preconstruction and operating air permits. The new sections are also adopted under 42 USC, §7410(a)(2)(A), that requires state implementation plans to include enforceable measures or techniques, including economic incentives such as fees, marketable permits, and auction of emission rights.

#### §101.390. Definitions.

The following words and terms, when used in this division, have the following meanings, unless the context clearly indicates otherwise.

(1) Allowance--The authorization to emit one ton of highly-reactive volatile organic compounds, expressed in tenths of a ton, during a control period.

(2) Authorized account representative--The responsible person who is authorized in writing to transfer and otherwise manage allowances for the site.

(3) Banked allowance--An allowance that is not used to reconcile emissions in the designated year of allocation, but is carried forward for up to one year and noted as banked in the compliance account or broker account.

(4) Broker--A person that is not required to participate in the requirements of this division, but that opens an account under this division for the purpose of banking and trading allowances.

(5) Broker account--The account where allowances held by a broker are recorded. Allowances held in a broker account may not be used to satisfy compliance requirements for this division.

(6) Compliance account--The account in which allowances held by a site are recorded for the purposes of meeting the requirements of this division.

(7) Level of activity--The amount of highly-reactive volatile organic compounds, as defined in §115.10 of this title (relating to Definitions), in pounds produced as an intermediate, by-product, or final product or used by a process unit during a given period of time, but excluding any recycled highly-reactive volatile organic compounds internal to the process unit.

#### §101.391. Applicability.

This division applies to each site, as defined in §122.10 of this title (relating to General Definitions), in the Houston/Galveston/Brazoria ozone nonattainment area, as defined in §115.10 of this title (relating to Definitions), that is subject to Chapter 115, Subchapter H, Division 1 of this title (relating to Vent Gas Control) or Division 2 of this title (relating to Cooling Tower Heat Exchange Systems). Covered facilities include vent gas streams, flares, and cooling tower heat exchange systems that emit highly-reactive volatile organic compounds, as defined in §115.10 of this title (relating to Definitions), and that are located at a site subject to Chapter 115, Subchapter H of this title (relating to Highly-Reactive Volatile Organic Compounds). For the purpose of compliance with Chapter 115, Subchapter H, Division 1 or Division 2 of this title, each site that meets the applicability requirements of this section, or elects to opt-in to this division under §101.392(b) of this title (relating to Exemptions), shall always be subject to this division.

#### §101.392. Exemptions.

(a) Sites in the Houston/Galveston/Brazoria ozone nonattainment area that have the potential to emit, as defined in §116.12 of this title (relating to Nonattainment Review Definitions), ten tons per year or less of highly-reactive volatile organic compounds from all covered facilities at the site are exempt from the requirements of this division.

(b) Sites exempt from this division under subsection (a) of this section may elect to opt-in to the requirements of this division by notifying the executive director in writing by April 30, 2005.

(c) All sites in the Houston/Galveston/Brazoria ozone nonattainment area, excluding Harris County, are exempt from the requirements of this division except for §101.401 of this title (relating to Level of Activity Certification). The commission may revoke this exemption upon public notice of this revocation. If the exemption is revoked, sites subject to this division located in the Houston/Galveston/Brazoria ozone nonattainment area, excluding Harris County, must comply by January 1, 2007, or within 180 days of public notice, whichever is later.

#### §101.393. General Provisions.

(a) Allowances may be used only for the purposes described in this division and may not be used to meet or exceed the emission limitations authorized under Chapter 116, Subchapter B of this title (relating to New Source Review Permits), or any other applicable rule or law.

(b) The initial control period is January 1, 2007, through December 31, 2007. Each control period after December 31, 2007, shall begin January 1 and end December 31 of each year. No later than March 1 after each control period, a site subject to this division must hold a quantity of allowances in its compliance account that is equal to or greater than the total highly-reactive volatile organic compound emissions from the covered facilities located at the site during the control period.

(c) Allowances may not be used to satisfy netting requirements under Chapter 116, Subchapter B, Divisions 5 and 6 of this title (relating to Nonattainment Review; and Prevention of Significant Deterioration Review).

(d) Allowances may be used simultaneously to satisfy the requirements of this division and the one-to-one portion of the offset requirements for new or modified covered facilities, subject to federal nonattainment new source review requirements as provided in Chapter 116, Subchapter B, Division 7 of this title (relating to Emission Reductions: Offsets).

(e) An allowance does not constitute a security or a property right.

(f) All allowances will be allocated, transferred, deducted, or used in tenths of tons. The number of allowances will be rounded down to the nearest tenth of a ton when determining excess allowances and rounded up to the nearest tenth of a ton when determining allowances used.

(g) Each site shall have only one compliance account.

(h) The commission will maintain a registry of compliance accounts and broker accounts. The registry will not contain proprietary information.

*§101.394. Allocation of Allowances.*

(a) On January 1, 2007, the executive director will deposit allowances into compliance accounts as follows.

(1) For sites located in Harris County that are not eligible to receive allowances under subsection (c) of this section, allowances for the emissions of one or more of the highly-reactive volatile organic compounds (HRVOC) as defined in §115.10 of this title (relating to Definitions), will be determined using the equation in the following figure.

Figure: 30 TAC §101.394(a)(1)

(2) For sites located in Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, and Waller Counties that are not eligible to receive allowances under subsection (c) of this section, allowances for emissions of ethylene and propylene for each site will be determined using the equation in the following figure.

Figure: 30 TAC §101.394(a)(2)

(b) The level of activity of a site shall be determined by summing the levels of activity from the chosen 12 consecutive month period for each process unit, as defined in §115.10 of this title, located at the site that produce one or more HRVOCs as an intermediate, by-product, or final product or that use one or more HRVOCs as a raw material or intermediate to produce a product.

(c) The owner or operator of a site that is subject to this division, but that does not include a process unit that produces or uses an HRVOC, shall apply by January 30, 2005, to the executive director for an allocation based on HRVOC throughput or storage capacity for any 12 consecutive months during the period of 2000 through 2004.

(1) The executive director may equitably allocate up to 10% of the total HRVOC allocations for Harris County to all such sites located in Harris County;

(2) For sites located in Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, and Waller Counties, the executive director may allocate up to 10% of the total HRVOC emissions allocated for those counties to all such sites located in Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, and Waller Counties.

(3) The executive director shall distribute all allowances not allocated under this subsection proportionally to those sites receiving allocations under subsections (a) and (b) of this section.

(d) Sites subject to the requirements of this division or electing to opt-in to the requirements of this division that receive an HRVOC

allocation of less than 5.0 tons based on the allocation methodologies under subsection (a) or (c) of this section shall be eligible to receive a minimum allocation of 5.0 tons of HRVOC allowances per year.

(e) If the total actual HRVOC emissions from the covered facilities at a site during a control period exceed the amount of allowances in the compliance account for the site on March 1 following the control period, allowances for the next control period shall be reduced by an amount equal to the emissions exceeding the allowances in the compliance account plus 10% of the exceedance. This allocation reduction does not preclude the executive director from initiating an enforcement action. If a compliance account does not hold sufficient allowances to accommodate the reduction, the executive director may issue a notice of deficiency to the owner or operator. The owner or operator shall purchase or transfer allowances sufficient to accommodate the reduction within 30 days of issuance of the notice of deficiency from the executive director.

(f) Allowances will be allocated by the executive director, who will deposit allowances into each compliance account:

(1) initially, by January 1, 2007; and

(2) subsequently, by January 1 of each following year.

(g) The executive director may adjust the deposits for any control period to reflect new or existing state implementation plan requirements.

(h) The executive director may add or deduct allowances from compliance accounts based on the review of reports required under §101.400 of this title (relating to Reporting).

*§101.399. Allowance Banking and Trading.*

(a) Allowances allocated for a control period that are not used for compliance in that control period may be banked for use in demonstrating compliance for the next control period or transferred.

(b) Allowances that have not expired or been used may be transferred at any time during a control period, except as provided in this section.

(1) The person desiring to transfer the allowances shall apply for approval of the transaction to the executive director by submitting a completed Form ECT-2, Application for Transfer of Allowances.

(2) The ECT-2 form must include the purchase price per allowance proposed to be paid, except for transactions between sites under common ownership or control.

(3) All information regarding the quantity and purchase price of the allowances will be immediately made available to the public.

(4) If the executive director approves the application, the executive director will send a letter to the seller and purchaser reflecting the transaction. The transaction is final upon issuance of the letter.

(c) A person receiving allowances on an annual basis may permanently transfer ownership of current and future allowances to any person in accordance with the following requirements.

(1) The person desiring to transfer the allowances shall apply for approval of the transaction to the executive director by submitting a completed Form ECT-4, Application for Permanent Transfer of Allowance Ownership.

(2) The ECT-4 form must include the purchase price per allowance proposed to be paid, except for transactions between sites under common ownership or control.

(3) All information regarding the quantity and purchase price of the allowances will be immediately made available to the public.

(4) If the executive director approves the application, the executive director will send a letter to the seller and purchaser reflecting the transaction. The transaction is final upon issuance of the letter.

(d) A person may transfer allowances that are scheduled to be allocated in a future control period but have not yet been deposited into an account.

(1) The person desiring to transfer the allowances shall apply for approval of the transaction to the executive director by submitting a completed Form ECT-5, Application for Transfer of Individual Future Year Allowances.

(2) The ECT-5 form must include the purchase price per allowance proposed to be paid, except for transactions between sites under common ownership or control.

(3) All information regarding the quantity and purchase price of the allowances will be immediately made available to the public.

(4) If the executive director approves the application, the executive director will send a letter to the seller and purchaser reflecting the transaction. The transaction is final upon issuance of the letter.

(e) Allowances generated from sites located in counties other than Harris County may not be used at sites located in Harris County. Allowances generated from sites located in Harris County may not be used at sites located in counties other than Harris County.

(f) Only authorized account representatives may transfer allowances.

(g) Allowances subject to an approved transaction will be deposited into the purchaser's broker or compliance account within 30 days of receipt of a completed transfer application.

(h) Volatile organic compound emission reduction credits (ERC) certified in accordance with Division 1 of this subchapter (relating to Emission Credit Banking and Trading) may be converted to a yearly highly-reactive volatile organic compound (HRVOC) allocation.

(1) Qualified volatile organic compound (VOC) ERCs must be generated:

(A) from a reduction at a site located in the Houston/Galveston/Brazoria nonattainment area;

(B) from a reduction strategy implemented after December 31, 2004; and

(C) from a reduction in VOC species other than those defined as HRVOCs under §115.10 of this title (relating to Definitions).

(2) VOC reductions due to the installation of best available control technology do not qualify for conversion under this subsection.

(3) In addition to the requirements of Division 1 of this subchapter, a qualified VOC ERC must meet the following requirements:

(A) the ERC must be quantifiable, real, surplus, enforceable, and permanent as required in §101.302 of this title (relating to General Provisions) at the time the ERC is converted;

(B) the baseline emissions to which the VOC reduction is compared must consist of the average actual emissions for any two consecutive calendar years preceding the emission reduction strategy

and that include or follow the most recent year of emission inventory used in the state implementation plan;

(C) the quantification of VOC reductions must be performed using the monitoring and testing methods required under §115.725 or §115.764 of this title (relating to Monitoring and Testing Requirements) and subject to the recordkeeping and reporting requirements under §115.726 and §115.766 of this title (relating to Recordkeeping and Reporting Requirements);

(D) the ERC must not have expired; and

(E) the owner of the ERC shall have prior approval from the executive director to convert the ERC to an HRVOC allocation.

(4) VOC ERCs must be converted to HRVOC allowances at a ratio calculated using the equation in the following figure. Figure: 30 TAC §101.399(h)(4)

(5) For each site eligible to receive allowances under §101.394(a) or (c) of this title (relating to Allocation of Allowances), additional HRVOC allowances received from the conversion of VOC ERCs under this subsection must be limited to a quantity not to exceed more than 5% of the site's initial HRVOC allocation.

(6) In addition to paragraph (5) of this subsection, sites subject to this division may receive an HRVOC allocation from the conversion of VOC ERCs under this subsection equivalent to any HRVOC emissions increases from new or modified covered facilities not in operation prior to January 2, 2004, and that were included in an application for a permit under Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification) that was deemed administratively complete by the executive director within one year of the effective date of this rule.

#### §101.400. Reporting.

(a) No later than March 31 after each control period, each site shall submit a completed Form ECT-1H, Highly-Reactive Volatile Organic Compound (HRVOC) Emissions Cap and Trade Annual Compliance Report, to the executive director, which shall include the following:

(1) the total amount of actual HRVOC emissions from covered facilities at the site during the preceding control period;

(2) the method or methods used to determine the actual HRVOC emissions, including, but not limited to, monitoring protocol and results, calculation methodologies, and emission factors; and

(3) a summary of all final transactions for the preceding control period.

(b) For sites failing to submit an ECT-1H form by the required deadline in subsection (a) of this section, the executive director may withhold approval of any proposed trades from that site involving allowances allocated for the control period for which the ECT-1H form is due or to be allocated in subsequent control periods.

#### §101.401. Level of Activity Certification.

(a) No later than April 30, 2005, the owner or operator of each site subject to this division shall submit to the executive director a completed Form ECT-3H, Highly-Reactive Volatile Organic Compound Emissions Cap and Trade Level of Activity Certification Form.

(b) For each process unit subject to this division, the owner or operator shall certify in the ECT-3H form the level of activity for the selected 12 consecutive months during the period of 2000 through 2004.

(c) The owner or operator shall attach to the ECT-3H form information and documentation necessary to support the proposed level of activity baseline.

(d) The owner or operator of the site may mark any portion of the ECT-3H form, or supporting information and documentation, as confidential under Texas Health and Safety Code, §382.041.

(e) In conjunction with submission of the ECT-3H form, the owner or operator of the site subject to this division shall provide enforceable documentation of the maximum allowable emission rate of highly-reactive volatile organic compounds from facilities located at that site.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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CHAPTER 114. CONTROL OF AIR  
POLLUTION FROM MOTOR VEHICLES  
SUBCHAPTER J. OPERATIONAL CONTROLS  
FOR MOTOR VEHICLES  
DIVISION 1. MOTOR VEHICLE IDLING  
LIMITATIONS

**30 TAC §§114.500, 114.502, 114.507, 114.509**

The Texas Commission on Environmental Quality (commission) adopts the repeal of §§114.500, 114.502, 114.507, and 114.509. Sections 114.500, 114.502, 114.507, and 114.509 are adopted *without changes* as published in the June 11, 2004, issue of the *Texas Register* (29 TexReg 5741).

Repealed §§114.500, 114.502, 114.507, and 114.509 and the corresponding revisions to the state implementation plan (SIP) will be submitted to the United States Environmental Protection Agency (EPA) as a revision to the SIP.

BACKGROUND AND SUMMARY OF THE FACTUAL BASIS  
FOR THE ADOPTED REPEALS

The Houston/Galveston/Brazoria (HGB) ozone nonattainment area is classified as Severe-17 under the Federal Clean Air Act Amendments of 1990, as codified in 42 United States Code (USC), §§7401 *et seq.*, and therefore, is required to attain the national ambient air quality standard (NAAQS) one-hour standard for ozone of 0.12 parts per million (125 parts per billion (ppb)) by November 15, 2007. The HGB area consists of Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties, and the commission has been working to develop a demonstration of attainment in accordance with 42 USC, §7410. The most relevant HGB SIP revisions to date are the December 2000 one-hour ozone standard attainment

demonstration, the September 2001 follow-up revision, and the December 2002 nitrogen oxides (NO<sub>x</sub>)/highly-reactive volatile organic compound (HRVOC) revision.

This process has proven to be challenging due to the magnitude of reductions needed for attainment. The emission reduction requirements included as part of the December 2000 SIP revision represent substantial, intensive efforts on the part of stakeholder coalitions in the HGB area, in partnership with the commission, to address ozone. These coalitions include local governmental entities, elected officials, environmental groups, industry, consultants, and the public, as well as EPA and the commission, and worked diligently to identify and quantify control strategy measures for the HGB area attainment demonstration.

*December 2000*

The December 2000 SIP revision contained rules and photochemical modeling analyses in support of the HGB area ozone attainment demonstration. The majority of the emissions reductions identified in this revision were from a 90% reduction in point source NO<sub>x</sub>. The modeling analysis also indicated a shortfall in necessary NO<sub>x</sub> emission reductions, such that an additional 91 tons per day (tpd) of NO<sub>x</sub> reductions were necessary for an approvable attainment demonstration. In addition, the revision contained post-1999 rate-of-progress (ROP) plans for the milestone years 2002 and 2005 and for the attainment year 2007, and transportation conformity motor vehicle emissions budget (MVEB) for NO<sub>x</sub> and volatile organic compound (VOC) emissions. The SIP also contained enforceable commitments to implement further measures in support of the HGB area attainment demonstration, as well as a commitment to perform and submit a midcourse review.

*September 2001*

The September 2001 SIP revision for the HGB area included the following elements: 1) corrections to the ROP table/budget for the years 2002, 2005, and 2007 due to a mathematical inconsistency; 2) incorporation of a change to the idling restriction control strategy to clarify that the operator of a rented or leased vehicle is responsible for compliance with the requirements in situations where the operator of a leased or rented vehicle is not employed by the owner of the vehicle (The commission committed to making this change when the rule was adopted in December 2000.); 3) incorporation of revisions to the clean diesel fuel rules to provide greater flexibility for compliance with the requirements of the rule while preserving the emission reductions necessary to demonstrate attainment in the HGB area; 4) incorporation of a stationary diesel engine rule that was developed as a result of the state's analysis of EPA's reasonably available control measures; 5) incorporation of revisions to the point source NO<sub>x</sub> rules; 6) incorporation of revisions to the emissions cap and trade rules; 7) the removal of the construction equipment operating restriction and the accelerated purchase requirement for Tier 2/3 heavy-duty equipment; 8) the replacement of these rules with the Texas Emission Reduction Plan (TERP) program; 9) the layout of the midcourse review process that details how the state will fulfill the commitment to obtain the additional emission reductions necessary to demonstrate attainment of the one-hour ozone standard in the HGB area; and 10) replacement of the 2007 ROP MVEBs to be consistent with the attainment MVEBs.

As was discussed in the December 2000 revision, the modeling resulted in a 141 ppb peak ozone level that correlated to a shortfall calculation of 91 tpd NO<sub>x</sub> equivalent emissions. An additional five tpd was added to the shortfall, because the state