The Texas Commission on Environmental Quality (TCEQ or commission) adopts amendments to §§101.1, 101.390 - 101.394, 101.396, and 101.399 - 101.401.

Sections 101.390 - 101.392, 101.394, 101.396, 101.399, and 101.401 are adopted *with changes* to the proposed text as published in the October 9, 2009, issue of the *Texas Register* (34 TexReg 6989). Sections 101.1, 101.393, and 101.400 are adopted *without changes* and will not be republished.

These amendments will be submitted to the United States Environmental Protection Agency (EPA) as a revision to the state implementation plan (SIP).

BACKGROUND AND SUMMARY OF THE FACTUAL BASIS FOR THE ADOPTED RULES

The Houston-Galveston-Brazoria (HGB) metropolitan area was designated nonattainment for the 1997 eight-hour ozone National Ambient Air Quality Standard (NAAQS) as a moderate area effective June 15, 2004. In October 2008, the HGB area was reclassified as a severe ozone nonattainment area by the EPA as requested by the governor of Texas. The HGB area is required to attain the 1997 eight-hour ozone standard of 0.08 parts per million as expeditiously as practicable, but no later than by June 15, 2019. The EPA requires submittal of the HGB Attainment Demonstration SIP Revision for the 1997 Eight-Hour Ozone Standard by April 15, 2010. This rulemaking will be submitted as part of the HGB Attainment Demonstration SIP Revision for the 1997 Eight-Hour Ozone Standard.

Photochemical modeling analysis demonstrates that a 25% reduction of the highly reactive volatile organic compound (HRVOC) cap in Harris County would contribute to attainment of the 1997 eight-hour ozone NAAQS by reducing the future 2018 ozone design values for all HGB area monitors. The largest

reductions are projected at the Deer Park monitoring site, which is the area's driving design value monitor.

In addition, some regulated entities participating in the HRVOC Emissions Cap and Trade (HECT) program have commented that the initial allocation of HRVOC allowances was not equitably distributed. The existing allocation methodology is based on the total amount, in pounds, of HRVOC produced as an intermediate, byproduct, or final product, or used by a process unit at each participating site. Subsequent analysis of the HRVOC emissions data reported under the HECT program for the 2007 and 2008 calendar- year control periods supports the assertion that some industry sectors may have been over-allocated while others may have received an insufficient allocation. Although reallocation is not required to model attainment of the 1997 eight-hour attainment demonstration HGB SIP revision, the adopted reallocation methodology is designed to result in a more equitable allocation of allowances while establishing an enforceable cap in HRVOC allowances in Harris County in support of HGB's attainment of the NAAQS as expeditiously as practicable.

As part of the December 2004 HGB SIP revisions of the mid-course review for the one-hour ozone standard, the commission developed a dual approach to achieve the necessary HRVOC reductions: 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 reduced 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.

For Harris County, the annual HRVOC cap was distributed and enforced through the HECT program

under Chapter 101, Subchapter H, Division 6. This program established a mandatory annual HRVOC emissions cap on all sites subject to the HRVOC control requirements of 30 TAC Chapter 115, Subchapter H, Division 1 or Division 2, and having a potential to emit (PTE) greater than ten tons per year (tpy). The cap is enforced through the allocation, trading, and banking of allowances. An allowance is the equivalent of one ton of HRVOC emissions. This HRVOC cap, initially implemented on January 1, 2007, was 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 HECT program also requires subject sites with new or modified HRVOC sources to obtain unused allowances from other sites already participating in the program for any increased HRVOC emissions. For sites that have a PTE of 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 is limited to ten tpy. Sites exempt from the HECT program were extended an opportunity to opt-in, receive an HRVOC allocation, and thereby not be restricted to the ten tpy limit.

Revisions to the HECT program under this rulemaking will reduce the total HECT cap by 25% prior to the attainment year and revise the HRVOC allocation methodology to address inequities from the initial allocation. Photochemical modeling analysis demonstrates that a 25% reduction of the total HRVOC cap in Harris County will advance attainment of the 1997 eight-hour ozone NAAQS by reducing the future 2018 ozone design values at all HGB monitors. The largest decrease in the projected design value was at the Deer Park monitor. The average decrease for all sites was 0.13 parts per billion (ppb).

HRVOC monitoring data reported for 2006 - 2008 indicates that the total actual emissions from sources in the HECT program have been approximately 50% of the total current HRVOC cap. Because the HRVOC

rules in Chapter 115, Subchapter H, Divisions 1 and 2, require emissions from maintenance, startup, and shutdown activities and emissions events be included in the HECT program, the total surplus observed in the two years that the program has been active cannot be removed. Therefore, a buffer in the cap is still needed to account for the inherent variability of HRVOC emissions associated with these activities.

The adopted rules will implement an initial 10% reduction of the existing available cap of 3,451.5 tons beginning with the 2014 calendar-year control period. The available cap will then be reduced in a "stepdown" fashion, similar to the existing Mass Emissions Cap and Trade Program (MECT) for nitrogen oxides (NO_X), in 5% increments at the start of each calendar-year control period for 2015, 2016, and 2017. Therefore, the full 25% cap reduction will have been in effect for one full calendar-year control period by January 1, 2018. While historical data demonstrates an overall surplus in the HRVOC cap, the cap reduction and reallocation may require some individual sites to install additional controls. The commission is therefore adopting this stepdown approach to allow companies time to install controls if necessary.

Following the initial allocation of allowances, companies participating in the HECT program commented that the allocation was not equitably distributed. Emissions reported by industry based on their HRVOC monitoring data supports the assertion of an inequitable distribution of allowances. In addition, HECT program participants commented that certain HRVOC-emitting industry sectors were more adversely affected under the existing allocation methodology due to different HRVOC emission rates associated with production throughput. Facilities that use HRVOC as a raw material in the production of olefins have higher HRVOC emissions associated with their process as compared to other chemical manufactures and refineries. Therefore, under the existing HECT program, sites in the refinery and non-polymer

chemical sectors generally have the largest excess HRVOC allowances as compared to actual emissions. HECT program participants also commented on the reluctance of sites to trade due to the inclusion of emissions events in determining compliance with the program and the risk of trading away allowances that may be needed for compliance due to an emissions event later in the calendar-year control period. The commission will reallocate HRVOC allowances under the HECT program based on actual emissions data and implement significant program changes to encourage market activity through trading.

The existing HECT allocation methodology is a level of activity production-based calculation of the total amount of HRVOC, in pounds, produced or used by a process unit. This production-based methodology was developed prior to the implementation of monitoring requirements for applicable sources of HRVOC in Harris County. HECT program participants have been reporting actual monitored emissions data to the HECT program since 2006 as required under Chapter 115.

The adoption of this rulemaking creates a new allocation methodology based on actual emissions data with the goals of fairly and equitably distributing the compliance burden for HECT program participants, applying credit for controlling and reducing HRVOC emissions, and not rewarding or encouraging emissions from emissions events. Cap and trade programs aim to provide economic incentives for reducing emissions through controls by allowing excess allowances to be sold to other program participants. However, an allocation methodology based solely on actual emissions has the potential of penalizing sites that are well controlled and/or rewarding sites that are not well controlled. To allow for applicable sites to establish a representative baseline emission period, the rules allow sites to use their two highest consecutive calendar-year control periods out of the four years from 2006 - 2009.

Allocations will be distributed based on the new allocation methodology beginning with the 2011 calendar-year control period. Baseline emissions for the purpose of calculating the site allocations would be the average of the actual emissions for the two highest consecutive calendar-year control periods as submitted in the Form ECT-6H, Highly-Reactive Volatile Organic Compound Emissions Cap and Trade Baseline Emissions Certification Form. The deadline for ECT-6H submission is July 1, 2010.

The adopted rulemaking includes a provision for HECT participants that qualify to have the ability to request from the executive director the use of an alternate baseline period from 2004 and 2005 for the purpose of establishing baseline emissions. The owner or operator of a site must submit a request to the executive director by July 1, 2010, demonstrating that they were performing speciated testing and continuous flow monitoring of HRVOC emissions during the requested alternative baseline period. This provision is available for participants with substantial HRVOC reductions. In addition, the emission reductions must be permanent, voluntary, and quantifiable of an amount equal to or greater than 25% of the site's total annual HRVOC emissions and a site-wide reduction in HRVOC emissions subject to the HECT program of 25 tons or greater. The adopted rulemaking also provides an alternative to the use of an alternative baseline for qualifying sites that made early permitted HRVOC emissions reductions through the installation of flare gas recovery, vent gas recovery, or flare gas minimization control strategies. This alternative includes a provision in which quantified and monitored HRVOC emissions reductions from flare or vent gas recovery or flare minimization is added to the calculation of "Uncontrolled emissions" using the flare's average control efficiency. The average actual HRVOC emissions used for quantifying reductions from flare or vent gas recovery or flare minimization control strategies must be determined through the use of continuous flow rate monitoring and HRVOC speciation testing in order to be applied towards a site's "Uncontrolled emissions." The emissions reductions must have been made enforceable

under a permit action submitted to the executive director no later than April 1, 2010.

Additionally, qualifying sites not in operation or with HRVOC emissions that are not representative of permitted normal routine operation, due to an authorized modification that resulted in an HRVOC emission reduction during the baseline emissions period, may request from the executive director the use of any allowance stream acquired from facilities previously participating in the HECT program in lieu of reallocation until an alternative consecutive 24-month baseline emissions period can be established from normal permitted operation from 2010 - 2012. Sites approved by the executive director to use this alternative will receive an allocation in accordance with the adopted allocation methodology in the 2014 calendar-year control period.

Recent economic conditions have prompted concerns from industry that the 2006 - 2009 years adopted for establishing baseline emissions activity may not be representative of general production and emission rates due to the recent economic downturn. However, the reallocation methodology is based on the percentage of individual site emissions contributing to the total industry sector emissions and the fraction that each industry sector's emissions make up toward the total of all HRVOC emissions in the county. Therefore, the allocation of allowances for any individual site would not be significantly affected by general changes in economic conditions. An individual site's allocations would only be significantly altered if their uncontrolled emissions changed as a proportion of the total industry sector emissions. The adopted reallocation methodology is based on calculating "Uncontrolled emissions" or pre-controlled emissions for facilities using reported control efficiencies based on the specifications for flares in §115.725(d). Heaters, boilers, furnaces, thermal and catalytic oxidizers, and other combustion control devices combusting HRVOC streams would calculate "Uncontrolled emissions” using control efficiencies

up to 99.9% with actual monitored control efficiency data derived from stack testing. In the event that actual stack testing data is not available for combustion control devices other than flares, the commission will assign a default control efficiency of 99% due to their closed combustion design and higher flame temperatures. Dividing actual emissions by one minus the percent control efficiency calculates the amount of emissions before controls, therefore allowing sites to receive credit for these reductions in the allocation. HRVOC emissions from other facilities subject to Chapter 115, Subchapter H, Divisions 1 and 2, and the HECT program, such as vents and cooling towers, will be included in the equation for calculating uncontrolled emissions, however because they do not have combustion control efficiencies, uncontrolled emissions from these facility types will be equal to their actual emissions. Only HRVOC emissions from routine, permitted, normal activity will be counted as actual emissions in the calculation of uncontrolled emissions. Emissions from emission events subject to §101.201 will not be included in the determination of uncontrolled emissions and will not be applied towards site allocations. As discussed elsewhere in this preamble, the adopted rules contain a provision for applying credit towards a site's uncontrolled emissions for quantified and monitored HRVOC emission reductions from flare minimization programs and flare and vent gas recovery systems. In addition, sites that have purchased allowance streams under the existing HECT allocation will be allowed to receive allowance credit for an amount equal to the difference between each site's allowance stream plus its current existing allocation and the amount of its two highest average actual emission years during the baseline period. The amount of the difference may be applied to a site's "Uncontrolled emissions" as actual emissions for the calculation of allowances. Sites with emissions from their two highest average actual emission years during the baseline period that are greater than their existing allocation plus any acquired allowance stream will receive an allocation based on their "Uncontrolled emissions" without the benefit of the allowance stream.

The adopted rules define four industry-type sector pools to account for different HRVOC emission rates associated with the processes of the industry sectors with HRVOC emissions in Harris County. The industry sector definition reflects those used in existing regulations and are readily defined by process type and product. The existing application of Best Available Control Technology (BACT) and other federal standards within industry sectors would assure a comparable cost of control within the industry sector, and the division of the cap into industry sector share will therefore reflect a more equitable allocation methodology. In addition, the amount of HRVOC product that is recycled and recovered for sites within the same industry sector should be comparable due to market forces and competition within the sector. Sites within common industry sectors with HRVOC as product share the economic incentive to reduce emissions using similar recovery techniques.

The four industry sectors are petroleum refining, nonpolymer chemical producers, polymer producers, and storage/loading/other. The reallocation methodology then calculates each sector's share of the available cap by dividing the total amount of actual average emissions over the emissions baseline period for the sector by the total available cap. The resulting fraction expressed as a percentage becomes the industry sector share. Applying this sector share to the individual site allocation equation creates a methodology in which only facilities within the individual industry sectors compete with one another for allowances. Sites containing facilities from two or more industry sectors will be included in the industry sector for which the majority of their baseline activity is generated, with emissions and allocations for the industry sector and site calculated accordingly.

The existing rules' "opt-in" clause specifies that any site wishing to opt-in must have requested to participate by April 30, 2005. The adopted rule revision will not provide an additional opt-in provision.

All sites with an HRVOC PTE that is greater than ten tons are required to participate in the HECT program. Sites with a calculated allocation of less than five tons based on the revised allocation methodology will be eligible to receive a minimum allocation of five tons. Sites with a calculated allocation greater than or equal to five but less than ten tons based on the revised allocation methodology will be eligible to receive a minimum allocation of ten tons. Sites receiving a minimum allocation under the adopted rulemaking will not have their allocations "stepped down" and will continue to receive the minimum allocation.

According to the reallocation principals above, including a methodology based on average actual emissions during the emissions baseline period and calculating "Uncontrolled emissions" or pre-controlled emissions using reported control efficiencies, the commission adopts a revised reallocation methodology for HRVOC allowances beginning with the 2011 calendar-year control period. The total modeled (future base) cap on HRVOC emissions in Harris County is currently 3,633.1 tons. After deducting the required 5% EPA environmental contribution of 181.65 tons, the total HRVOC cap is 3,451.5 tons. The first 10% cap stepdown will occur at the beginning of the 2014 calendar-year control period. The total amount of HRVOC allowances available in 2014 will therefore be 3,106.3 tons. At the request of stakeholders, the proposed rule initially included an emissions event set-aside pool, however in response to comment, the 250-ton set-aside has been returned to the available cap for allocation.

The adopted rulemaking will then continue to reduce the cap to a total of 25% in annual 5% reductions from 2015 to 2017. Therefore, the final available cap beginning with the 2017 calendar-year control period will be the 2,588.6-ton value representing the amount modeled in the 2018 future case 25% HECT Cap Reduction sensitivity run. The allocation methodology for each calendar-year control period will be

identical to the adopted methodology for 2011.

Sites that have made investments on HRVOC stream trades may receive credit for the allowance stream as actual emissions in the calculation of "Uncontrolled emissions." However, in order to prevent the double counting of the stream and the emissions during the baseline emissions period that the stream allowed them to achieve, the "Uncontrolled emissions" for sites owning a stream of allowances will be considered the greater of their actual emissions during the baseline emissions period or the amount of the original allocation plus the allowance stream. Therefore, if a site's highest emissions during the baseline period were less than its original allocation plus the allowance stream, the difference would be applied toward its "Uncontrolled emissions." Although some qualifying sites may receive credit for acquired allowance streams after reallocation, HECT allowances are not a property right and site allocations are maintained at the executive director's discretion under §101.394(h).

SECTION BY SECTION DISCUSSION

In addition to the adopted amendments to §§101.1, 101.390 - 101.394, 101.396, and 101.399 - 101.401 discussed elsewhere in this preamble, the commission is also making various stylistic non-substantive changes to update rule language to current *Texas Register* style and format requirements, as well as establish more consistency in the rules. Such changes include appropriate and consistent use of acronyms, punctuation, section references, and certain terms, such as "must" and "shall." These changes are non-substantive and generally are not specifically discussed in this preamble.

§101.1, Definitions

Adopted changes to §101.1 amend the definition of reportable quantity for 1,1,1,2,3,3,3-

heptafluoropropane (HFC-227ea) in §101.1(88)(A)(i)(III)(-y-). The commission adopted a reportable quantity of 5,000 pounds for HFC-227ea in 2005 and the adopted rule was published in the December 30, 2005, issue of the *Texas Register* (30 TexReg 8886). However, the reportable quantity value of 5,000 pounds was inadvertently omitted in the version filed with the Secretary of State's Office. The commission is only adopting the corrected omission in §101.1(88)(A)(i)(III)(-y-) and no other changes to the definition of reportable quantity will be addressed in this rulemaking. Additionally, the commission adopts the updated definition of volatile organic compound in §101.1(115) to be consistent with the current definition in the 40 Code of Federal Regulations, §57.100(s) amended on January 21, 2009 (74 Federal Register 3441).

§101.390, Definitions

The commission adopts revised §101.390(4) and adds §101.390(9) to include the definitions of "Baseline emissions period," "Industry sectors," and "Uncontrolled emissions." "Baseline emissions period" is defined as consecutive calendar-year control periods designated by the site for the purpose of establishing baseline emissions for the allocation of allowances. In response to comment, "Uncontrolled emissions" is defined as taking the total emissions from each applicable facility calculated as pre-controlled using the applicable control efficiency for the purpose of determining site allocations under §101.394(a)(1)(B). In response to comment, the definition of "Industry sectors" for the purpose of generating the industry sector share for the allocation of HRVOC allowances is included in the adopted rules for clarity. The commission also adopts renumbering the subsequent paragraphs of §101.390.

§101.391, Applicability

The commission adopts deleting the term "covered" and replacing it with "applicable" in describing sites

and facilities subject to the rulemaking for rule consistency and clarity.

§101.392, Exemptions

The commission adopts deleting the term "covered" and replacing it with "applicable" in describing sites and facilities subject to the rulemaking for consistency and clarity. In response to comment, the commission adopts language clarifying the applicability of subsection (b) to only Harris County.

§101.393, General Provisions

The commission adopts deleting the term "covered" and replacing it with "applicable" in describing sites and facilities subject to the rulemaking for rule consistency and clarity.

§101.394, Allocation of Allowances

In response to comment, the commission adopts the deletion of the reference to January 1, 2007, from §101.394(a). The commission also adopts the removal of the figure located at §101.394(a)(1) and adding a new figure to be located at §101.394(a)(1)(A). In addition, the commission adopts §101.394(a)(1)(B) to revise the reallocation methodology for allowances beginning in the calendar-year control period 2011. The adopted figure located at §101.394(a)(1)(B) provides the equation for calculating the new allocation methodology and for a stepped down reduction in the total cap of allowances. The first reduction is a 10% reduction of the total cap in calendar-year control period 2014, followed by successive 5% reductions per calendar-year control period until the 25% total reduction in the cap is reached in calendar-year control period 2017.

In response to comment, the commission also adopts the addition of §101.394(a)(1)(C) to allow

qualifying sites not in operation or with HRVOC emissions that are not representative of permitted normal routine operation due to an authorized modification that resulted in an HRVOC emission reduction during the baseline emissions period to request from the executive director the use of any allowance stream acquired from facilities previously participating in the HECT program in lieu of reallocation until the alternate baseline emissions are established where the site has made HRVOC reductions. The owner or operator of applicable qualifying sites should note that beginning with the 2014 calendar-year control period, all sites will receive an allocation in accordance with the proposed methodology under §101.394(a)(1)(B).

The commission also adopts the addition of §101.394(a)(1)(D) for HECT participants that implemented permanent, voluntary, and quantifiable HRVOC emission reductions and monitoring programs before the beginning of the 2006 calendar-year control period. The adopted subparagraph (D) provides the ability to request from the executive director the use of an alternative baseline period from 2004 and 2005 for the purpose of establishing baseline emissions. To qualify for this provision, owners or operators of sites must be able to demonstrate to the executive director that they were performing speciated testing and continuous flow rate monitoring of HRVOC emissions during the requested alternative baseline period. In addition, the emission reductions must be permanent, voluntary, and quantifiable of an amount equal to or greater than 25 tons resulting in a site-wide reduction in HRVOC emissions of at least 25%. The emissions reductions must also have been made enforceable under an action submitted to the executive director no later than April 1, 2010. This provision will ensure that sites that made early reductions before the adopted baseline emissions period of 2006 - 2009 would receive adequate credit for those early reductions.

In response to comment, the commission adopts §101.394(a)(3) detailing the calculation methodology for uncontrolled emissions for various applicable facility types.

The commission adopts the deletion of §101.394(c) because it is no longer applicable. The existing §101.394(d) will be relettered as subsection (c). Adopted §101.394(d) will ensure that sites with a calculated allocation of less than five tons based on the revised allocation methodologies will be eligible to receive a minimum allocation of five tons. Sites to be allocated greater than or equal to five tons but less than ten tons of allowances would be eligible to receive a minimum allocation of ten tons of allowances per calendar-year control period.

§101.396, Allowance Deductions

In response to comment, the commission adopts the deletion of proposed subsections (c) and (d) in order to remove the emissions event set-aside and the application for the use of the emissions event set-aside allowances. The commission also adopts non-substantive changes for clarity and consistency. The commission also adopts relettering subsequent subsections in §101.396.

§101.399, Allowance Banking and Trading

In response to comment, the commission adds clarifying language to subsection (a). The commission adopts amended §101.399(i)(5) to delete the reference to §101.394(c) because it is no longer applicable. In addition, the commission adopts §101.399(e) to prohibit the transfer of allowances allocated to sites under §101.394(a)(1)(C) that have yet to establish a baseline emissions period. Therefore, sites allowed to maintain an acquired allowance stream derived from the original allocation methodology under §101.394(a)(1)(A) may not benefit from the transfer of these allowances. The commission also adopts

relettering the remaining subsections in §101.399.

§101.400, Reporting

The commission adopts §101.400(a)(4) to require sites to report the total amount and respective dates of HRVOC emissions from emissions events.

§101.401, Level of Activity Certification

The commission adopts §101.401(f) and (g). Adopted §101.401(f) will require the Form ECT-6H, Highly-Reactive Volatile Organic Compound Emissions Cap and Trade Baseline Emissions Certification Form, to be submitted no later than July 1, 2010. Adopted §101.401(g) will require sites to select two consecutive calendar-year control periods to establish a baseline emissions period.

FINAL REGULATORY IMPACT ANALYSIS DETERMINATION

The commission reviewed this adopted rulemaking in light of the regulatory impact analysis requirements of Texas Government Code, §2001.0225, and determined that the adopted 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 amendments to Chapter 101 and revisions to the SIP would reduce the total cap amount of HRVOC allowances for the HECT program by 25% and revise the allocation methodology for allowances for participants of the HECT program. The HECT program was adopted as a control measure for the

HGB one-hour attainment demonstration SIP revision, and it is currently only applicable in Harris County. Photochemical modeling analysis demonstrates that a 25% reduction of the cap on the total Harris County HRVOC allocation would contribute to attainment of the 1997 eight-hour ozone NAAQS by reducing future ozone design values at all HGB monitors.

Following the initial allocation of allowances, stakeholder comments indicated that the allocation was not equitably distributed. Information from the first three years of monitoring data supports the assertion of an inequitable distribution of allowances. The adopted revisions are necessary to implement a more equitable allocation methodology, while contributing to HGB's attainment of the 1997 eight-hour ozone NAAQS as expeditiously as practicable. The adopted change in allocation methodology will result in allowance reductions for certain facilities, and it is possible facilities that have made significant investments on future HRVOC stream trades may see the value of these investments reduced or nullified. Facilities that have their HRVOC allowances reduced, either through the reallocation or reduction of the total HRVOC cap, may incur costs from the installation of additional controls or having to purchase allowances from other sources if necessary to comply with their lower allowances. If the cap is reduced, the price of HRVOC allowances available in the market may increase.

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. Specifically, the proposed amendments will result in a decrease in the HECT program cap, and will adjust the allocation methodology for allowances under the program. The HECT program was adopted as a control measure for the HGB one-hour attainment demonstration SIP, and the proposed changes to the program will contribute to HGB's attainment of the 1997 eight-hour ozone NAAQS as expeditiously as practicable. The rulemaking does not exceed an express requirement of federal or state law or a requirement of a delegation agreement, and was not developed solely under the general powers of the agency, but was specifically developed under federal law and authorized under the Texas Health and Safety Code (THSC).

The rulemaking implements requirements of 42 United States Code (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 Federal Clean Air Act (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 would be brought into attainment on schedule. The adopted amendments will help the HBG area attain the 1997 eight-hour ozone NAAQS as expeditiously as practicable.

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 would have a material adverse impact and would 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 would 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 previously 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 would 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 would 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, §7511(a), requires states to submit ozone attainment demonstration SIPs for ozone nonattainment areas, such as the HGB eight-hour ozone nonattainment area. As discussed previously in this preamble, the adopted amendments will help the HBG area attain the 1997 eight-hour ozone NAAQS as expeditiously as practicable.

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 un-amended. 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 THSC, Chapter 382, Texas Clean Air Act (TCAA), and the Texas Water Code that are cited in the STATUTORY AUTHORITY section of this rulemaking, including THSC, §§382.002, 382.011, 382.012, 382.016, and 382.017. 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.

The commission invited public comment regarding the draft regulatory impact analysis determination during the public comment period. No comments were received on the draft regulatory impact analysis determination.

TAKINGS IMPACT ASSESSMENT

The commission completed a takings impact assessment for this rulemaking action under Texas

Government Code, §2007.043. The adopted amendments would reduce the total cap amount of HRVOC allowances for the HECT program by 25% and revise the allocation methodology for allowances for participants of the HECT program. Photochemical modeling analysis demonstrates that a 25% reduction of the cap on the total Harris County HRVOC allocation would contribute to attainment of the 1997 eight-hour ozone NAAQS by reducing future ozone design values at all HGB monitors. The adopted changes to the HECT program will result in allowance reductions for certain facilities and it is possible facilities that have made significant investments on future HRVOC stream trades may see the value of these investments reduced or nullified. Facilities that have their HRVOC allowances reduced, either through the reallocation or reducing the total HRVOC cap, may incur costs from the installation of additional controls or having to purchase allowances from other sources if necessary to comply with their lower allowances. If the cap is reduced, the price of HRVOC allowances available in the market may increase. However, the allowances that will be affected by these rules are not property rights (§101.393(e)), and therefore reductions or changes in the allowances do not constitute a taking. Consequently, this rulemaking action does not meet the definition of a takings under Texas Government Code, §2007.002(5).

Additionally, 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 adopted changes to the HECT program within the HGB area that would be implemented by these adopted rules were developed to advance attainment of the 1997 eight-hour ozone NAAQS in the HGB ozone nonattainment area. 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 adopted

rulemaking action is to meet the air quality standards established under federal law as NAAQS. However, this rulemaking is only one step among many necessary for attaining the ozone NAAQS.

CONSISTENCY WITH THE COASTAL MANAGEMENT PROGRAM

The commission reviewed the adopted rulemaking and found that the adoption is subject to the Texas Coastal Management Program (CMP) in accordance with the Coastal Coordination Act, Texas Natural Resources Code, §§33.201 *et seq.*, and therefore, must be consistent with all applicable CMP goals and policies. The commission conducted a consistency determination for the adopted rules in accordance with Coastal Coordination Act Implementation Rules, 31 TAC §505.22 and found the adopted rulemaking is consistent with the applicable CMP goals and policies. CMP goals applicable to the adopted amendments are the goals to protect, preserve, restore, and enhance the diversity, quality, quantity, functions, and values of coastal natural resource areas (31 TAC §501.12(l)). This rulemaking will advance these goals through updating a definition, reallocating allowances, and lowering the HRVOC cap. No new sources of air contaminants will be authorized and the revisions will maintain the same level of emissions control as previous rules. CMP policies applicable to the proposed amendments are the policy that the commission's rules comply with federal regulations in 40 Code of Federal Regulations, to protect and enhance air quality in the coastal areas (31 TAC §501.32). Promulgation and enforcement of these rules will not violate or exceed any standards identified in the applicable CMP goals and policies because the proposed rules are consistent with these CMP goals and policies because these rules do not create or have a direct or significant adverse effect on any coastal natural resource areas. The commission invited public comment regarding the consistency with the coastal management program during the public comment period. No comments were received regarding consistency with the CMP.

EFFECT ON SITES SUBJECT TO THE FEDERAL OPERATING PERMITS PROGRAM

Chapter 101, Subchapter H is an applicable requirement under 30 TAC Chapter 122, Federal Operating Permits Program. Owners or operators subject to the Federal Operating Permits Program must, consistent with the revision process in Chapter 122, upon the effective date of the rulemaking, revise their operating permit to include the new Chapter 101, Subchapter H requirements.

PUBLIC COMMENT

Public hearings for the proposed SIP revision and associated rulemakings were held on October 28, 2009, at 2:00 p.m. and 6:00 p.m., at the Houston-Galveston Area Council (H-GAC) offices in Houston, Texas; and on October 29, 2009, at 3:00 p.m., at the Texas Commission on Environmental Quality (TCEQ) headquarters in Austin, Texas. Question and answer sessions were held 30 minutes prior to the hearings. Neither the October 28, 2009, hearing scheduled for 6:00 p.m., nor the October 29, 2009, hearing was officially opened because no party indicated a desire to provide comment. Five persons presented oral comments concerning this SIP revision at the public hearing held at 2:00 p.m. on October 28, 2009, in Houston. The public comment period opened on October 9, 2009, and closed on November 9, 2009. Written comments were accepted via mail, fax, and through the eComments system. There were 26 written comments received. Oral comments were provided by Kaneka Texas Corporation (Kaneka), Bigler, L.P. (Bigler), Environmental Defense Fund (EDF), and Galveston-Houston Association for Smog Prevention (GHASP). Written comments regarding the HECT rulemaking and Reasonably Available Control Measure (RACM) were provided by the EPA, EDF, GHASP, and Kaneka. Written comments regarding the HECT rulemaking and SIP revision were provided by BCCA Appeal Group (BCCA), 8-Hour Ozone SIP Coalition (Coaltion), Texas Oil and Gas Association (TxOGA), and Texas Association of Business (TAB).

Written comments regarding the HECT rulemaking were provided by Texas Chemical Council (TCC), LyondellBasell (Lyondell), Texas Petrochemicals (TPC), Coalition of Manufacturers for Air Quality (COMAQ), DuPont Packaging and Industrial Polymers (DuPont), Albemarle Corporation (Albemarle), Sunoco Chemicals Inc. (Sunoco), INEOS Olefin & Polymers USA (INEOS), PetroLogistics/PL Propylene L.L.C. (PL Propylene), Coalition, BCCA, TxOGA, TAB, Total Petrochemicals (Total), Kaneka, Bigler, AmericanAcryl, Arkema Inc. (Arkema), EPA, and the Houston Regional Group and the Lone Star Chapter of the Sierra Club (HSC). Kids for Clean Air, the Sustainable Energy and Economic Development (SEED) Coalition, Clean Air Institute of Texas, and one individual expressed support for any comments submitted by EDF and HSC.

RESPONSE TO COMMENTS

HECT RULE, HGB 1997 EIGHT-HOUR OZONE ATTAINMENT DEMONSTRATION SIP REVISION, AND RACM COMMENTS

BCCA and the Coalition commented that the reallocation of HRVOC allowances in the HECT program rulemaking included in the proposed attainment demonstration SIP revision is not required for purposes of providing ozone precursor reductions for the 1997 eight-hour ozone attainment demonstration HGB SIP revision package. TxOGA and TAB commented that the proposed attainment demonstration SIP revision does not rely on the reallocation rulemaking. PL Propylene commented that the reallocation of HECT allowances is fair and necessary to protect the integrity of the SIP.

The commission agrees with BCCA, the Coalition, TxOGA, and TAB that the reallocation of HECT allowances is not required to model attainment of the 1997 eight-hour attainment demonstration

HGB SIP revision. The reallocation of HRVOC allowances does not in itself include a mandatory reduction in the HRVOC cap in Harris County. However, following the initial allocation of allowances, TCEQ received comments that the allocation was not equitably distributed. Information from the first two years of monitoring data supports the assertion of an inequitable distribution of allowances. A more equitable allocation of allowances will stimulate the market, creating incentives for further reductions by industry regulated under the program. The commission therefore agrees with PL Propylene that revisions to the rule are anticipated to result in a more equitable approach. Because the change in allowance allocation methodology will create incentives for further reductions, it will contribute to the area's attainment of the NAAQS as expeditiously as practicable. No changes were made in response to this comment.

EPA commented that the proposed reduction and reallocation of the Harris County HRVOC cap does not require HRVOC levels to be reduced below currently reported levels. EPA stated that the current 25% reduction in the HECT cap would still be higher than reported emissions and would allow for growth and allowances for upset conditions. EPA added that the 25% cap reduction would allow HRVOC emission increases at HECT applicable facilities compared to the highest annual actual HECT emissions. EPA suggested that the commission consider as part of the RACM analysis whether reductions in actual HRVOC emissions could accelerate attainment.

EDF and GHASP stated that they see no reason to delay additional cap reductions beyond the proposed 25% at this time. The commenters stated that to ensure that the area is meeting the FCAA requirement to implement all RACM as expeditiously as practicable, the commission must lower the cap to a meaningful level that will produce actual emissions reductions in the near term, or provide a logical, reasoned

explanation as to why doing so it not feasible. EDF and GHASP stated that since this HECT cap reduction is based on the fact that emissions from capped sources during the first two years of the program only averaged approximately 56% of the total allocated allowances, the commission should not claim that a 25% reduction in the cap would result in any actual emissions reductions. They added that since the reduction is only in allowable emissions there will not be any improvement in actual air quality. EDF and GHASP commented that a HECT cap reduction closer to 50% is necessary in order to achieve any actual reductions and air quality improvement.

The commission agrees that the HECT reallocation does not require mandatory reductions of HRVOC emissions from program participants. The purpose of the reallocation is to achieve a more equitable distribution of allowances based on actual monitoring data. A more equitable allocation of allowances will stimulate the market, creating incentives for further reductions by industry regulated under the program.

The commission acknowledges that HRVOC monitoring data reported for 2006 - 2008 indicates that the total actual emissions from sources in the HECT program have been approximately 50% of the total current HRVOC cap. The HRVOC cap and trade rules require emissions from scheduled maintenance, startup, and shutdown activities and emissions events be included in determining compliance with the HECT program. Therefore, a buffer in the cap is needed to account for the variability of HRVOC emissions associated with these activities.

Photochemical modeling analysis demonstrates an average ozone decrease of 0.13 ppb for the three monitoring sites with 2018 projected eight-hour ozone design values greater than the 1997 eight-

hour ozone NAAQS, Deer Park, Bayland Park, and Wallisville. The Deer Park monitor's design value was the highest in the HECT sensitivity modeling, which showed a decrease in the Deer Park monitor design value from 86.49 ppb to 86.36 ppb ozone. The 25% reduction in the Harris County HRVOC cap allows for a sufficient buffer to protect against the inherent variability in HRVOC emissions while modeling an average 2018 future cap design value within EPA's range for weight of evidence discussion.

During this period, HECT regulated sources have experienced the same economic downturn that other industrial sectors across the country have experienced resulting in lower than normal emissions. The commission contends that in a better economic environment HECT sources operating at normal production levels would have average emissions at levels closer to the current HRVOC cap. No changes were made in response to this comment.

EPA requested that the commission explain why the reductions cannot be implemented sooner than the proposed 2015 - 2017 time frame. EDF and GHASP expressed support for reducing the HECT cap for Harris County in stepwise fashion by 10% in 2014, followed by annual 5% reductions through 2017.

The adopted rule revisions will reallocate the program in 2011 and implement an initial 10% reduction of the existing available HECT cap of 3,451.5 tons beginning with the 2014 calendar-year control period. The available cap will then be reduced in 5% increments at the start of each calendar-year control period for 2015, 2016, and 2017. The full 25% cap reduction will have been in effect for one full calendar-year control period by January 1, 2018. While historical data demonstrate an overall surplus in the HRVOC cap, many sources were operating near their

individual cap limits and thus, may see a significant change in their HRVOC emissions. The cap reduction and reallocation may require some individual sites to install additional controls or otherwise modify their operations to reduce their HRVOC emissions. The step-down approach allows companies time to install controls if necessary. No changes were made in response to this comment.

Kaneka cited a portion of the RACM analysis in Appendix E of the 1997 eight-hour ozone attainment demonstration HGB SIP revision proposed on September 23, 2009, describing the practicality issues identified with revising NO_X allowances under the MECT program because allowance streams have been traded and relied upon for compliance with the program. Kaneka concluded that if it is impractical to nullify MECT trades, then it is also impractical to nullify HECT trades that have also been relied upon for compliance with the program.

The commission maintains that reducing the Harris County HECT program cap is RACM. The commission acknowledges that practicality is one of the EPA's evaluation criterion considered during the state's RACM analysis. In the portion of the RACM analysis referenced by the commenter, the commission also acknowledges practicality issues associated with revising MECT program NO_X allocations. However, as discussed at length in Appendix E, 1997 eight-hour ozone attainment demonstration HGB SIP revision, Section 4.2.1: Mass Emission Cap and Trade (MECT) Program and 30 TAC Chapter 117 NO_X Rules RACM of this 1997 eight-hour ozone attainment demonstration HGB SIP revision, the commission concluded that further NO_X reductions through the MECT program did not constitute RACM on the basis of economic and technological feasibility, rather than practicality. Therefore, the commission respectfully disagrees with the

commenter's conclusion that revising the HECT program should not be considered RACM because it is impractical.

The commission agrees that the nullification issue should be addressed, and the rules have been revised to allow sites that purchased allowance streams the potential to apply allowances from the stream to the calculation of "Uncontrolled emissions" as actual emissions. Revised §101.394(a)(1) allows sites holding stream trades to calculate their "Uncontrolled emissions" as the greater of their actual average emissions of their two highest emission years from 2006 - 2009 or the sum of their original existing HECT HRVOC allowance and the amount of the allowance stream in tons. In the event that a site's actual two highest year emissions is less than the sum of its original existing HECT HRVOC allowance and the amount of the allowance stream in tons, the difference shall be added to the "Uncontrolled emissions" as actual emissions. The purchase of an allowance stream also allowed some sites to operate with higher emissions during the baseline emissions period. Sites that took advantage of allowance streams would therefore realize the benefit of the higher emissions through the uncontrolled emissions-based reallocation methodology.

HECT RULE COMMENTS

25% Cap Reduction

TCC, Lyondell, TPC, the Coalition, BCCA, TxOGA, and TAB expressed support for the 25% reduction in the Harris County HRVOC Cap. TCC and TPC stated their agreement with the "stepdown" approach, beginning with a 10% reduction in the cap in 2014, with 5% annual reductions to reach a total 25% cap reduction in 2017. COMAQ stated their strong support for the "stepdown" approach outlined in the definition of "AC" located in the figure in §101.394(a)(1)(B) and believes that it is critical to the

rulemaking.

The commission appreciates the comments.

Reallocation Methodology

Lyondell and TPC expressed their opposition to the HECT program uncontrolled emissions-based reallocation methodology and their support for the alternative flat percent allocation methodology discussed in the rule proposal preamble. TPC stated that the proposed uncontrolled emissions-based reallocation methodology does not reward well-controlled facilities and may actually have the opposite effect of providing insufficient allowances for well-controlled facilities, such as TPC. Lyondell stated that some well-controlled facilities receive some of the lowest estimated allocations while some of the least controlled facilities appear to receive the largest allocations and well-controlled facilities that are under-allocated have no option than to purchase allowances, thereby potentially affecting the viability of the company. TPC commented that its Houston Plant is better controlled than most or all other HECT participating facilities as a result of a Voluntary Emissions Reduction Agreement (VERA) entered into with the commission in 2005. This agreement resulted in HRVOC emissions reductions of more than 120 tpy when comparing 2002 to 2008 HECT emissions. TPC achieved these emissions reductions through the implementation of flare gas recovery, advanced technology for fence-line monitoring, and other operational changes. TPC stated that despite these reductions, the initial estimated potential HECT allocation posted by the agency awarded TPC with an insufficient allocation to cover its high 2007/2008 HRVOC emissions. TPC further commented that although the flat allocation method does not penalize poorly controlled facilities, the proposed uncontrolled emissions-based reallocation methodology does not reward well-controlled facilities. TPC stated that the proposed methodology falls short because it does not

reward flare gas recovery, one of the most effective HRVOC emissions controls and does not consider actual control efficiencies where this information is available. TPC recommended that the commission correct the proposed allocation methodology by accounting for flare gas recovery, addressing control mechanisms on vent gas streams, and using actual measured control efficiencies where available. Lyondell stated that it strongly supports the flat percent reallocation methodology as it is the most equitable for all participants, is based on actual data, and is a much simpler and transparent methodology. Lyondell commented that the estimated allocations using the proposed methodology demonstrate that significantly more sites will be under-allocated as compared to their historic highest emissions from 2007 and 2008 than the current allocation, and up to 11 sites may have allocations of more than 200% of their highest emissions. Lyondell also stated that approximately 20% of HECT sites are owned and operated by Lyondell; 30% of the highest emissions from 2007 and 2008 are from Lyondell sites, but under the initial estimated allocation derived from the proposed methodology less than 25% of the allocations go to Lyondell sites. In addition, Lyondell stated that sites that are under-allocated will be further disadvantaged when the HECT cap is further reduced during the stepdown, while over-allocated sites will benefit from an arbitrary business advantage. Albemarle, COMAQ, DuPont, INEOS, PL Propylene, and Sunoco expressed their support for the proposed uncontrolled emissions-based reallocation methodology and their opposition to the flat percent reallocation. Total stated that although they believe the original allocation was fair and equitable, it supports the concept of an uncontrolled emissions-based reallocation methodology. COMAQ stated that it has maintained a consistent position that the existing HRVOC allowance allocation methodology is inequitable and is pleased that the commission has proposed an allocation methodology that will result in the equitable allocation of allowances. COMAQ and Albemarle commented that for a fair and equitable HECT program, it is critical that the reallocation methodology recognize demonstrated controls through the rewarding of high levels of control and not rewarding low

levels of control and that the program must be reallocated in the most immediate fashion possible.

The proposed alternative flat percent allocation methodology discussed in the proposal preamble, by allocating allowances as a direct percentage of each site's highest actual emissions, ignores reductions from controls, such as flares, heaters, boilers, furnaces, and thermal and catalytic oxidizers, and rewards poorly controlled facilities with high actual emissions while penalizing well-controlled facilities. This results in an inherently inequitable allocation. The adopted uncontrolled emissions based reallocation provides credit for controls through the use of control efficiencies in the calculation of uncontrolled emissions. In order to account for reductions from flare and vent gas recovery and flare minimization programs, the adopted reallocation methodology will allow qualifying sites that achieved early reductions through the implementation of these controls to utilize either an alternative baseline emissions period reflecting these emissions or apply the quantified reductions toward the calculation of the site's uncontrolled emissions. In addition, the elimination of the opt-in provision in combination with the adoption of a two-tier minimum allocation of five and ten tons addresses overallocation to sites with actual emissions substantially below ten tons. The uncontrolled emissions based allocation methodology, with the addition of these special provisions, will therefore result in an equitable, accurate, representative, and comprehensive allocation of the Harris County HRVOC cap.

Coalition and BCCA do not support reallocation as it would penalize facilities that made early and substantial HRVOC emissions reductions and the reallocation is not required for the 1997 eight-hour attainment demonstration HGB SIP revision.

The commission respectfully disagrees with the comment. As discussed previously in this response to comments, the commission has adopted an alternative baseline provision and flare and vent gas minimization credits to account for early substantial emissions reductions.

TxOGA and TAB stated their opposition to reallocation at this time. TxOGA stated that it believes additional data is necessary before reallocation because all sites did not have reliable monitoring and 2007 and 2008 control periods reflect active hurricane seasons and a slower economy. TxOGA stated that well-controlled facilities need to be defined before an equitable allocation can be implemented.

The commission respectfully disagrees with the comment. HRVOC stream monitoring under Chapter 115 was required by December 31, 2005. As discussed elsewhere in this preamble, the reallocation methodology is based on a comparison of each individual site's HRVOC emissions relative to the total HRVOC emissions from all sites within the same industry sector. Therefore, the commission contends that the allocation of allowances for any individual site would not be significantly affected by general changes in economic conditions. An individual site's allocations would only be changed if their uncontrolled emissions significantly increased as a proportion of the total industry sector emissions. No changes were made in response to this comment.

TCC expressed its support for the definition of "Baseline emissions period" under §101.390(4).

The commission appreciates the comment.

COMAQ requested that the commission revise §101.394(a) and (a)(1)(A) relating to the allocation

methodology such that the January 1, 2007, allowance deposit date be clarified to only refer to the calendar-year control periods 2007 - 2010.

The commission agrees with the comment. As the allowance deposit date for the existing program has passed and will not be revised, the reference to January 1, 2007, has been deleted.

Lyondell commented that sites included in the chemical sector include a mix of processes that are difficult to compare with one another and therefore, the commission should reallocate the program without using industry sectors. TPC commented that the chemical sector includes widely varying operations with varying HRVOC uses and throughput. COMAQ supports including a definition of "Industry sector" in the HECT definitions. COMAQ and Albemarle commented that the use of industry sectors is important in the reallocation methodology because sites in the same industry sector use similar HRVOC recovery and recycle activities that significantly affect HRVOC emissions, and prevent sites with significantly different industrial processes from competing for the same allowance pools.

While the commission acknowledges that there will be some varying of operations within industry sectors, it contends that the use of industry sectors is important to establishing an equitable allocation. The existing application of BACT and other federal standards within industry sectors would assure a comparable cost of control within the industry sector, and the division of the cap into industry sector share would therefore reflect a more equitable allocation methodology. In addition, the amount of HRVOC product that is recycled and recovered for sites within the same industry sector should be comparable due to market forces and competition within the sector. Sites within industry sectors that produce HRVOC as product share the economic incentive to reduce

emissions using similar recovery techniques. The rules have been revised to include definitions of the industry sectors under §101.390.

COMAQ supported revising the definition of "Uncontrolled emissions" to clarify the term "average percent control efficiency" for flares.

The commission appreciates the comment. Revisions to the definition of "Uncontrolled emissions" have been made in response to comment and are discussed elsewhere in this preamble.

Lyondell and TPC expressed their concern regarding the proposed use of flare control efficiencies of 99% for ethylene and propylene while allowing only 98% for all other HRVOCs for the determination of "Uncontrolled emissions." Lyondell and TPC asserted that this would result in an inadequate allocation for sites with high butadiene and butane emissions as compared to sites emitting primarily ethylene and propylene.

The commission respectfully disagrees with the comment. The control efficiencies specified in the rules for the determination of "Uncontrolled emissions" from flares are consistent with the Chapter 115 specifications for the reporting of HRVOC emissions from flares for sites subject to the HECT program. Allowing sites to use control efficiencies different from those specified for calculating actual emissions in Chapter 115 would result in an allocation methodology that is fundamentally inconsistent with HECT emissions reporting. HECT allocations under the rule are to be used to cover actual emissions reported in accordance with Chapter 115 requirements, and therefore must be calculated using consistent methodologies. No changes were made in response to this comment.

Albemarle, TCC, and TPC commented that only HRVOC emissions from normal, routine, and permitted operations be attributable to the calculation of "Uncontrolled emissions," and all emissions from emissions events subject to the requirements of §101.201 are disallowed from being used for the determination of HECT allowances.

The commission agrees and §101.394(a)(3) has been revised in response to this comment. Only emissions from routine permitted operations shall be applied to the calculation of "Uncontrolled emissions" and all emission subject to §101.201 will not be applied for the determination of allocations.

Alternative Baseline Provisions and Early/Additional Reduction Credit

Lyondell and TCC strongly recommended that the commission expand the definition of "Uncontrolled emissions" to include the pre-control emissions that are routed to emission control devices, such as thermal oxidizers and other generally recognized HRVOC emissions control devices. TPC and TCC also recommended that the rule allow the use of actual control efficiencies up to 99.9% when demonstrated and recorded during monitored stack performance testing. Total recommended the determination of uncontrolled emissions should allow for the actual control efficiencies derived from performance or stack testing or from the device manufacturer's specifications. Total stated that allowing for control efficiencies greater than 99% when actual testing data is available would provide consistency between what sites report to the HECT program and the allocation methodology and will not penalize sites that have invested in over-control of HRVOC emissions. Albemarle expressed their support for the provision in §101.390(9) applying control efficiencies for heaters, boilers, and furnaces as HRVOC control devices in the

definition of uncontrolled emissions and recommends allowing control efficiencies for thermal oxidizers as well.

The commission agrees with the commenters and has revised §101.394(a)(3) to allow credit for control efficiencies for combustion devices used in HRVOC control, such as thermal, catalytic, and regenerative oxidizers. The rulemaking has also been revised to allow for control efficiencies up to 99.9% for applicable units. The commission will allow for the use of control efficiencies greater than 99% and up to 99.9% only for applicable units for which stack performance testing data has been submitted by the owner or operator as part of the Form ECT-6H, Level of Activity. Allocating allowances based on uncontrolled emissions using control efficiencies greater than 99.9% is impractical as it leads to large variations in allocations on an order of magnitude larger than the highest allocations. The commission will therefore assign a 99.9% control efficiency to any combustion unit that demonstrates an actual measured control efficiency greater than 99.9%.

TPC recommended that the commission correct the proposed allocation methodology by accounting for flare gas recovery, addressing control mechanisms on vent gas streams. TPC strongly recommended allowance allocation credit for flare gas recovery and similar control strategies. Total stated that allowance credit should be included for Vapor Recovery Units (VRU) that recovers HRVOC emissions previously sent to a process flare. Total stated that quantified HRVOC emission reductions achieved through the implementation of a VRU should be added to a site's "Uncontrolled emissions" in the equation under §101.394(a)(1)(B) for the calculation of the site's allowance allocation.

The commission actively solicited comment on accurate and effective methods for calculating

allowance credit for flare gas recovery, vent gas recovery, flare minimization, and other recovery and recycle mechanisms. The commission agrees with the commenters and has added §101.394(a)(3) to allow sites that do not request the use of an alternative emissions baseline period to apply the actual quantified amount of HRVOC emissions reduced through the implementation of flare or vent gas recovery to the site's uncontrolled emissions for the calculation of their allowance allocation.

TCC and TPC expressed their support for the alternate baseline emissions period but recommended the deadline for the alternate baseline request be extended to 150 days after the rule effective date in order to allow regulated entities ample time to prepare and submit the request for review.

The commission agrees with the comment and has revised the alternative baseline request submittal deadline to July 1, 2010.

Lyondell expressed its support for the alternative baseline provision, but requested that the potential alternative baseline period be expanded to include 2002 - 2005 and the qualifying reductions in HRVOC be revised from 50% or 50 tons to 25% or 25 tons. Total expressed support for the alternative baseline provision, but stated that the qualifications for use are too restrictive. Total requested that the commission allow for engineering calculations in lieu of continuous flow monitoring, as speciated flow monitoring was not required prior to 2006. Total also requested that the 50 tons or 50% reduction qualification provision be revised to 20 tons or 20% reductions. In addition, Total believes that reductions driven by permit conditions, regulatory requirements, or consent decrees be included in the provision.

The commission has revised the qualifying reduction amount under §101.394(a)(1)(D)(ii) to allow sites that implemented permanent, voluntary, and quantifiable HRVOC emissions reductions in an amount equal to or greater than 25 tons of site-wide HRVOC emissions resulting in at least a 25% reduction of the site's total annual HRVOC emissions for sites that used continuous speciated flow rate monitoring of HRVOC. The commission has implemented these revisions in response to comment, however it maintains that the 25-ton reduction resulting in at least a 25% site-wide reduction in HRVOC qualification is necessary to ensure that only sites implementing reductions that are significant to both the site and the total Harris County HRVOC cap be considered for the provision. In addition, the qualification of continuous speciated monitoring is critical to ensure that these reductions are quantified using monitoring techniques consistent with those used under the current HECT program. The consideration of limiting the alternative baseline emissions period to two consecutive calendar-year control periods immediately preceding 2006 - 2009 baseline emissions period is necessary to ensure that the reductions considered occurred directly before the 2006 baseline period for the 1997 eight-hour attainment demonstration HGB SIP revision.

Albemarle and COMAQ expressed their opposition to any revisions to the definition of "Baseline emissions period" and stated that it is critical that the restrictions on the qualifications for exceptions to the use of the baseline period be sufficiently restrictive to impose at least the use of continuous monitoring, voluntary and permanent reductions. In addition, Albemarle stated that "site-by-site" evaluations should be avoided to the extent possible to avoid inequitable allocations and the potential for unwarranted advantages to sites given special consideration.

The commission agrees with the commenters. The revisions to the alternative baseline emissions

period qualifications, from a 50-ton total or 50% site-wide reduction to a 25-ton reduction that results in at least a 25% site-wide reduction, is still consistent with the commission's goal of considering only the reductions that are significant to the site's overall emissions while having an impact in the total cap. In conjunction with this revision, the commission has retained the continuous monitoring qualifications and will only consider voluntary and permanent reductions in HRVOC emissions.

PL Propylene strongly supports the provision in §101.394(a)(1)(C) that allows the use of an alternate baseline for sites not in operation from 2006 - 2009. PL Propylene requested that §101.394(a)(1)(C)(i) be revised to state "this allocation is less than the HRVOC permit allowable limit in effect at the time the facility commences operation." In addition, PL Propylene requested that the alternative baseline emissions period be revised from any two consecutive calendar-year control periods from 2010 - 2012 to be any consecutive 24 months from 2010 - 2012.

The commission agrees with the comments and the adopted rules have been revised in accordance with the requests.

TCC, TPC, and Albemarle stated that they recommend emissions from emission events be removed from the calculation for reallocation and each site's "Uncontrolled emissions" should be based solely on actual emissions from routine operation. Albemarle stated that the inclusion of emissions from emission events in the baseline emissions calculation unduly rewards emission events.

The commission agrees with the comment and the definition of "Uncontrolled emissions" has been

modified accordingly.

Emission Event Set-Aside

TCC recommended that proposed §101.396(c) and (d) be deleted from the rule in order to eliminate the proposed 250-ton emissions event set-aside. TCC stated that the elimination of the set-aside would maximize program flexibility and the benefits of cap-and-trade. Albemarle, COMAQ, Lyondell, TCC, Total, and TPC also requested eliminating the 250-ton set-aside for emissions events. The commenters believe that emissions from emission events can best be handled through each site's allocation or the purchase of yearly allowances and the allocation of the additional 250 tons would provide for more flexibility. Albemarle requested the commission retain the emission event reporting requirement under §101.396(c) and (d) due to the value of determining the impact of emissions events on the HECT program. AmericanAcryl expressed its support for the proposed 250-ton emissions event set aside or the elimination of emissions events from applicability to the program.

In response to comment, the rule has been revised based on this comment to eliminate the 250-ton emissions event set-aside pool from §101.396(c). Emissions from emissions events will be treated in the same manner as they are currently addressed in the HECT program. All emissions during emissions events from HECT subject facilities up to the short-term limits under §115.722(c) and §115.761(c) must be covered by an equivalent amount of HRVOC allowances in each site's respective HECT account by March 1 after the end of the control period.

EPA requested clarification that emissions events that exceed the 250-ton set aside will be deducted from each site's account.

The commission has revised the rulemaking to omit the proposed emissions event set-aside. All emissions from emissions events will be addressed in the same manner as they are addressed currently under the HECT program.

EPA 5% Set-Aside

TCC, Lyondell, TPC, and COMAQ expressed their positions that the 5% set-aside to safeguard against potential emission variations is no longer necessary. TCC understood that industry originally agreed to this set-aside as a provision to address new actual HRVOC emissions under the HECT program.

The reduction in the overall HRVOC cap by an initial 5% was implemented as a compliance margin and not a provision for new HRVOC emissions. This compliance margin was a negotiated agreement with EPA to address geographical emission variations, or the potential for emissions "spiking," and will remain necessary after allowance reallocation. No changes were made in response to this comment.

Stream Trades and Reallocation

TCC expressed their concern with the nullification of purchased stream trades due to reallocation of the program. TCC stated that the nullification of purchased allowance streams may adversely impact the integrity of emissions trading in Texas and may result in encouraging emissions. TCC stated the commission must therefore honor past stream trades. Albemarle, Bigler, Kaneka, Lyondell, and TPC stated their opposition to the automatic voidance of existing HECT allowance stream trades due to reallocation. Albemarle proposed two alternatives to stream trade voidance, a set-aside pool, or

incorporating stream trades into a site's "Uncontrolled emissions" calculation. AmericanAcryl stated that any revised allocation methodology should not reduce a site's allocation below the amount for which a site has traded an allowance stream.

The rules have been revised in response to these comments to allow sites that purchased allowance streams the potential to apply allowances from the stream to the calculation of "Uncontrolled emissions" as actual emissions. Revised §101.394(a)(3)(E) allows sites holding stream trades to calculate their "Uncontrolled emissions" as the greater of their actual average emissions of their two highest emission years from 2006 - 2009 or the sum of their original existing HECT HRVOC allowance and the amount of the allowance stream in tons. In the event that a site's actual two highest year emissions is less than the sum of their original existing HECT HRVOC allowance and the amount of the allowance stream in tons, the difference shall be added to the "Uncontrolled emissions" as actual emissions. In addition, qualifying sites not in operation or with HRVOC emissions that are not representative of permitted normal routine operation, due to an authorized modification that resulted in an HRVOC emission reduction during the baseline emissions period, may request from the executive director the use of any allowance stream from facilities previously participating in the HECT program in lieu of reallocation until the alternate baseline emissions are established. Although the revised rule contains provisions allowing qualified sites to apply for credit for acquired allowance streams towards their allocation in 2011, HECT allowances allocated or acquired do not constitute property rights.

Minimum Allocation and Opt-In Provision

TCC recommended that §101.394 be modified such that only sites with a PTE greater than or equal to ten

tons and required to participate in the program receive a minimum allocation of ten tons. TCC stated that the "opt-in" provision should be eliminated to allow for more allowances to be available for sites that are required to participate in the program. TPC recommended sites that opted-in to the program receive a five-ton allocation and these sites with a PTE less than ten tons should be afforded the opportunity to opt-out. Lyondell commented that the opt-in provision from the existing rule be eliminated and opposes the use of the ten ton PTE minimum. Lyondell requested that facilities that have reported less than five tons of actual emissions should not be rewarded with additional allowances. Albemarle recommended increasing the minimum allowance allocation to ten tons and allowing sites with a PTE less than ten tons be allowed to "opt-out" of the program in a manner that allows any allowances that may have been allocated to these sites to be available to the remaining sites required to participate. AmericanAcryl expressed their support for the ten-ton minimum allocation or to "freeze" all allocations below ten tons at the current allocation amount.

The rules have been revised in response to the comments. Sites with a PTE, as defined in §116.12, less than ten tons of HRVOC are exempt from the HECT program and will not be given an allowance allocation. The existing opt-in deadline of April 30, 2005, has passed, no extension or additional opt-in provision has been adopted, and no sites took advantage of the 2005 provision. Therefore, no sites in Harris County with a PTE less than ten tons will participate in the HECT program and be assigned an HRVOC allocation. Participating sites with a calculated allocation of less than five tons based on the revised allocation methodology will be allocated a minimum of five tons. Sites with a calculated allocation of greater than or equal to five tons but less than ten tons will receive a minimum allocation of ten tons. Sites provided the minimum allocation will not be subject to the stepdown provisions of the rules and will retain the minimum allocation in 2017 and

beyond.

COMAQ, Lyondell, TCC, and TPC recommended that the submittal deadline of the Level of Activity Certification, Form ECT-6H, be revised to July1, 2010, in order to allow regulated entities sufficient time to compile and submit the necessary information.

The commission agrees with the comment and §101.401(f) has been revised accordingly.

General Rule Comments

TCC requested that the rule language in §101.392(b) be clarified to exclude the seven perimeter counties from the requirements of this division except for §101.401(a) - (e), as the submittal of the ECT-6H form is not required from sites in these counties.

The commission agrees with the comment and §101.392(b) has been revised as requested to clarify the applicability of §101.392(b) exclusively to Harris County.

Albemarle, COMAQ, DuPont, and Sunoco expressed their support for a provision preventing HECT allowances being used in lieu of FCCA, §185 fees.

The commission appreciates the comment; however, this comment is outside the scope of this rulemaking.

COMAQ requested that §101.399(a) - (c) be revised such that that vintage allowances allocated under

§101.394(a)(1)(A) using the existing allocation methodology cannot be banked or traded after the 2010 calendar-year control period.

The commission respectfully disagrees with the request. The commission does not intend to restrict the banking and trading of allowances based on allocation methodology. The use of vintage 2010 allowances in the 2011 calendar-year control period will be necessary to provide compliance flexibility during the first year under the revised allocation methodology. All requests for allowance trades under Form ECT-2, Application for Transfer of Allowances, must be approved by the executive director. No change has been made in response to this comment.

Albemarle, COMAQ, DuPont, and Sunoco strongly opposed any delay to the reallocation beyond the beginning of the 2011 calendar-year control period. Dupont stated that any delay to the reallocation would exacerbate the issues of an already inequitable program and continue to provide a significant economic advantage to companies that were over-allocated under the existing program.

The commission agrees with the comment and allowances will be reallocated for the calendar-year control period 2011. No changes have been made in response to this comment.

INEOS expressed its support for the inclusion of the 2006 calendar-year control period in the baseline emissions period. INEOS pointed to the compliance requirements in Chapter 115 requiring the implementation of HRVOC stream monitoring by December 31, 2005, as justification that 2006 emissions data should be as reliable as 2007 - 2009 data.

The commission appreciates the comment. No changes were made in response to this comment. The baseline emissions period will continue to include the 2006 calendar-year control period.

Lyondell commented that errors in the 2006 Special Inventory, differentiation in facilities covered under each sector, and potential differences in reporting methodologies or assumptions will impact the allocation of allowances under the proposed methodology. Lyondell provided the example of various industry assumptions in the reporting of HRVOC concentrations in fuel streams and whether emissions should be reported when HRVOC concentrations are below the detection limit in stack gas or when the concentration in the fuel stream is less than 0.5%.

The commission appreciates the comment. HECT participants will have an opportunity to provide accurate emissions, control efficiencies, and other relevant data through the submission of the Form ECT-6H, Level of Activity Certification. HRVOC stream monitoring for all applicable HECT sources has been required since December 31, 2005. Allocations for the 2011 calendar-year control period will be calculated using the most accurate monitoring and testing data available for emissions and control efficiencies during the baseline emission period.

HSC stated its preference for command and control regulation for HRVOC emissions in Harris County, increasing the reductions in the cap to 30%, 35%, or 40%, and speeding up the implementation of the rulemaking.

Voidance of the HECT program and the implementation of command and control emission specifications were not considered during proposal and are outside the scope of this rulemaking.

The commission maintains that the HECT program is the most cost effective means of achieving HRVOC emissions reductions while providing compliance flexibility and maximizing the efficiency of emission reductions through market forces. Individual sources of HRVOC emissions are subject to permit limits and any applicable limit as established by rule. The HECT program provides for additional decreases in HRVOC emissions limits above and beyond these basic requirements. This rulemaking is part of the 1997 eight-hour attainment demonstration HGB 2010 SIP revision. Reallocation of the program will take place in 2011, the first full calendar-year control period following adoption of the rules, and the 25% cap reduction will be fully realized at the beginning of the 2017 calendar-year control period, one full year before the 2018 attainment year. No changes were made in response to this comment.

SUBCHAPTER A: GENERAL RULES

§101.1

STATUTORY AUTHORITY

The amendment is adopted under Texas Water Code (TWC), §5.102, concerning General Powers, that provides the commission with the general powers to carry out its duties under the Texas Water Code; TWC, §5.103, concerning Rules, that authorizes the commission to adopt rules necessary to carry out its powers and duties under the Texas Water Code; TWC, §5.105, concerning General Policy, that authorizes the commission by rule to establish and approve all general policy of the commission; and under Texas Health and Safety Code (THSC), §382.017, concerning Rules, that authorizes the commission to adopt rules consistent with the policy and purposes of the Texas Clean Air Act. The amendment is also adopted under THSC, §382.002, concerning Policy and Purpose, that establishes the commission's purpose to safeguard the state's 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's air; and §382.012, concerning State Air Control Plan, that authorizes the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air. The amendment is also adopted under THSC, §382.016, concerning Monitoring Requirements; Examination of Records, that authorizes the commission to prescribe reasonable requirements for the measuring and monitoring of air contaminant emissions. The amendment is also adopted under Federal Clean Air Act (FCAA), 42 United States Code (USC), §§7401, *et seq*., which requires states to submit state implementation plan revisions that specify the manner in which the National Ambient Air Quality Standard will be achieved and maintained within each air quality control region of the state.

The adopted amendment implements THSC, §§382.002, 382.011, 382.012, 382.016, and 382.017, FCAA, 42 USC, §§7401 *et seq*.

§101.1. Definitions.

Unless specifically defined in the Texas Clean Air Act (TCAA) or in the rules of the commission, the terms used by the commission have the meanings commonly ascribed to them in the field of air pollution control. In addition to the terms that are defined by the TCAA, the following terms, when used in the air quality rules in this title, have the following meanings, unless the context clearly indicates otherwise.

(1) Account--For those sources required to be permitted under Chapter 122 of this title (relating to Federal Operating Permits Program), all sources that are aggregated as a site. For all other sources, any combination of sources under common ownership or control and located on one or more contiguous properties, or properties contiguous except for intervening roads, railroads, rights-of-way, waterways, or similar divisions.

(2) Acid gas flare--A flare used exclusively for the incineration of hydrogen sulfide and other acidic gases derived from natural gas sweetening processes.

(3) Agency established facility identification number--For the purposes of Subchapter F

of this chapter (relating to Emissions Events and Scheduled Maintenance, Startup, and Shutdown Activities), a unique alphanumeric code required to be assigned by the owner or operator of a regulated entity that the emission inventory reporting requirements of §101.10 of this title (relating to Emissions Inventory Requirements) are applicable to each facility at that regulated entity.

(4) Ambient air--That portion of the atmosphere, external to buildings, to which the general public has access.

(5) Background--Background concentration, the level of air contaminants that cannot be reduced by controlling emissions from man-made sources. It is determined by measuring levels in non-urban areas.

(6) Boiler--Any combustion equipment fired with solid, liquid, and/or gaseous fuel used to produce steam or to heat water.

(7) Capture system--All equipment (including, but not limited to, hoods, ducts, fans, booths, ovens, dryers, etc.) that contains, collects, and transports an air pollutant to a control device.

(8) Captured facility--A manufacturing or production facility that generates an industrial solid waste or hazardous waste that is routinely stored, processed, or disposed of on a shared basis in an integrated waste management unit owned, operated by, and located within a contiguous manufacturing complex.

(9) Carbon adsorber--An add-on control device that uses activated carbon to adsorb volatile organic compounds from a gas stream.

(10) Carbon adsorption system--A carbon adsorber with an inlet and outlet for exhaust gases and a system to regenerate the saturated adsorbent.

(11) Coating--A material applied onto or impregnated into a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealants, adhesives, thinners, diluents, inks, maskants, and temporary protective coatings.

(12) Cold solvent cleaning--A batch process that uses liquid solvent to remove soils from the surfaces of parts or to dry the parts by spraying, brushing, flushing, and/or immersion while maintaining the solvent below its boiling point. Wipe cleaning (hand cleaning) is not included in this definition.

(13) Combustion unit--Any boiler plant, furnace, incinerator, flare, engine, or other device or system used to oxidize solid, liquid, or gaseous fuels, but excluding motors and engines used in propelling land, water, and air vehicles.

(14) Combustion turbine--Any gas turbine system that is gas and/or liquid fuel fired with or without power augmentation. This unit is either attached to a foundation or is portable equipment operated at a specific minor or major source for more than 90 days in any 12-month period. Two or more gas turbines powering one shaft will be treated as one unit.

(15) Commercial hazardous waste management facility--Any hazardous waste management facility that accepts hazardous waste or polychlorinated biphenyl compounds for a charge, except a captured facility that disposes only waste generated on-site or a facility that accepts waste only from other facilities owned or effectively controlled by the same person.

(16) Commercial incinerator--An incinerator used to dispose of waste material from retail and wholesale trade establishments.

(17) Commercial medical waste incinerator--A facility that accepts for incineration medical waste generated outside the property boundaries of the facility.

(18) Component--A piece of equipment, including, but not limited to, pumps, valves, compressors, and pressure relief valves that has the potential to leak volatile organic compounds.

(19) Condensate--Liquids that result from the cooling and/or pressure changes of produced natural gas. Once these liquids are processed at gas plants or refineries or in any other manner, they are no longer considered condensates.

(20) Construction-demolition waste--Waste resulting from construction or demolition projects.

(21) Control system or control device--Any part, chemical, machine, equipment,

contrivance, or combination of same, used to destroy, eliminate, reduce, or control the emission of air contaminants to the atmosphere.

(22) Conveyorized degreasing--A solvent cleaning process that uses an automated parts handling system, typically a conveyor, to automatically provide a continuous supply of parts to be cleaned or dried using either cold solvent or vaporized solvent. A conveyorized degreasing process is fully enclosed except for the conveyor inlet and exit portals.

(23) Criteria pollutant or standard--Any pollutant for which there is a national ambient air quality standard established under 40 Code of Federal Regulations Part 50.

(24) Custody transfer--The transfer of produced crude oil and/or condensate, after processing and/or treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.

(25) *De minimis* impact--A change in ground level concentration of an air contaminant as a result of the operation of any new major stationary source or of the operation of any existing source that has undergone a major modification that does not exceed the following specified amounts.

Figure: 30 TAC §101.1(25) (No change)

AIR CONTAMINANT	ANNUAL	24-HOUR	8-HOUR	3-HOUR	1-HOUR
Inhalable Particulate Matter (PM_{10})	1.0 $\mu g/m^3$	5 $\mu g/m^3$			

Sulfur Dioxide	1.0 $\mu g/m^3$	5 $\mu g/m^3$		25 $\mu g/m^3$	
Nitrogen Dioxide	1.0 $\mu g/m^3$				
Carbon Monoxide			0.5 mg/m^3		2 mg/m^3

(26) Domestic wastes--The garbage and rubbish normally resulting from the functions of life within a residence.

(27) Emissions banking--A system for recording emissions reduction credits so they may be used or transferred for future use.

(28) Emissions event--Any upset event or unscheduled maintenance, startup, or shutdown activity, from a common cause that results in unauthorized emissions of air contaminants from one or more emissions points at a regulated entity.

(29) Emissions reduction credit--Any stationary source emissions reduction that has been banked in accordance with Chapter 101, Subchapter H, Division 1 of this title (relating to Emission Credit Banking and Trading).

(30) Emissions reduction credit certificate--The certificate issued by the executive director that indicates the amount of qualified reduction available for use as offsets and the length of time the reduction is eligible for use.

(31) Emissions unit--Any part of a stationary source that emits, or would have the potential to emit, any pollutant subject to regulation under the Federal Clean Air Act.

(32) Excess opacity event--When an opacity reading is equal to or exceeds 15 additional percentage points above an applicable opacity limit, averaged over a six-minute period.

(33) Exempt solvent--Those carbon compounds or mixtures of carbon compounds used as solvents that have been excluded from the definition of volatile organic compound.

(34) External floating roof--A cover or roof in an open top tank that rests upon or is floated upon the liquid being contained and is equipped with a single or double seal to close the space between the roof edge and tank shell. A double seal consists of two complete and separate closure seals, one above the other, containing an enclosed space between them.

(35) Federal motor vehicle regulation--Control of Air Pollution from Motor Vehicles and Motor Vehicle Engines, 40 Code of Federal Regulations Part 85.

(36) Federally enforceable--All limitations and conditions that are enforceable by the United States Environmental Protection Agency administrator, including those requirements developed under 40 Code of Federal Regulations (CFR) Parts 60 and 61; requirements within any applicable state implementation plan (SIP); and any permit requirements established under 40 CFR §52.21 or under regulations approved under 40 CFR Part 51, Subpart 1, including operating permits issued under the

approved program that is incorporated into the SIP and that expressly requires adherence to any permit issued under such program.

(37) Flare--An open combustion unit (i.e., lacking an enclosed combustion chamber) whose combustion air is provided by uncontrolled ambient air around the flame, and that is used as a control device. A flare may be equipped with a radiant heat shield (with or without a refractory lining), but is not equipped with a flame air control damping system to control the air/fuel mixture. In addition, a flare may also use auxiliary fuel. The combustion flame may be elevated or at ground level. A vapor combustor, as defined in this section, is not considered a flare.

(38) Fuel oil--Any oil meeting the American Society for Testing and Materials (ASTM) specifications for fuel oil in ASTM D396-01, Standard Specifications for Fuel Oils, revised 2001. This includes fuel oil grades 1, 1 (Low Sulfur), 2, 2 (Low Sulfur), 4 (Light), 4, 5 (Light), 5 (Heavy), and 6.

(39) Fugitive emission--Any gaseous or particulate contaminant entering the atmosphere that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening designed to direct or control its flow.

(40) Garbage--Solid waste consisting of putrescible animal and vegetable waste materials resulting from the handling, preparation, cooking, and consumption of food, including waste materials from markets, storage facilities, and handling and sale of produce and other food products.

(41) Gasoline--Any petroleum distillate having a Reid vapor pressure of four pounds per

square inch (27.6 kilopascals) or greater that is produced for use as a motor fuel, and is commonly called gasoline.

(42) Hazardous wastes--Any solid waste identified or listed as a hazardous waste by the administrator of the United States Environmental Protection Agency under the federal Solid Waste Disposal Act, as amended by Resource Conservation and Recovery Act, 42 United States Code, §§6901 *et seq*., as amended.

(43) Heatset (used in offset lithographic printing)--Any operation where heat is required to evaporate ink oil from the printing ink. Hot air dryers are used to deliver the heat.

(44) High-bake coatings--Coatings designed to cure at temperatures above 194 degrees Fahrenheit.

(45) High-volume low-pressure spray guns--Equipment used to apply coatings by means of a spray gun that operates between 0.1 and 10.0 pounds per square inch gauge air pressure measured at the air cap.

(46) Incinerator--An enclosed combustion apparatus and attachments that is used in the process of burning wastes for the primary purpose of reducing its volume and weight by removing the combustibles of the waste and is equipped with a flue for conducting products of combustion to the atmosphere. Any combustion device that burns 10% or more of solid waste on a total British thermal unit (Btu) heat input basis averaged over any one-hour period is considered to be an incinerator. A combustion

device without instrumentation or methodology to determine hourly flow rates of solid waste and burning 1.0% or more of solid waste on a total Btu heat input basis averaged annually is also considered to be an incinerator. An open-trench type (with closed ends) combustion unit may be considered an incinerator when approved by the executive director. Devices burning untreated wood scraps, waste wood, or sludge from the treatment of wastewater from the process mills as a primary fuel for heat recovery are not included under this definition. Combustion devices permitted under this title as combustion devices other than incinerators will not be considered incinerators for application of any rule within this title provided they are installed and operated in compliance with the condition of all applicable permits.

(47) Industrial boiler--A boiler located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes.

(48) Industrial furnace--Cement kilns; lime kilns; aggregate kilns; phosphate kilns; coke ovens; blast furnaces; smelting, melting, or refining furnaces, including pyrometallurgical devices such as cupolas, reverberator furnaces, sintering machines, roasters, or foundry furnaces; titanium dioxide chloride process oxidation reactors; methane reforming furnaces; pulping recovery furnaces; combustion devices used in the recovery of sulfur values from spent sulfuric acid; and other devices the commission may list.

(49) Industrial solid waste--Solid waste resulting from, or incidental to, any process of industry or manufacturing, or mining or agricultural operations, classified as follows.

(A) Class 1 industrial solid waste or Class 1 waste is any industrial solid waste designated as Class 1 by the executive director as any industrial solid waste or mixture of industrial solid wastes that because of its concentration or physical or chemical characteristics is toxic, corrosive, flammable, a strong sensitizer or irritant, a generator of sudden pressure by decomposition, heat, or other means, and may pose a substantial present or potential danger to human health or the environment when improperly processed, stored, transported, or otherwise managed, including hazardous industrial waste, as defined in §335.1 and §335.505 of this title (relating to Definitions and Class 1 Waste Determination).

(B) Class 2 industrial solid waste is any individual solid waste or combination of industrial solid wastes that cannot be described as Class 1 or Class 3, as defined in §335.506 of this title (relating to Class 2 Waste Determination).

(C) Class 3 industrial solid waste is any inert and essentially insoluble industrial solid waste, including materials such as rock, brick, glass, dirt, and certain plastics and rubber, etc., that are not readily decomposable as defined in §335.507 of this title (relating to Class 3 Waste Determination).

(50) Internal floating cover--A cover or floating roof in a fixed roof tank that rests upon or is floated upon the liquid being contained, and is equipped with a closure seal or seals to close the space between the cover edge and tank shell.

(51) Leak--A volatile organic compound concentration greater than 10,000 parts per million by volume or the amount specified by applicable rule, whichever is lower; or the dripping or

exuding of process fluid based on sight, smell, or sound.

(52) Liquid fuel--A liquid combustible mixture, not derived from hazardous waste, with a heating value of at least 5,000 British thermal units per pound.

(53) Liquid-mounted seal--A primary seal mounted in continuous contact with the liquid between the tank wall and the floating roof around the circumference of the tank.

(54) Maintenance area--A geographic region of the state previously designated nonattainment under the Federal Clean Air Act Amendments of 1990 and subsequently redesignated to attainment subject to the requirement to develop a maintenance plan under 42 United States Code, §7505a. The following are the maintenance areas within the state:

(A) Victoria Ozone Maintenance Area 60 (*Federal Register* (FR) 12453) - Victoria County; and

(B) Collin County Lead Maintenance Area (64 FR 55421) - Portion of Collin County. Eastside: Starting at the intersection of South Fifth Street and the fence line approximately 1,000 feet south of the Exide property line going north to the intersection of South Fifth Street and Eubanks Street; Northside: Proceeding west on Eubanks to the Burlington Railroad tracks; Westside: Along the Burlington Railroad tracks to the fence line approximately 1,000 feet south of the Exide property line; Southside: Fence line approximately 1,000 feet south of the Exide property line.

(55) Maintenance plan--A revision to the applicable state implementation plan, meeting the requirements of 42 United States Code, §7505a.

(56) Marine vessel--Any watercraft used, or capable of being used, as a means of transportation on water, and that is constructed or adapted to carry, or that carries, oil, gasoline, or other volatile organic liquid in bulk as a cargo or cargo residue.

(57) Mechanical shoe seal--A metal sheet that is held vertically against the storage tank wall by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

(58) Medical waste--Waste materials identified by the Department of State Health Services as "special waste from health care-related facilities" and those waste materials commingled and discarded with special waste from health care-related facilities.

(59) Metropolitan Planning Organization--That organization designated as being responsible, together with the state, for conducting the continuing, cooperative, and comprehensive planning process under 23 United States Code (USC), §134 and 49 USC, §1607.

(60) Mobile emissions reduction credit--The credit obtained from an enforceable, permanent, quantifiable, and surplus (to other federal and state rules) emissions reduction generated by a mobile source as set forth in Chapter 114, Subchapter F of this title (relating to Vehicle Retirement and Mobile Emission Reduction Credits), and that has been banked in accordance with Subchapter H,

Division 1 of this chapter.

(61) Motor vehicle--A self-propelled vehicle designed for transporting persons or property on a street or highway.

(62) Motor vehicle fuel dispensing facility--Any site where gasoline is dispensed to motor vehicle fuel tanks from stationary storage tanks.

(63) Municipal solid waste--Solid waste resulting from, or incidental to, municipal, community, commercial, institutional, and recreational activities, including garbage, rubbish, ashes, street cleanings, dead animals, abandoned automobiles, and all other solid waste except industrial solid waste.

(64) Municipal solid waste facility--All contiguous land, structures, other appurtenances, and improvements on the land used for processing, storing, or disposing of solid waste. A facility may be publicly or privately owned and may consist of several processing, storage, or disposal operational units, e.g., one or more landfills, surface impoundments, or combinations of them.

(65) Municipal solid waste landfill--A discrete area of land or an excavation that receives household waste and that is not a land application unit, surface impoundment, injection well, or waste pile, as those terms are defined under 40 Code of Federal Regulations §257.2. A municipal solid waste landfill (MSWLF) unit also may receive other types of Resource Conservation and Recovery Act Subtitle D wastes, such as commercial solid waste, nonhazardous sludge, conditionally exempt small-quantity generator waste, and industrial solid waste. Such a landfill may be publicly or privately owned. An

MSWLF unit may be a new MSWLF unit, an existing MSWLF unit, or a lateral expansion.

(66) National ambient air quality standard--Those standards established under 42 United States Code, §7409, including standards for carbon monoxide, lead, nitrogen dioxide, ozone, inhalable particulate matter, and sulfur dioxide.

(67) Net ground-level concentration--The concentration of an air contaminant as measured at or beyond the property boundary minus the representative concentration flowing onto a property as measured at any point. Where there is no expected influence of the air contaminant flowing onto a property from other sources, the net ground level concentration may be determined by a measurement at or beyond the property boundary.

(68) New source--Any stationary source, the construction or modification of which was commenced after March 5, 1972.

(69) Nitrogen oxides (NO_x)--The sum of the nitric oxide and nitrogen dioxide in the flue gas or emission point, collectively expressed as nitrogen dioxide.

(70) Nonattainment area--A defined region within the state that is designated by the United States Environmental Protection Agency (EPA) as failing to meet the national ambient air quality standard for a pollutant for which a standard exists. The EPA will designate the area as nonattainment under the provisions of 42 United States Code, §7407(d). For the official list and boundaries of nonattainment areas, see 40 Code of Federal Regulations Part 81 and pertinent *Federal Register* (FR)

notices. The following areas comprise the nonattainment areas within the state for all national ambient air quality standards (NAAQS). EPA has indicated that it will revoke the one-hour ozone standard in full, including the associated designations and classifications, on June 15, 2005, which is one year following the effective date of the designations for the eight-hour NAAQS of June 15, 2004.

(A) Carbon monoxide (CO). El Paso CO nonattainment area (56 FR 56694)--Classified as a Moderate CO nonattainment area with a design value less than or equal to 12.7 parts per million. Portion of El Paso County. Portion of the city limits of El Paso: That portion of the City of El Paso bounded on the north by Highway 10 from Porfirio Diaz Street to Raynolds Street, Raynolds Street from Highway 10 to the Southern Pacific Railroad lines, the Southern Pacific Railroad lines from Raynolds Street to Highway 62, Highway 62 from the Southern Pacific Railroad lines to Highway 20, and Highway 20 from Highway 62 to Polo Inn Road. Bounded on the east by Polo Inn Road from Highway 20 to the Texas-Mexico border. Bounded on the south by the Texas-Mexico border from Polo Inn Road to Porfirio Diaz Street. Bounded on the west by Porfirio Diaz Street from the Texas-Mexico border to Highway 10.

(B) Inhalable particulate matter (PM_{10}). El Paso PM_{10} nonattainment area (56 FR 56694)--Classified as a Moderate PM_{10} nonattainment area. Portion of El Paso County that comprises the El Paso city limit boundaries as they existed on November 15, 1990.

(C) Lead. No designated nonattainment areas.

(D) Nitrogen dioxide. No designated nonattainment areas.

(E) Ozone (one-hour).

(i) Houston-Galveston-Brazoria (HGB) one-hour ozone nonattainment area (56 FR 56694) - Classified as a Severe-17 ozone nonattainment area. Consists of Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties.

(ii) El Paso one-hour ozone nonattainment area (56 FR 56694) - Classified as a Serious ozone nonattainment area. Consists of El Paso County.

(iii) Beaumont-Port Arthur (BPA) one-hour ozone nonattainment area (69 FR 16483) - Classified as a Serious ozone nonattainment area. Consists of Hardin, Jefferson, and Orange Counties.

(iv) Dallas-Fort Worth one-hour ozone nonattainment area (63 FR 8128) - Classified as a Serious ozone nonattainment area. Consists of Collin, Dallas, Denton, and Tarrant Counties.

(F) Ozone (eight-hour).

(i) HGB eight-hour ozone nonattainment area (69 FR 23936) - Classified as a Moderate ozone nonattainment area. Consists of Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties.

(ii) BPA eight-hour ozone nonattainment area (69 FR 23936) - Classified as a Marginal ozone nonattainment area. Consists of Hardin, Jefferson, and Orange Counties.

(iii) Dallas-Fort Worth eight-hour ozone nonattainment area (69 FR 23936) - Classified as a Moderate ozone nonattainment area. Consists of Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, and Tarrant Counties.

(iv) San Antonio eight-hour ozone nonattainment area (69 FR 23936) - Classified under the Federal Clean Air Act, Title I, Part D, Subpart 1 (42 United States Code, §7502), nonattainment deferred to September 30, 2005, or as extended by EPA.

(G) Sulfur dioxide. No designated nonattainment areas.

(71) Non-reportable emissions event--Any emissions event that in any 24-hour period does not result in an unauthorized emission from any emissions point equal to or in excess of the reportable quantity as defined in this section.

(72) Opacity--The degree to which an emission of air contaminants obstructs the transmission of light expressed as the percentage of light obstructed as measured by an optical instrument or trained observer.

(73) Open-top vapor degreasing--A batch solvent cleaning process that is open to the air

and that uses boiling solvent to create solvent vapor used to clean or dry parts through condensation of the hot solvent vapors on the parts.

(74) Outdoor burning--Any fire or smoke-producing process that is not conducted in a combustion unit.

(75) Particulate matter--Any material, except uncombined water, that exists as a solid or liquid in the atmosphere or in a gas stream at standard conditions.

(76) Particulate matter emissions--All finely-divided solid or liquid material, other than uncombined water, emitted to the ambient air as measured by United States Environmental Protection Agency Reference Method 5, as specified at 40 Code of Federal Regulations (CFR) Part 60, Appendix A, modified to include particulate caught by an impinger train; by an equivalent or alternative method, as specified at 40 CFR Part 51; or by a test method specified in an approved state implementation plan.

(77) Petroleum refinery--Any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through distillation of crude oil, or through the redistillation, cracking, extraction, reforming, or other processing of unfinished petroleum derivatives.

(78) PM_{10} --Particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers as measured by a reference method based on 40 Code of Federal Regulations (CFR) Part 50, Appendix J, and designated in accordance with 40 CFR Part 53, or by an equivalent method designated with that Part 53.

(79) PM_{10} emissions--Finely-divided solid or liquid material with an aerodynamic diameter less than or equal to a nominal ten micrometers emitted to the ambient air as measured by an applicable reference method, or an equivalent or alternative method specified in 40 Code of Federal Regulations Part 51, or by a test method specified in an approved state implementation plan.

(80) Polychlorinated biphenyl compound--A compound subject to 40 Code of Federal Regulations Part 761.

(81) Process or processes--Any action, operation, or treatment embracing chemical, commercial, industrial, or manufacturing factors such as combustion units, kilns, stills, dryers, roasters, and equipment used in connection therewith, and all other methods or forms of manufacturing or processing that may emit smoke, particulate matter, gaseous matter, or visible emissions.

(82) Process weight per hour--"Process weight" is the total weight of all materials introduced or recirculated into any specific process that may cause any discharge of air contaminants into the atmosphere. Solid fuels charged into the process will be considered as part of the process weight, but liquid and gaseous fuels and combustion air will not. The "process weight per hour" will be derived by dividing the total process weight by the number of hours in one complete operation from the beginning of any given process to the completion thereof, excluding any time during that the equipment used to conduct the process is idle. For continuous operation, the "process weight per hour" will be derived by dividing the total process weight for a 24-hour period by 24.

(83) Property--All land under common control or ownership coupled with all improvements on such land, and all fixed or movable objects on such land, or any vessel on the waters of this state.

(84) Reasonable further progress--Annual incremental reductions in emissions of the applicable air contaminant that are sufficient to provide for attainment of the applicable national ambient air quality standard in the designated nonattainment areas by the date required in the state implementation plan.

(85) Regulated entity--All regulated units, facilities, equipment, structures, or sources at one street address or location that are owned or operated by the same person. The term includes any property under common ownership or control identified in a permit or used in conjunction with the regulated activity at the same street address or location. Owners or operators of pipelines, gathering lines, and flowlines under common ownership or control in a particular county may be treated as a single regulated entity for purposes of assessment and regulation of emissions events.

(86) Remote reservoir cold solvent cleaning--Any cold solvent cleaning operation in which liquid solvent is pumped to a sink-like work area that drains solvent back into an enclosed container while parts are being cleaned, allowing no solvent to pool in the work area.

(87) Reportable emissions event--Any emissions event that in any 24-hour period, results in an unauthorized emission from any emissions point equal to or in excess of the reportable quantity as defined in this section.

(88) Reportable quantity (RQ)--Is as follows:

(A) for individual air contaminant compounds and specifically listed mixtures by name or Chemical Abstracts Service (CAS) number, either:

(i) the lowest of the quantities:

(I) listed in 40 Code of Federal Regulations (CFR) Part 302, Table 302.4, the column "final RQ";

(II) listed in 40 CFR Part 355, Appendix A, the column "Reportable Quantity"; or

(III) listed as follows:

(-a-) acetaldehyde - 1,000 pounds, except in the Houston-Galveston-Brazoria (HGB) and Beaumont-Port Arthur (BPA) ozone nonattainment areas as defined in paragraph (70)(E)(i) and (iii) of this section, where the RQ must be 100 pounds;

(-b-) butanes (any isomer) - 5,000 pounds;

(-c-) butenes (any isomer, except 1,3-butadiene) - 5,000

pounds, except in the HGB and BPA ozone nonattainment areas as defined in paragraph (70)(E)(i) and (iii) of this section, where the RQ must be 100 pounds;

(-d-) carbon monoxide - 5,000 pounds;

(-e-) 1-chloro-1,1-difluoroethane (HCFC-142b) - 5,000 pounds;

(-f-) chlorodifluoromethane (HCFC-22) - 5,000 pounds;

(-g-) 1-chloro-1-fluoroethane (HCFC-151a) - 5,000 pounds;

(-h-) chlorofluoromethane (HCFC-31) - 5,000 pounds;

(-i-) chloropentafluoroethane (CFC-115) - 5,000 pounds;

(-j-) 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124) - 5,000 pounds;

(-k-) 1-chloro-1,1,2,2 tetrafluoroethane (HCFC-124a) - 5,000 pounds;

(-l-) 1,1,1,2,3,4,4,5,5,5-decafluoropentane (HFC 43-10mee) - 5,000 pounds;

(-m-) decanes (any isomer) - 5,000 pounds;

(-n-) 1,1-dichloro-1-fluoroethane (HCFC-141b) - 5,000 pounds;

(-o-) 3,3-dichloro-1,1,2,2-pentafluoropropane (HCFC-225ca) - 5,000 pounds;

(-p-) 1,3-dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb) - 5,000 pounds;

(-q-) 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFR-114) - 5,000 pounds;

(-r-) 1,1- dichlorotetrafluoroethane (CFC-114a) - 5,000 pounds;

(-s-) 1,2-dichloro-1,1,2-trifluoroethane (HCFC-123a) - 5,000 pounds;

(-t-) 1,1-difluoroethane (HFC-152a) - 5,000 pounds;

(-u-) difluoromethane (HFC-32) - 5,000 pounds;

(-v-) ethanol - 5,000 pounds;

(-w-) ethylene - 5,000 pounds, except in the HGB and BPA ozone nonattainment areas as defined in paragraph (70)(E)(i) and (iii) of this section, where the RQ must be 100 pounds;

(-x-) ethylfluoride (HFC-161) - 5,000 pounds;

(-y -) 1,1,1,2,3,3,3-heptafluoropropane (HFC-227ea) – 5,000 pounds;

(-z-) 1,1,1,3,3,3-hexafluoropropane (HFC-236fa) - 5,000 pounds;

(-aa-) 1,1,1,2,3,3-hexafluoropropane (HFC-236ea) - 5,000 pounds;

(-bb-) hexanes (any isomer) - 5,000 pounds;

(-cc-) isopropyl alcohol - 5,000 pounds;

(-dd-) mineral spirits - 5,000 pounds;

(-ee-) octanes (any isomer) - 5,000 pounds;

(-ff-) oxides of nitrogen - 200 pounds in ozone nonattainment, ozone maintenance, early action compact areas, Nueces County, and San Patricio County, and 5,000 pounds in all other areas of the state, which should be used instead of the RQs for nitrogen oxide and nitrogen dioxide provided in 40 CFR Part 302, Table 302.4, the column "final RQ";

(-gg-) pentachlorofluoroethane (CFR-111) - 5,000 pounds;

(-hh-) 1,1,1,3,3-pentafluorobutane (HFC-365mfc) - 5,000 pounds;

(-ii-) pentafluoroethane (HFC-125) - 5,000 pounds;

(-jj-) 1,1,2,2,3-pentafluoropropane (HFC-245ca) - 5,000 pounds;

(-kk-) 1,1,2,3,3-pentafluoropropane (HFC-245ea) -

5,000 pounds;

(-ll-) 1,1,1,2,3-pentafluoropropane (HFC-245eb) - 5,000 pounds;

(-mm-) 1,1,1,3,3-pentafluoropropane (HFC-245fa) - 5,000 pounds;

(-nn-) pentanes (any isomer) - 5,000 pounds;

(-oo-) propane - 5,000 pounds;

(-pp-) propylene - 5,000 pounds, except in the HGB and BPA ozone nonattainment areas as defined in paragraph (70)(E)(i) and (iii) of this section, where the RQ must be 100 pounds;

(-qq-) 1,1,2,2-terachlorodifluoroethane (CFR -112) - 5,000 pounds;

(-rr-) 1,1,1,2-tetrachlorodifluoroethane (CFC-112a) - 5,000 pounds;

(-ss-) 1,1,2,2-tetrafluoroethane (HFC-134) - 5,000

pounds;

(-tt-) 1,1,1,2-tetrafluoroethane (HFC-134a) - 5,000 pounds;

(-uu-) 1,1,2-trichloro-1,2,2-trifluoroethane (CFR-113) - 5,000 pounds;

(-vv-) 1,1,1-trichloro- 2,2,2- trilfloroethane (CFC- 113a) - 5,000 pounds;

(-ww-) 1,1,1-trifluoro-2,2-dichloroethane (HCFC-123) - 5,000 pounds;

(-xx-) 1,1,1-trifluoroethane (HFC-143a) - 5,000 pounds;

(-yy-) trifluoromethane (HFC-23) - 5,000 pounds; or

(-zz-) toluene - 1,000 pounds, except in the HGB and BPA ozone nonattainment areas as defined in paragraph (70)(E)(i) and (iii) of this section, where the RQ must be 100 pounds;

(ii) if not listed in clause (i) of this subparagraph, 100 pounds;

(B) for mixtures of air contaminant compounds:

(i) where the relative amount of individual air contaminant compounds is known through common process knowledge or prior engineering analysis or testing, any amount of an individual air contaminant compound that equals or exceeds the amount specified in subparagraph (A) of this paragraph;

(ii) where the relative amount of individual air contaminant compounds in subparagraph (A)(i) of this paragraph is not known, any amount of the mixture that equals or exceeds the amount for any single air contaminant compound that is present in the mixture and listed in subparagraph (A)(i) of this paragraph;

(iii) where each of the individual air contaminant compounds listed in subparagraph (A)(i) of this paragraph are known to be less than 0.02% by weight of the mixture, and each of the other individual air contaminant compounds covered by subparagraph (A)(ii) of this paragraph are known to be less than 2.0% by weight of the mixture, any total amount of the mixture of air contaminant compounds greater than or equal to 5,000 pounds; or

(iv) where natural gas excluding carbon dioxide, water, nitrogen, methane, ethane, noble gases, hydrogen, and oxygen or air emissions from crude oil are known to be in an amount greater than or equal to 5,000 pounds or the associated hydrogen sulfide and mercaptans in a total amount greater than 100 pounds, whichever occurs first;

(C) for opacity from boilers and combustion turbines as defined in this section fueled by natural gas, coal, lignite, wood, fuel oil containing hazardous air pollutants at a concentration of less than 0.02% by weight, opacity that is equal to or exceeds 15 additional percentage points above the applicable limit, averaged over a six-minute period. Opacity is the only RQ applicable to boilers and combustion turbines described in this paragraph; or

(D) for facilities where air contaminant compounds are measured directly by a continuous emission monitoring system providing updated readings at a minimum 15-minute interval an amount, approved by the executive director based on any relevant conditions and a screening model, that would be reported prior to ground level concentrations reaching at any distance beyond the closest regulated entity property line:

(i) less than one-half of any applicable ambient air standards; and

(ii) less than two times the concentration of applicable air emission limitations.

(89) Rubbish--Nonputrescible solid waste, consisting of both combustible and noncombustible waste materials. Combustible rubbish includes paper, rags, cartons, wood, excelsior, furniture, rubber, plastics, yard trimmings, leaves, and similar materials. Noncombustible rubbish includes glass, crockery, tin cans, aluminum cans, metal furniture, and like materials that will not burn at ordinary incinerator temperatures (1,600 degrees Fahrenheit to 1,800 degrees Fahrenheit).

(90) Scheduled maintenance, startup, or shutdown activity--For activities with unauthorized emissions that are expected to exceed a reportable quantity (RQ), a scheduled maintenance, startup, or shutdown activity is an activity that the owner or operator of the regulated entity whether performing or otherwise affected by the activity, provides prior notice and a final report as required by §101.211 of this title (relating to Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements); the notice or final report includes the information required in §101.211 of this title; and the actual unauthorized emissions from the activity do not exceed the emissions estimates submitted in the initial notification by more than an RQ. For activities with unauthorized emissions that are not expected to, and do not, exceed an RQ, a scheduled maintenance, startup, or shutdown activity is one that is recorded as required by §101.211 of this title. Expected excess opacity events as described in §101.201(e) of this title (relating to Emissions Event Reporting and Recordkeeping Requirements) resulting from scheduled maintenance, startup, or shutdown activities are those that provide prior notice (if required), and are recorded and reported as required by §101.211 of this title.

(91) Sludge--Any solid or semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant; water supply treatment plant, exclusive of the treated effluent from a wastewater treatment plant; or air pollution control equipment.

(92) Smoke--Small gas-born particles resulting from incomplete combustion consisting predominately of carbon and other combustible material and present in sufficient quantity to be visible.

(93) Solid waste--Garbage, rubbish, refuse, sludge from a waste water treatment plant,

water supply treatment plant, or air pollution control equipment, and other discarded material, including solid, liquid, semisolid, or containerized gaseous material resulting from industrial, municipal, commercial, mining, and agricultural operations and from community and institutional activities. The term does not include:

(A) solid or dissolved material in domestic sewage, or solid or dissolved material in irrigation return flows, or industrial discharges subject to regulation by permit issued under the Texas Water Code, Chapter 26;

(B) soil, dirt, rock, sand, and other natural or man-made inert solid materials used to fill land, if the object of the fill is to make the land suitable for the construction of surface improvements; or

(C) waste materials that result from activities associated with the exploration, development, or production of oil or gas, or geothermal resources, and other substance or material regulated by the Railroad Commission of Texas under Natural Resources Code, §91.101, unless the waste, substance, or material results from activities associated with gasoline plants, natural gas liquids processing plants, pressure maintenance plants, or repressurizing plants and is hazardous waste as defined by the administrator of the United States Environmental Protection Agency under the federal Solid Waste Disposal Act, as amended by Resource Conservation and Recovery Act, as amended (42 United States Code, §§6901 *et seq*.).

(94) Sour crude--A crude oil that will emit a sour gas when in equilibrium at atmospheric

pressure.

(95) Sour gas--Any natural gas containing more than 1.5 grains of hydrogen sulfide per 100 cubic feet, or more than 30 grains of total sulfur per 100 cubic feet.

(96) Source--A point of origin of air contaminants, whether privately or publicly owned or operated. Upon request of a source owner, the executive director shall determine whether multiple processes emitting air contaminants from a single point of emission will be treated as a single source or as multiple sources.

(97) Special waste from health care-related facilities--A solid waste that if improperly treated or handled, may serve to transmit infectious disease(s) and that is comprised of the following: animal waste, bulk blood and blood products, microbiological waste, pathological waste, and sharps.

(98) Standard conditions--A condition at a temperature of 68 degrees Fahrenheit (20 degrees Centigrade) and a pressure of 14.7 pounds per square inch absolute (101.3 kiloPascals).

(99) Standard metropolitan statistical area--An area consisting of a county or one or more contiguous counties that is officially so designated by the United States Bureau of the Budget.

(100) Submerged fill pipe--A fill pipe that extends from the top of a tank to have a maximum clearance of six inches (15.2 centimeters) from the bottom or, when applied to a tank that is loaded from the side, that has a discharge opening entirely submerged when the pipe used to withdraw

liquid from the tank can no longer withdraw liquid in normal operation.

(101) Sulfur compounds--All inorganic or organic chemicals having an atom or atoms of sulfur in their chemical structure.

(102) Sulfuric acid mist/sulfuric acid--Emissions of sulfuric acid mist and sulfuric acid are considered to be the same air contaminant calculated as $H_2 SO_4$ and must include sulfuric acid liquid mist, sulfur trioxide, and sulfuric acid vapor as measured by Test Method 8 in 40 Code of Federal Regulations Part 60, Appendix A.

(103) Sweet crude oil and gas--Those crude petroleum hydrocarbons that are not "sour" as defined in this section.

(104) Total suspended particulate--Particulate matter as measured by the method described in 40 Code of Federal Regulations Part 50, Appendix B.

(105) Transfer efficiency--The amount of coating solids deposited onto the surface or a part of product divided by the total amount of coating solids delivered to the coating application system.

(106) True vapor pressure--The absolute aggregate partial vapor pressure, measured in pounds per square inch absolute, of all volatile organic compounds at the temperature of storage, handling, or processing.

(107) Unauthorized emissions--Emissions of any air contaminant except carbon dioxide, water, nitrogen, methane, ethane, noble gases, hydrogen, and oxygen that exceed any air emission limitation in a permit, rule, or order of the commission or as authorized by Texas Clean Air Act, §382.0518(g).

(108) Unplanned maintenance, startup, or shutdown activity--For activities with unauthorized emissions that are expected to exceed a reportable quantity or with excess opacity, an unplanned maintenance, startup, or shutdown activity is:

(A) a startup or shutdown that was not part of normal or routine facility operations, is unpredictable as to timing, and is not the type of event normally authorized by permit; or

(B) a maintenance activity that arises from sudden and unforeseeable events beyond the control of the operator that requires the immediate corrective action to minimize or avoid an upset or malfunction.

(109) Upset event--An unplanned and unavoidable breakdown or excursion of a process or operation that results in unauthorized emissions. A maintenance, startup, or shutdown activity that was reported under §101.211 of this title (relating to Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements), but had emissions that exceeded the reported amount by more than a reportable quantity due to an unplanned and unavoidable breakdown or excursion of a process or operation is an upset event.

(110) Utility boiler--A boiler used to produce electric power, steam, or heated or cooled air, or other gases or fluids for sale.

(111) Vapor combustor--A partially enclosed combustion device used to destroy volatile organic compounds by smokeless combustion without extracting energy in the form of process heat or steam. The combustion flame may be partially visible, but at no time does the device operate with an uncontrolled flame. Auxiliary fuel and/or a flame air control damping system that can operate at all times to control the air/fuel mixture to the combustor's flame zone, may be required to ensure smokeless combustion during operation.

(112) Vapor-mounted seal--A primary seal mounted so there is an annular space underneath the seal. The annular vapor space is bounded by the bottom of the primary seal, the tank wall, the liquid surface, and the floating roof or cover.

(113) Vent--Any duct, stack, chimney, flue, conduit, or other device used to conduct air contaminants into the atmosphere.

(114) Visible emissions--Particulate or gaseous matter that can be detected by the human eye. The radiant energy from an open flame is not considered a visible emission under this definition.

(115) Volatile organic compound--As defined in 40 Code of Federal Regulations §51.100(s), except §51.100(s)(2) - (4), as amended on January 21, 2009 (74 FR 3441).

(116) Volatile organic compound (VOC) water separator--Any tank, box, sump, or other container in which any VOC, floating on or contained in water entering such tank, box, sump, or other container, is physically separated and removed from such water prior to outfall, drainage, or recovery of such water.

SUBCHAPTER H: EMISSIONS BANKING AND TRADING

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

§§101.390 - 101.394, 101.396, 101.399 - 101.401

STATUTORY AUTHORITY

The amendments are adopted under Texas Water Code (TWC), §5.102, concerning General Powers, that provides the commission with the general powers to carry out its duties under the Texas Water Code; TWC, §5.103, concerning Rules, that authorizes the commission to adopt rules necessary to carry out its powers and duties under the Texas Water Code; TWC, §5.105, concerning General Policy, that authorizes the commission by rule to establish and approve all general policy of the commission; and under Texas Health and Safety Code (THSC), §382.017, concerning Rules, that authorizes the commission to adopt rules consistent with the policy and purposes of the Texas Clean Air Act. The amendments are also adopted under THSC, §382.002, concerning Policy and Purpose, that establishes the commission's purpose to safeguard the state's 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's air; and §382.012, concerning State Air Control Plan, that authorizes the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air. The amendments are also adopted under THSC, §382.016, concerning Monitoring Requirements; Examination of Records, that authorizes the commission to prescribe reasonable requirements for the measuring and monitoring of air contaminant emissions. The amendments are also adopted under Federal Clean Air Act (FCAA), 42 United States Code (USC), §§7401, *et seq*., which requires states to submit state implementation plan revisions that specify the manner in which the

National Ambient Air Quality Standard will be achieved and maintained within each air quality control region of the state.

The adopted amendments implement THSC, §§382.002, 382.011, 382.012, 382.016, and 382.017, FCAA, 42 USC, §§7401 *et seq*.

§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) Baseline emissions period--The two consecutive calendar-year control periods from

2006 - 2009 with the highest monitored average actual HRVOC emissions for the purpose of establishing baseline emissions used for the allocation of allowances, except as allowed under §101.394(a)(1)(C) and (D) of this title (relating to Allocation of Allowances).

(5) 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.

(6) 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.

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

(8) Industry sector--One of the following sectors of industry in which participants of the Highly Reactive Volatile Organic Carbons (HRVOC) Emissions Cap and Trade program are to be assigned, according to the process type and products from which the largest share of HRVOC emissions is associated, for the purpose of assigning an industry sector share under the allocation equation located in §101.394(a)(1)(B) of this title (relating to Allocation of Allowances): petroleum refining, non-polymer chemical producers, polymer producers, and storage/loading/other.

(9) 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.

(10) Uncontrolled emissions--The total emissions during routine normal operations from each applicable facility calculated as pre-control using the applicable control efficiency for the purpose of determining site allocations under §101.394(a)(1)(B) of this title (relating to Allocation of Allowances) .

§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). Applicable 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, 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 will 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 applicable facilities at the site are exempt from the requirements of this division.

(b) 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(a) - (e) 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, will 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 applicable 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) The executive director will deposit allowances into compliance accounts as follows.

(1) For sites located in Harris County, 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 equations in subparagraphs (A) and (B) of this paragraph.

(A) For calendar-year control periods 2007 - 2010, the following equation will be used to determine the allocation for each site:

Figure: 30 TAC §101.394(a)(1)(A)

$$S = \frac{LA}{\sum_{i=1}^{n} LAi} \times AC^{1}$$

Where:

S = the allocation for the site.

i = each site located in Harris County and subject to this division.

n = the total number of sites subject to this division.

LA = the level of activity baseline for a site, calculated as the annual level of activity for any 12 consecutive months during the period of 2000 - 2004 for the site, as certified by the executive director.

AC^1 = 3,106.3 tons per year of highly-reactive volatile organic compounds less the total amount allocated to those sites receiving a minimum allocation .

(B) For calendar-year control periods 2011 and later the following allocation methodology will apply:

Figure: 30 TAC §101.394(a)(1)(B)

$$S = AC^1 \times (\text{Industry Sector Share}) \times (\text{Site Share})$$

Where:

S = the allocation for the site.

Industry Sector Share = Total actual average emissions for the industry sector during the baseline emissions period divided by the total actual average emissions for all participating sites during the baseline emissions period.

Site Share = The sum of the total average actual emissions for vents, cooling towers, and other facilities and uncontrolled emissions for flares, heaters, boilers, furnaces, thermal and catalytic oxidizers, and other combustion control devices combusting highly-reactive volatile organic compound (HRVOC) streams, during the baseline emissions period divided by the total uncontrolled actual average emissions for the industry sector during the baseline emission period.

AC^1 = the amount of HRVOC tons defined in (1) - (5) of this figure less the total amount allocated to those sites receiving a minimum allocation under §101.394(a)(1)(E) of this title .

(1) For 2011 - 2013, AC^1 = 3,451.5 tons;

(2) For 2014, AC^1 = 3,105.9 tons;

(3) For 2015, AC^1 = 2,932.9 tons;

(4) For 2016, AC^1 = 2,761.2 tons; and

(5) For 2017 and all subsequent calendar-year control periods, AC^1 = 2,588.6 tons.

(C) Qualifying sites not in operation or with HRVOC emissions that are not representative of permitted normal routine operation due to an authorized modification that resulted in an HRVOC emission reduction during the baseline emissions period may request from the executive director the use of any allowance stream acquired from facilities previously participating in the HRVOC Emissions Cap and Trade program in lieu of reallocation until the alternate baseline emissions are established for the site, according to the following:

(i) this allowance stream is less than the HRVOC permit allowable limit in effect at the time the facility commences operation;

(ii) the baseline emissions period for any site under this subparagraph will be any consecutive 24 months from 2010 - 2012; and

(iii) beginning with the 2014 calendar-year control period, all sites will receive an allocation in accordance with the methodology under subparagraph (B) of this paragraph.

(D) A site meeting the following conditions may request to use an alternative baseline emissions period consisting of the two consecutive calendar-year control periods immediately preceding the baseline emissions period defined under §101.390 of this title (relating to Definitions):

(i) the site used continuous flow rate monitoring and speciation of HRVOC to determine HRVOC emissions during the alternative baseline period;

(ii) the site had permanent, voluntary, and quantifiable HRVOC emission reductions in an amount equal to or greater than 25 tons resulting in a site-wide reduction in HRVOC emissions of at least 25% as calculated by comparing the average HRVOC emissions from the alternate baseline period to the baseline emissions period defined under §101.390 of this title;

(iii) qualifying HRVOC emission reductions must have been made

enforceable by a permit application submitted under Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification) or other submittal to the executive director no later than April 1, 2010; and

(iv) a request for an alternative baseline period must be received by the executive director no later than July 1, 2010.

(2) For sites located in Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, and Waller Counties, 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) (No change)

$$S = \frac{LA}{\sum_{i=1}^{n} LAi} \times AC$$

Where:

S = the greater of 5.0 tons or the allocation for the site.

i = each site located in Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, and Waller Counties and subject to this division.

n = the total number of sites subject to this division.

LA = the level of activity baseline for a site, calculated as the annual level of activity for 12 consecutive months during the period of 2000 - 2004 for the site, as certified by the executive director.

AC^2 = 4,390.8 tons per year of highly-reactive volatile organic compounds less the total amount allocated to those sites receiving a minimum of 5.0 tons.

(3) Uncontrolled emissions for applicable facility types for use in determining site allocations under paragraph (1)(B) of this subsection shall be calculated as follows:

(A) For flares, the uncontrolled emissions are equal to actual average HRVOC emissions from routine normal operation during the baseline emissions period for that facility divided by one minus the average percent control efficiency specifications for flares in §115.725(d) of this title (relating to Monitoring and Testing Requirements).

(B) For heaters, boilers, furnaces, thermal and catalytic oxidizers, and other combustion control devices combusting HRVOC streams, the uncontrolled emissions shall be calculated by dividing actual average emissions from routine normal operation during the baseline emissions period for each facility by one minus 99%, or by one minus the actual monitored HRVOC control efficiency for the facility, not to exceed 99.9%, if that facility has demonstrated the actual monitored HRVOC control efficiency through stack performance testing.

(C) For all other facilities without a demonstrated combustion control efficiency, the control efficiency is equal to zero; therefore, the uncontrolled emissions will be equal to the actual HRVOC emissions from routine normal operation.

(D) For sites that employ flare or vent gas recovery or flare minimization control strategies that are not requesting the use of an alternative baseline emissions period under paragraph (1)(D) of this subsection, the owner or operator may request to include the amount of any quantifiable reduction in actual HRVOC emissions attributable to the use of flare or vent gas recovery as uncontrolled

emissions, subject to approval by the executive director. The amount of quantified reductions is equal to the difference of the average actual HRVOC emissions from routine normal operation during a consecutive 12-month period prior to the 2006 - 2009 baseline emissions period and the implementation of the HRVOC gas recovery or flare minimization control strategy and the enforceable allowable HRVOC permit limit for the applicable facilities after the recovery-based emissions reduction strategy implementation. The average actual HRVOC emissions used for quantifying the reductions under this subparagraph must be determined through continuous flow rate monitoring and HRVOC speciation testing. This allowable emissions limit must be made enforceable through a permit application submitted under Chapter 116 of this title to the executive director no later than April 1, 2010. Credit allocated for reductions due to flare or vent gas recovery cannot also be creditable if the HRVOC stream is sent to another control device. The creditable emissions from flare gas recovery calculated in this subparagraph are then converted to uncontrolled emissions through the use of the average control efficiency specifications under §115.725(d) of this title.

(E) For sites that have purchased HRVOC allowance streams, uncontrolled emissions shall be the greater of their uncontrolled emissions calculated under subparagraphs (A) - (C) of this paragraph, or the sum of their original existing HRVOC allowance allocated according to paragraph (1) of this subsection and the amount of the allowance stream in tons. In the event that a site's actual two-high year emissions is less than the sum of its original existing HRVOC allowance and the amount of the allowance stream in tons, the difference shall be added to the uncontrolled emissions as actual emissions.

(b) The level of activity of a site will 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) 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)(1)(A) of this section will be eligible to receive a minimum allocation of 5.0 tons of HRVOC allowances per year.

(d) Sites subject to the requirements of this division that receive an HRVOC allocation of less than 5.0 tons based on the allocation methodology under subsection (a)(1)(B) of this section will be eligible to receive a minimum allocation of 5.0 tons of HRVOC allowances per year. Sites subject to the requirements of this division that receive an HRVOC allocation of greater than or equal to 5.0 tons but less than 10.0 tons based on the allocation methodology under subsection (a)(1)(B) of this section will be eligible to receive a minimum allocation of 10.0 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 will 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 will 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).

§101.396. Allowance Deductions.

(a) On March 31 of each year after a control period, allowances representing the total highly-reactive volatile organic compounds (HRVOC) emissions from the applicable facilities at a site during the previous control period will be deducted from the compliance account for the site. The amount of HRVOC emissions will be based upon the monitoring and testing protocols established in §115.725 and §115.764 of this title (relating to Monitoring and Testing Requirements), as appropriate.

(b) The amount of HRVOC emissions from applicable facilities will be calculated for each hour

of the year and summed to determine the annual emissions for compliance. For emissions from scheduled maintenance, startup, or shutdown activities subject to the requirements of §101.211 of this title (relating to Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements), the hourly emissions to be included in the summation shall not exceed the short-term limit of §115.722(c) and §115.761(c) of this title (relating to Site-wide Cap and Control Requirements; and Site-wide Cap).

(c) If the monitoring and testing data referenced in subsection (a) of this section does not exist or is unavailable, the site may determine its HRVOC emissions for that period of time using the following methods and in the following order: continuous monitoring data; periodic monitoring data; testing data; data from manufacturers; and engineering calculations. When determining the amount of HRVOC emissions under this subsection, the site will include a justification for using the substitute method or methods in lieu of the methods referenced in subsection (a) of this section.

(d) When deducting allowances from the compliance account of a site for a control period, the executive director will deduct the allowances beginning with the most recently allocated allowances before deducting banked vintage allowances.

§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 that were provided under §101.394(a)(1)(C) of this title (relating to Allocation of Allowances) are not eligible for transfer under subsections (b), (c), or (d) of this section.

(f) 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.

(g) Only authorized account representatives may transfer allowances.

(h) 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.

(i) 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(i)(4)

$$A = \frac{1}{11.57} \sum (R_i \times E_i)$$

Where:

A = yearly allocation of highly-reactive volatile organic compound allowances.

R_i = the reactivity of each speciated volatile organic compound reduced as specified in California Code of Regulations, Title 17, Chapter 1, §94700, concerning MIR Values for Compounds, as amended.

E_i = the actual emissions reduced, in tons per year, of each speciated volatile organic compound.

(5) For each site eligible to receive allowances under §101.394(a) of this title, 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 will submit a completed Form ECT-1H, Highly-Reactive Volatile Organic Compound (HRVOC) Emissions Cap and Trade Annual Compliance Report, to the executive director, which will include the following:

(1) the total amount of actual HRVOC emissions from applicable 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;

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

(4) the total amount and respective dates of HRVOC emissions from emissions events subject to the requirements of §101.201 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements).

(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 will 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 will 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 will 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 will provide enforceable documentation of the maximum allowable emission rate of highly-reactive volatile organic compounds from facilities located at that site.

(f) No later than July 1, 2010, the owner or operator of each site subject to this division will submit to the executive director a completed Form ECT-6H, Highly Reactive Volatile Organic Compound Emissions Cap and Trade Baseline Emissions Certification Form.

(g) For each site subject to this division, the owner or operator will certify in the ECT-6H form the two highest consecutive calendar-year control periods selected from the period of 2006 - 2009 to establish the baseline emissions period.