

TABLES & GRAPHICS

Graphic images included in rules are published separately in this tables and graphics section. Graphic images are arranged in this section in the following order: Title Number, Part Number, Chapter Number and Section Number.

Graphic images are indicated in the text of the emergency, proposed, and adopted rules by the following tag: the word “Figure” followed by the TAC citation, rule number, and the appropriate subsection, paragraph, subparagraph, and so on.

Figure 22 TAC §102.1

SCHEDULE OF FEES

	Board Fee	Professional Fee	Texas Online	Peer Assistance	Patient Protection	83rd Leg – HB 3201	84th Leg – <u>SB 195</u>	Total Fee
DENTIST								
Application by Exam	\$215.00	\$200.00	<u>\$5.00</u>	<u>\$7.00</u>	\$5.00	\$55.00	<u>\$13.00</u>	\$475.00 <u>\$500.00</u>
Annual Renewal	\$150.00	\$200.00	\$10.00 <u>\$4.00</u>	\$9.00 <u>\$7.00</u>	\$1.00	\$55.00	<u>\$13.00</u>	\$425.00 <u>\$430.00</u>
Annual Renewal – Late 1 to 90 days	\$225.00	\$200.00	\$10.00 <u>\$4.00</u>	\$9.00 <u>\$7.00</u>	\$1.00	\$55.00	<u>\$13.00</u>	\$500.00 <u>\$505.00</u>
Annual Renewal – Late 90 to 365 days	\$300.00	\$200.00	\$10.00 <u>\$4.00</u>	\$9.00 <u>\$7.00</u>	\$1.00	\$55.00	<u>\$13.00</u>	\$575.00 <u>\$580.00</u>
Licensure by Credentials	\$2,800.00	<u>\$200.00</u>	<u>\$5.00</u>	<u>\$7.00</u>	<u>\$5.00</u>	\$55.00	<u>\$13.00</u>	\$2855.00 <u>\$3085.00</u>
Temporary Licensure by Credentials	\$750.00	<u>\$200.00</u>	<u>\$5.00</u>	<u>\$7.00</u>	<u>\$5.00</u>	<u>\$55.00</u>	<u>\$13.00</u>	\$750.00 <u>\$1035.00</u>
Provisional License	\$100.00							\$100.00
Faculty Initial Application	\$115.00		<u>\$4.00</u>	<u>\$7.00</u>	\$5.00	<u>\$55.00</u>	<u>\$13.00</u>	\$120.00 <u>\$199.00</u>
Faculty Annual Renewal	\$95.00		\$10.00 <u>\$3.00</u>	\$9.00 <u>\$7.00</u>	\$1.00	<u>\$55.00</u>	<u>\$13.00</u>	\$115.00 <u>\$174.00</u>
Faculty Annual Renewal – Late 1 to 90 days	\$142.50		\$10.00 <u>\$3.00</u>	\$9.00 <u>\$7.00</u>	\$1.00	<u>\$55.00</u>	<u>\$13.00</u>	\$162.50 <u>\$221.50</u>
Faculty Annual Renewal – Late 90 to 365 days	\$190.00		\$10.00 <u>\$3.00</u>	\$9.00 <u>\$7.00</u>	\$1.00	<u>\$55.00</u>	<u>\$13.00</u>	\$210.00 <u>\$269.00</u>
Conversion Fee – Faculty to Full Privilege	\$50.00							\$50.00
Nitrous Oxide and Level 1 Anesthesia Application	\$32.00							\$32.00
Nitrous Oxide and Level 1 Anesthesia Annual Renewal	\$10.00							\$10.00
Level 2 thru Level 4 Anesthesia Application	\$60.00							\$60.00
Level 2 thru Level 4 Anesthesia Annual Renewal	\$10.00							\$10.00
Portability of Anesthesia Level 3 thru Level 4 Application	\$120.00							\$120.00
Application to Reactivate a Retired License	\$75.00							\$75.00
Reinstatement of a Canceled Dental License	\$850.00 <u>\$860.00</u>							\$850.00 <u>\$860.00</u>
Duplicate License / Renewal	\$25.00							\$25.00

SCHEDULE OF FEES

	Board Fee	Professional Fee	Texas Online	Peer Assistance	Patient Protection	83rd Leg – HB 3201	84th Leg – <u>SB 195</u>	Total Fee
Conversion Fee – Full Privilege to Faculty	\$50.00							\$50.00
Conversion Fee – Temporary Licensure by Credentials to Full Privilege	\$2,050.00	<u>\$200.00</u>	<u>\$5.00</u>	<u>\$7.00</u>	<u>\$5.00</u>	\$55.00	<u>\$13.00</u>	\$2105.00 <u>\$2335.00</u>
DENTAL HYGIENIST								
Application by Exam	\$115.00		<u>\$4.00</u>	<u>\$2.00</u>	\$5.00			\$120.00 <u>\$126.00</u>
Annual Renewal	\$100.00		\$6.00 <u>\$3.00</u>	\$2.00	\$1.00			\$109.00 <u>\$106.00</u>
Annual Renewal – Late 1 to 90 days	\$150.00		\$6.00 <u>\$3.00</u>	\$2.00	\$1.00			\$159.00 <u>\$156.00</u>
Annual Renewal – Late 90 to 365 days	\$200.00		\$6.00 <u>\$3.00</u>	\$2.00	\$1.00			\$209.00 <u>\$206.00</u>
Licensure by Credentials	\$630.00		<u>\$4.00</u>	<u>\$2.00</u>	<u>\$5.00</u>			\$630.00 <u>\$641.00</u>
Temporary Licensure by Credentials	\$220.00		<u>\$4.00</u>	<u>\$2.00</u>	<u>\$5.00</u>			\$220.00 <u>\$231.00</u>
Faculty Initial Application	\$115.00		<u>\$4.00</u>	<u>\$2.00</u>	\$5.00			\$120.00 <u>\$126.00</u>
Faculty Annual Renewal	\$83.00		\$6.00 <u>\$3.00</u>	\$2.00	\$1.00			\$92.00 <u>\$89.00</u>
Faculty Annual Renewal – Late 1 to 90 days	\$124.50		\$6.00 <u>\$3.00</u>	\$2.00	\$1.00			\$133.50 <u>\$130.50</u>
Faculty Annual Renewal – Late 90 to 365 days	\$166.00		\$6.00 <u>\$3.00</u>	\$2.00	\$1.00			\$175.00 <u>\$172.00</u>
Conversion Fee – Faculty to Full Privilege	\$50.00							\$50.00
Application to Reactivate a Retired License	\$75.00							\$75.00
Reinstatement of a Canceled Dental Hygiene License	\$218.00 <u>\$212.00</u>							\$218.00 <u>\$212.00</u>
Duplicate License / Renewal	\$25.00							\$25.00
Nitrous Oxide Cons Sed Monitoring Application	\$12.00							\$12.00
Nitrous Oxide Monitoring Duplicate Certificate	\$10.00							\$10.00
Conversion Fee – Full Privilege to Faculty	\$50.00							\$50.00
Conversion Fee – Temporary Licensure by Credentials to Full Privilege	\$410.00		<u>\$4.00</u>	<u>\$2.00</u>	<u>\$5.00</u>			\$410.00 <u>\$421.00</u>

SCHEDULE OF FEES

	Board Fee	Professional Fee	Texas Online	Peer Assistance	Patient Protection	83rd Leg – HB 3201	84th Leg – SB 195	Total Fee
DENTAL ASSISTANT								\$0.00
Initial Application	\$31.00				\$5.00			\$36.00
Annual Renewal	\$29.00		\$2.00		\$1.00			\$32.00
Annual Renewal – Late 1 to 90 days	\$43.50		\$2.00		\$1.00			\$46.50
Annual Renewal – Late 90 to 365 days	\$58.00		\$2.00		\$1.00			\$61.00
Duplicate License / Renewal	\$25.00							\$25.00
Pit and Fissure Sealant Application	\$30.00							\$30.00
Pit and Fissure Sealant Renewal	\$18.00							\$18.00
Duplicate Pit Fissure Certificate	\$15.00							\$15.00
Nitrous Oxide Cons Sed Monitoring Application	\$12.00							\$12.00
Nitrous Oxide Monitoring Duplicate Certificate	\$10.00							\$10.00
Coronal Polishing Application	\$12.00							\$12.00
Duplicate Coronal Polishing Certificate	\$10.00							\$10.00
DENTAL LABORATORIES								
Application	\$120.00				\$5.00			\$125.00
Annual Renewal	\$131.00		\$3.00 <u>\$4.00</u>		\$1.00			\$135.00 <u>\$136.00</u>
Annual Renewal – Late 1 to 90 days	\$196.50		\$3.00 <u>\$4.00</u>		\$1.00			\$200.50 <u>\$201.50</u>
Annual Renewal – Late 90 to 365 days	\$262.00		\$3.00 <u>\$4.00</u>		\$1.00			\$266.00 <u>\$267.00</u>
Duplicate Certificate	\$25.00							\$25.00
OTHER								
Mobile Application	\$120.00							\$120.00

SCHEDULE OF FEES

	Board Fee	Professional Fee	Texas Online	Peer Assistance	Patient Protection	83rd Leg – HB 3201	84th Leg – SB 195	Total Fee
Annual Mobile Renewal	\$60.00							\$60.00
Duplicate Certificate Mobile Certificate	\$15.00							\$15.00
Dentist Intern / Resident Prescription Privileges	\$50.00						\$50.00 <u>\$13.00</u> <u>\$63.00</u>	\$100.00
Dental Assistant Course Provider	\$100.00							\$100.00
Jurisprudence	\$55.00 <u>\$54.00</u>							\$55.00 <u>\$54.00</u>
Licensure Verification without Seal	\$4.00							\$4.00
Licensure Verification with Seal	\$9.00							\$9.00
Criminal History Letter	\$25.00							\$25.00
Printed Copy – Rules and Regulations	\$20.00							\$20.00
Printed Copy – TX Occupations Code – Dental Practice Act	\$15.00							\$15.00
Printed Consumer Signage	\$5.00							\$5.00
Board Scores	\$10.00							\$10.00

Figure: 30 TAC §101.300(14)

$$E_H = \frac{(A_1 \times ER_1) + (A_2 \times ER_2)}{2}$$

Where:

E_H = The historical adjusted emissions for a facility.

A_1 = The facility's activity during the first of any two consecutive calendar years selected in accordance with §101.303(b)(2) of this title (relating to Emission Reduction Credit Generation and Certification), not to exceed any applicable local, state, or federal requirement.

ER_1 = The facility's emission rate during the first of any two consecutive calendar years selected in accordance with §101.303(b)(2) of this title, not to exceed any applicable local, state, or federal requirement.

A_2 = The facility's activity during the second of any two consecutive calendar years selected in accordance with §101.303(b)(2) of this title, not to exceed any applicable local, state, or federal requirement.

ER_2 = The facility's emission rate during the second of any two consecutive calendar years selected in accordance with §101.303(b)(2) of this title, not to exceed any local, state, or federal requirement.

Figure: 30 TAC §101.303(c)

$$ERC = BE - SE$$

Where:

ERC = The amount of emission reduction credits generated, in tenths of a ton per year.

BE = The facility's baseline emissions, which is the lowest of the historical adjusted emissions or the state implementation plan emissions.

SE = The facility's strategic emissions, which is the enforceable emission limit for the facility after implementation of the emission reduction strategy.

Figure: 30 TAC §101.306(b)(2)

$$EC = A \times (ER_p - ER_r)$$

Where:

EC = The amount of emission credits needed.

A = The maximum projected annual activity level during use period.

ER_p = The projected emission rate per unit of activity during use period.

ER_r = The emission rate per unit of activity required by Chapter 115 or 117 of this title (relating to Control of Air Pollution from Volatile Organic Compounds; and Control of Air Pollution from Nitrogen Compounds).

Figure: 30 TAC §101.306(b)(3)

$$ECs = \left[\sum_{i=1}^N (H_n \times R_n) - \sum_{i=1}^N (H_i \times R_i) \right] \times \frac{365}{2000}$$

Where:

ECs = The amount of emission credits needed.

N = The total number of emission units in the source cap.

i = Each emission unit in the source cap.

H_n = The maximum daily heat input, in million British thermal units (MMBtu) per day, expected for an emission unit during the use period.

R_n = The maximum emission factor, in pounds per MMBtu (lb/MMBtu), expected for an emission unit during the use period.

H_i = The actual daily heat input, in MMBtu per day, as calculated according to §§117.123(b)(1) or (2), 117.320(c)(1) - (3), 117.323(b)(1) or (2), 117.423(b)(1) or (2), 117.1020(c)(1) or (2), or 117.1220(c)(1) or (2) of this title.

R_i = The facility's emission factor, in lb/MMBtu, as defined in §§117.123(b)(1) or (2), 117.320(c)(1) - (3), 117.323(b)(1) or (2), 117.423(b)(1) or (2), 117.1020(c)(1) or (2), or 117.1220(c)(1) or (2) of this title.

Figure: 30 TAC §101.353(a)

$$A = \frac{LA_{HA} \times EF_{FINAL}}{2000}$$

Where:

A= The number of allowances in tenths of a ton;

LA_{HA} = The historical average level of activity, which:

(A) for a facility in operation on or before January 1, 1997, is the average level of activity, as certified by the executive director, for 1997, 1998, and 1999;

(B) for an existing facility that began operation after January 1, 1997, is:

(i) the level of activity authorized by the executive director until two consecutive calendar years of actual level of activity data is available, beginning after the end of the adjustment period; or

(ii) when two complete consecutive calendar years of actual level of activity data is available, beginning after the end of the adjustment period, the level of activity becomes the average of the facility's actual level of activity over those two consecutive calendar years of actual level of activity data; or

(C) for a facility using alternative emission specifications in §117.310(a)(17) or §117.2010(c)(6) of this title (relating to Emission Specifications for Attainment Demonstration; and Emission Specifications), is the lower of the level of activity as calculated in variable (A) or (B), or the level of activity limited by an enforceable limit or commitment necessary to qualify for an alternative emission specification in §117.310(a)(17) or §117.2010(c)(6) of this title.

EF_{final} = The emission factor, as listed in §§117.310, 117.1210, or 117.2010 of this title.

Figure: 30 TAC §101.370(15)

$$E_H = \frac{(A_1 \times ER_1) + (A_2 \times ER_2)}{2}$$

Where:

E_H = The historical adjusted emissions for a facility.

A_1 = The facility's activity during the first of any two consecutive calendar years selected in accordance with §101.373(b)(2) of this title (relating to Discrete Emission Reduction Credit Generation and Certification), not to exceed any applicable local, state, or federal requirement.

ER_1 = The facility's emission rate during the first of any two consecutive calendar years selected in accordance with §101.373(b)(2) of this title, not to exceed any applicable local, state, or federal requirement.

A_2 = The facility's activity during the second of any two consecutive calendar years selected in accordance with §101.373(b)(2) of this title, not to exceed any applicable local, state, or federal requirement.

ER_2 = The facility's emission rate during the second of any two consecutive calendar years selected in accordance with §101.373(b)(2) of this title, not to exceed any applicable local, state, or federal requirement.

Figure: 30 TAC §101.373(c)(1)

$$DERC = [SA \times (BER - SER)]$$

Where:

$DERC$ = The number of discrete emission reduction credits generated in tenths of a ton.

SA = Strategy activity, which is the facility's level of activity during the discrete emission reduction credit generation period.

BER = The facility's baseline emission rate, which is the lowest of the emission rate used in the historical adjusted emissions or the state implementation plan emissions.

SER = The facility's emission rate during the discrete emission reduction credit generation period.

Figure: 30 TAC §101.376(d)(2)(A)(i)

$$DERCs = \sum_{i=1}^N [(EH_i \times ER_i) - (H_i \times R_i)] \times \frac{d}{2000}$$

Where:

N = The total number of emission units in the source or system cap.

i = Each emission unit in the source or system cap.

EH_i = The expected new daily heat input, in MMBtu per day.

ER_i = The expected new emission rate, in lb/MMBtu.

H_i = The actual daily heat input, in million British thermal units (MMBtu) per day, as calculated according to §§117.123(b)(1), 117.320(c)(1) and (2), 117.323(b)(1), 117.423(b)(1), 117.1020(c)(1), 117.1220(c)(1), or 117.3020(c) of this title as applicable.

R_i = The actual emission rate, in pounds (lb)/MMBtu, as defined in §§117.123(b)(1), 117.320(c)(1) and (2), 117.323(b)(1), 117.423(b)(1), 117.1020(c)(1), 117.1220(c)(1), or 117.3020(c) of this title as applicable.

d = The number of days that emissions are expected to exceed the source or system cap.

Figure: 30 TAC §101.376(d)(2)(A)(ii)

$$DERCs = \sum_{i=1}^N [(EH_{Mi} \times ER_i) - (H_{Mi} \times R_i)] \times \frac{d}{2000}$$

Where:

N = The total number of emission units in the source or system cap.

i = Each emission unit in the source or system cap.

EH_{Mi} = The expected new maximum daily heat input, in MMBtu per day.

ER_i = The expected new emission rate, in lb/MMBtu.

H_{Mi} = The maximum daily heat input, in MMBtu/day, as defined in §§117.123(b)(2), 117.320(c)(3), 117.323(b)(2), 117.423(b)(2), 117.1020(c)(2), or 117.1220(c)(2) of this title as applicable.

R_i = In lb/MMBtu, is defined as in §§117.123(b)(2), 117.320(c)(3), 117.323(b)(2), 117.423(b)(2), 117.1020(c)(2), or 117.1220(c)(2) of this title as applicable.

d = The number of days in the use period.

Figure: 30 TAC §101.376(d)(2)(B)

$$DECs = (ELA) \times (EER - RER)$$

Where:

ELA = The expected level of activity.

EER = The expected emission rate per unit activity.

RER = The regulatory emission rate per unit activity.

Figure: 30 TAC §101.376(d)(2)(C)

$$DERCs = (ELA - PLA) \times (PER)$$

Where:

ELA = The expected level of activity.

PLA = The permitted level of activity.

PER = The permitted emission rate per unit activity.

Figure: 30 TAC §101.376(e)(2)(A)

$$DECs = (ALA) \times (AER - RER)$$

Where:

ALA = actual level of activity

AER = actual emission rate per unit activity

RER = regulatory emission rate per unit activity

Figure: 30 TAC §101.376(e)(2)(B)

$$DECs = (ALA - PLA) \times (AER)$$

Where:

ALA = actual level of activity

PLA = permitted level of activity

AER = permitted emission rate per unit activity

Figure: 30 TAC §115.420(b)(9)

Pounds of volatile organic compounds (VOC) per gallon of coating (minus water and exempt solvents) =

$$\frac{W_v}{(V_m - V_w - V_{es})}$$

Where:

W_v = weight of VOC, in pounds, contained in V_m gallons of coating

V_m = volume of coating, generally assumed to be one gallon

V_w = volume of water, in gallons, contained in V_m gallons of coating

V_{es} = volume of exempt solvents, in gallons, contained in V_m gallons of coating

Figure: 30 TAC §115.420(b)(10)

Pounds of volatile organic compounds (VOC) per gallon of solids =

$$\frac{W_v}{(V_m - V_v - V_w - V_{es})}$$

Where:

W_v = weight of VOC, in pounds, contained in V_m gallons of coating

V_m = volume of coating, generally assumed to be one gallon

V_v = volume of VOC, in gallons, contained in V_m gallons of coating

V_w = volume of water, in gallons, contained in V_m gallons of coating

V_{es} = volume of exempt solvents, in gallons, contained in V_m gallons of coating

Figure: 30 TAC §115.420(c)(1)(OO)

$$\text{Grams of Volatile Organic Compounds per Liter of Coating} = \frac{W_s - W_w - W_{es}}{V_s - V_w - V_{es}}$$

Where:

W_s = weight of total volatiles in grams

W_w = weight of water in grams

W_{es} = weight of exempt compounds in grams

V_s = volume of coating in liters

V_w = volume of water in liters

V_{es} = volume of exempt compounds in liters

Figure: 30 TAC §115.420(c)(1)(EEEE)

$$PP_c = \frac{\sum_{i=1}^n \frac{W_i}{MW_i} \times VP_i}{\frac{W_w}{MW_w} + \sum_{e=1}^n \frac{W_e}{MW_e} + \sum_{i=1}^n \frac{W_i}{MW_i}}$$

Where:

W_i = weight of the "i"th volatile organic compounds (VOC) compound, grams

W_w = weight of water, grams

W_e = weight of nonwater, non-VOC compound, grams

MW_i = molecular weight of the "i"th VOC compound, g/g-mole

MW_w = molecular weight of water, g/g-mole

MW_e = molecular weight of exempt compound, g/g-mole

PP_c = VOC composite partial pressure at 20 degrees Celsius, millimeters of mercury (mm Hg)

VP_i = vapor pressure of the "i"th VOC compound at 20 degrees Celsius, mm Hg

Figure: 30 TAC §115.420(c)(13)(A)

$$\text{VOC } T_{bc/cc} = \frac{\text{VOC}_{bc} + (2 \times \text{VOC}_{cc})}{3}$$

Where:

$\text{VOC } T_{bc/cc}$ = the volatile organic compounds (VOC) content, in pounds of VOC per gallon (less water and exempt solvent) as applied, in the basecoat/clearcoat system

VOC_{bc} = the VOC content, in pounds of VOC per gallon (less water and exempt solvent) as applied, of any given basecoat

VOC_{cc} is the VOC content, in pounds of VOC per gallon (less water and exempt solvent) as applied, of any given clearcoat

Figure: 30 TAC §115.420(c)(13)(G)

$$\text{VOC } T_{3\text{-stage}} = \frac{\text{VOC}_{bc} + \text{VOC}_{mc} + (2 \times \text{VOC}_{cc})}{4}$$

Where:

$\text{VOC } T_{3\text{-stage}}$ = the volatile organic compounds (VOC) content, in pounds of VOC per gallon (less water and exempt solvent) as applied, in the three-stage system

VOC_{bc} = the VOC content, in pounds of VOC per gallon (less water and exempt solvent) as applied, of any given basecoat

VOC_{mc} = the VOC content, in pounds of VOC per gallon (less water and exempt solvent) as applied, of any given midcoat

VOC_{cc} = the VOC content, in pounds of VOC per gallon (less water and exempt solvent) as applied, of any given clearcoat

Figure: 30 TAC §115.421(7)

Affected Operation	Pounds of Volatile Organic Compounds (VOC) per Gallon of Coating	Kilogram of VOC per Liter of Coating
Sheet Basecoat (Exterior and Interior) and Over-Varnish	2.8	0.34
Two-Piece Can Exterior (Base-Coat and Over-Varnish)	2.8	0.34
Two- and Three-Piece Can Interior Body Spray, Two-Piece Can Exterior End (Spray or Roll Coat)	4.2	0.51
Three-Piece Can Side-Seam Spray	5.5	0.66
End Sealing Compound	3.7	0.44

Figure: 30 TAC §115.421(8)(A)

Coating Type	Pounds of Volatile Organic Compounds (VOC) per Gallon of Coating	Kilogram of VOC per Gallon of Coating
Clear Coat or an Interior Protective Coating for Pails and Drums	4.3	0.52
Low-Bake Coating or Coating Using Air or Forced Air Driers	3.5	0.42
Extreme Performance Coating, Including Milling Maskants	3.5	0.42
All Other Coating Applications that Pertain to MMPP, Including High-Bake Coatings	3.0	0.36

Figure: 30 TAC §115.421(9)

Product Category	Pounds of volatile organic compounds (VOC) per 1,000 Square Feet of Coated Surface	Kilograms of VOC per 100 Meters Squared of Coated Surface
Printed Interior Wall Panels Made of Hardwood Plywood and Thin Particle Board (Less Than ¼ Inch) in Thickness	6.0	2.9
Natural Finish Hardwood Plywood Panels	12.0	5.8
Hardwood Paneling with Class II Finish (American National Standard Institute Standard PS-59-73)	10.0	4.8
Product Category	Pounds of volatile organic compounds (VOC) per 1,000 Square Feet of Coated Surface	Kilograms of VOC per 100 Meters Squared of Coated Surface

Figure: 30 TAC §115.421(10)(B)

**VOLATILE ORGANIC COMPOUND (VOC) LIMITS FOR SPECIALTY COATINGS
(IN GRAMS OF VOC PER LITER OF COATING, LESS WATER AND EXEMPT SOLVENT)**

Coating type	Limit:
Ablative Coating	600
Adhesion Promoter	890
Adhesive Bonding Primers:	
Cured at 250°F or below	850
Cured above 250°F	1030
Adhesives:	
Commercial Interior Adhesive	760
Cyanoacrylate Adhesive	1,020
Fuel Tank Adhesive	620
Nonstructural Adhesive	360
Rocket Motor Bonding Adhesive	890
Rubber-based Adhesive	850
Structural Autoclavable Adhesive	60
Structural Nonautoclavable Adhesive	850
Antichafe Coating	660
Bearing Coating	620
Caulking and Smoothing Compounds	850
Chemical Agent-Resistant Coating	550
Clear Coating	720
Commercial Exterior Aerodynamic	
Structure Primer	650
Compatible Substrate Primer	780
Corrosion Prevention Compound	710
Cryogenic Flexible Primer	645
Dry Lubricative Material	880
Cryoprotective Coating	600
Electric or Radiation-Effect Coating	800
Electrostatic Discharge and Electromagnetic	
Interference (EMI) Coating	800
Elevated-Temperature Skydrol-Resistant	
Commercial Primer	740
Epoxy Polyamide Topcoat	660
Fire-Resistant (interior) Coating	800
Flexible Primer	640
Flight-Test Coatings:	
Missile or Single Use Aircraft	420
All Other	840
Fuel-Tank Coating	720
High-Temperature Coating	850
Insulation Covering	740
Intermediate Release Coating	750
Lacquer	830
Maskants:	
Bonding Maskant	1,230

Critical Use and Line Sealer Maskant .	1,020
Seal Coat Maskant	1,230
Metallized Epoxy Coating	740
Mold Release	780
Optical Anti-Reflective Coating	750
Part Marking Coating	850
Pretreatment Coating	780
Rain Erosion-Resistant Coating	850
Rocket Motor Nozzle Coating	660
Scale Inhibitor	880
Screen Print Ink	840
Sealants:	
Extrudable/Rollable/Brushable Sealant .	280
Sprayable Sealant	600
Silicone Insulation Material	850
Solid Film Lubricant	880
Specialized Function Coating	890
Temporary Protective Coating	320
Thermal Control Coating	800
Wet Fastener Installation Coating	675
Wing Coating	850

Figure: 30 TAC §115.421(11)

Operation (Including Application, Flashoff, and Oven Areas)	Coating Delivered (Minus Water and Exempt Solvent) Pounds of Volatile Organic Compounds (VOC) per Gallon of Coating	Coating Delivered (Minus Water and Exempt Solvent) Kilogram of VOC per Liter of Coating	Solids Deposited Pounds of VOC per Gallon of Solids	Solids Deposited Kilograms per Liter of Solids
Prime Application (Body and Front-End Sheet Metal)	1.2	0.15	Not Applicable	Not Applicable
Primer Surfacer Application	2.8	0.34	15.1	1.81
Topcoat Application	2.8	0.34	15.1	1.81
Final Repair Application End Sealing Compound	4.8	0.58	*	*

* As an alternative to the emission limitation of 4.8 pounds of VOC per gallon of coating applied for final repair, if a source owner does not compile records sufficient to enable determination of a daily weighted average VOC content, compliance with the final repair emission limitation may be demonstrated each day by meeting a standard of 4.8 pounds of VOC per gallon of coating (minus water and exempt solvents) on an occurrence weighted average basis. Compliance with such alternative emission limitation shall be determined in accordance with the procedure specified in §115.425(3) of this title.

Figure: 30 TAC §115.421(12)

Coating Type (Minus Water and Exempt Solvent)	Pounds of Volatile Organic Compounds (VOC) per Gallon of Coating	Kilograms of VOC per Liter of Coating
Primer or Primer Surfacer	5.0	0.60
Precoat	5.5	0.66
Pretreatment	6.5	0.78
Single-Stage Topcoats	5.0	0.60
Basecoat or Clearcoat Systems	5.0	0.60
Three-Stage Systems	5.2	0.62
Specialty Coatings	7.0	0.84
Sealers	6.0	0.72
Wipe-Down Solutions	1.4	0.17

Figure: 30 TAC §115.421(14)

Coating Type (Minus Water and Exempt Solvent)	Pounds of Volatile Organic Compounds (VOC) per Gallon of Coating	Kilograms of VOC per Liter of Coating
Clear Topcoat	5.9	0.71
Wash Coat	6.5	0.78
Final Repair Coat	6.0	0.72
Semitransparent Wiping and Glazing Stain	6.6	0.79
Semitransparent Spray Stains and Toners	6.9	0.83
Opaque Ground Coats and Enamels	5.5	0.66
Clear Sealers	6.2	0.74
Clear Shellac	5.4	0.65
Opaque Shellac	5.0	0.60
Varnish	5.0	0.60
All Other Coatings	7.0	0.84

Figure: 30 TAC §115.421(15)(A)(iv)

$$0.9 (0.8 (TC_1 + TC_2 + \dots)) \geq (ER_{TC1}) (TC_1) + (ER_{TC2}) (TC_2) + \dots \text{ (Inequality 1)}$$

$$\begin{aligned} &0.9 \{1.8 (TC_1 + TC_2 + \dots)\} + \{1.9 (SE_1 + SE_2 + \dots)\} + \text{(Inequality 2)} \\ &\{9.0 (WC_1 + WC_2 + \dots)\} + \{1.2 (BC_1 + BC_2 + \dots)\} + \\ &\{0.791 (ST_1 + ST_2 + \dots)\} \geq \{ER_{TC1} (TC_1) + ER_{TC2} (TC_2) + \dots\} + \\ &\{ER_{SE1} (SE_1) + ER_{SE2} (SE_2) + \dots\} + \{ER_{WC1} (WC_1) + ER_{WC2} (WC_2) + \dots\} + \\ &\{ER_{BC1} (BC_1) + ER_{BC2} (BC_2) + \dots\} + \{ER_{ST1} (ST_1) + ER_{ST2} (ST_2) + \dots\} \end{aligned}$$

Where:

- TC_i = kilograms of solids of topcoat "i" used;
- SE_i = kilograms of solids of sealer "i" used;
- WC_i = kilograms of solids of washcoat "i" used;
- BC_i = kilograms of solids of basecoat "i" used;
- ST_i = liters of stain "i" used;
- ER_{TCi} = volatile organic compounds (VOC) content of topcoat "i" in kilograms of VOC per kilogram of solids, as delivered to the application system;
- ER_{SEi} = VOC content of sealer "i" in kilograms of VOC per kilogram of solids, as delivered to the application system;
- ER_{WCi} = VOC content of washcoat "i" in kilograms of VOC per kilogram of solids, as delivered to the application system;
- ER_{BCi} = VOC content of basecoat "i" in kilograms of VOC per kilogram of solids, as delivered to the application system; and
- ER_{STi} = VOC content of stain "i" in kilograms of VOC per kilogram of solids, as delivered to the application system.

Figure: 30 TAC §115.421(16)(A)

Coating Category	Grams of volatile organic compounds (VOC) per liter coating (minus water and exempt solvent) ^{a, b}	Pounds of VOC per gallon coating (minus water and exempt solvent) ^{a, b}	Grams of VOC per liter solids ^c when $t \geq 4.5^{\circ}\text{C}$ (40°F)	Grams of VOC per liter of solids ^c when $t < 4.5^{\circ}\text{C}$ (40°F) ^d
General use	340	2.83	571	728
Specialty:				
Air flask	340	2.83	571	728
Antenna	530	4.42	1,439	-----
Antifoulant	400	3.33	765	971
Heat resistant	420	3.5	841	1,069
High-gloss	420	3.5	841	1,069
High-temperature	500	4.17	1,237	1,597
Inorganic zing high-build	340	2.83	571	728
Military exterior	340	2.83	571	728
Mist	610	2.08	2,235	-----
Navigational aids	550	4.58	1,597	-----
Nonskid	340	2.83	571	728
Nuclear	420	3.50	841	1,069
Organic zinc	360	3.00	630	802
Pretreatment wash primer	780	6.50	11,095	-----
Repair and maintenance of thermoplastics	550	4.58	1,597	-----
Rubber camouflage	340	2.83	571	728
Sealant for thermal spray aluminum	610	5.08	2,235	-----
Special marking	490	4.08	1,178	-----
Specialty interior	340	2.83	571	728
Tack coat	610	5.08	2,235	-----
Undersea weapons systems	340	2.83	571	728
Weld-through preconstruction primer	650	5.42	2,885	-----

^aThe limits are expressed in two sets of equivalent units: grams per liter of coating (minus water and exempt solvent); and grams per liter of solids. Either set of limits may be used to demonstrate compliance.

^b To convert from grams/liter to pounds/gallon, multiply by (3.785 liters/gallon)(pound/453.6 grams) or 1/120. For compliance purposes, metric units define the standards.

^c VOC limits expressed in units of mass of VOC per volume of solids were derived from the VOC limits expressed in units of mass of VOC per volume of coating assuming the coatings contain no water or exempt compounds and that the volumes of all components within a coating are additive.

^d These limits apply during cold-weather time periods (i.e., temperatures below 4.5 degrees Celsius (40 degrees Fahrenheit)). Cold-weather allowances are not given to coatings in categories that permit less than 40% solids nonvolatiles) content by volume. Such coatings are subject to the same limits regardless of weather conditions.

Figure: 30 TAC §115.421(16)(B)(i)

$$R = \frac{(V_s)(\text{VOC limit}) - m_{\text{VOC}}}{D_{\text{th}}} \quad (\text{Equation 1})$$

Where:

R = Maximum allowable thinning ratio for a given batch (liters of thinner per liter of coating as supplied);

V_s = Volume fraction of solids in the batch as supplied (liter of solids per liter of coating as supplied);

VOC limit = Maximum allowable as-applied volatile organic compounds (VOC) content of the coating (grams of VOC per liter of solids);

m_{VOC} = VOC content of the batch as supplied (grams of VOC per liter of coating as supplied); and

D_{th} = Density of the thinner (grams per liter).

Figure: 30 TAC §115.421(16)(B)(ii)

$$V_s = \frac{1 - (m_{\text{volatiles}})}{D_{\text{avg}}} \quad (\text{Equation 2})$$

Where:

V_s = Volume fraction of solids in the batch (liter of solids per liter of coating);

$m_{\text{volatiles}}$ = Total volatiles in the batch, including volatile organic compounds (VOC), water, and exempt compounds (grams per liter of coating); and

D_{avg} = Average density of volatiles in the batch (grams per liter).

Table 1.

Automotive/Transportation Coating Category	Pounds of volatile organic compounds (VOC) per gallon coating	Pounds of VOC per gallon solids
Flexible Primer, Baked, Interior and Exterior Parts	4.5	11.58
Non-flexible Primer, Baked, Interior and Exterior Parts	3.5	6.67
Base Coats, Baked, Interior and Exterior Parts	4.3	10.34
Clear Coat, Baked, Interior and Exterior Parts	4.0	8.76
Non-Base Coat/Clear Coat, Baked, Interior and Exterior Parts	4.3	10.34
Primers, Air-Dried, Exterior Parts	4.8	13.80
Base Coat, Air-Dried, Exterior Parts	5.0	15.59
Clear Coat, Air-Dried, Exterior Parts	4.5	11.58
Non-Base Coat/ Clear Coat, Air-Dried, Exterior Parts	5.0	15.59
Air-Dried Coatings, Interior Parts	5.0	15.59
Touch-Up and Repair Coatings	5.2	17.72

Table 2.

Business Machine Coating Category	Pounds of VOC per gallon coating	Pounds of VOC per gallon solids
Primers	2.9	4.80
Topcoat	2.9	4.80
Texture Coat	2.9	4.80
Fog Coat	2.2	3.14
Touch-Up and Repair	2.9	4.80

Table 1.

General Adhesive Application Processes	Pounds of volatile organic compounds (VOC) per gallon adhesive
Reinforced Plastic Composite	1.7
Flexible Vinyl	2.1
Metal	0.3
Porous Material (Except Wood)	1.0
Rubber	2.1
Wood	0.3
Other Substrates	2.1

Table 2.

Specialty Adhesive Application Processes	Pounds of VOC per gallon adhesive
Ceramic Tile Installation	1.1
Contact Adhesive	2.1
Cove Base Installation	1.3
Floor Covering Installation (Indoor)	1.3
Floor Covering Installation (Outdoor)	2.1
Floor Covering Installation (Perimeter Bonded Sheet Vinyl)	5.5
Metal to Urethane/Rubber Molding or Casting	7.1
Motor Vehicle Adhesive	2.1
Motor Vehicle Weatherstrip Adhesive	6.3
Multipurpose Construction	1.7
Plastic Solvent Welding Acrylonitrile Butadiene Styrene (ABS)	3.3
Plastic Solvent Welding (Except ABS)	4.2
Sheet Rubber Lining Installation	7.1
Single-Ply Roof Membrane Installation/Repair (Except Ethylene Propylene Diene Monomer)	2.1
Structural Glazing	0.8
Thin Metal Laminating	6.5
Tire Repair	0.8
Waterproof Resorcinol Glue	1.4

Table 3.

Adhesive Primer Application Processes	Pounds of VOC per gallon adhesive
Motor Vehicle Glass-Bonding Primer	7.5
Plastic Solvent Welding Adhesive Primer	5.4
Single-Ply Roof Membrane Adhesive Primer	2.1
Other Adhesive Primer	2.1

Figure: 30 TAC §117.410(a)(7)(A)(ii)

$$E_{avg} = \frac{\sum_{i=1}^N (E_i \times PR_i)}{\sum_{i=1}^N PR_i}$$

Where:

E_{avg} = daily production rate weighted average nitrogen oxides (NO_x) emission rate, pounds per ton (lb/ton) of calcium oxide;

E_i = daily average NO_x emission rate for kiln i, lb/ton of calcium oxide;

i = each lime kiln at the site;

N = the total number of kilns at the site; and

PR_i = production rate of calcium oxide for kiln i, tons/day.

Figure: 43 TAC §215.153(c)(2)(A)

APPENDIX A-1

TEXAS DEALER											
VEHICLE OWNED BY JOHN DOE AUTO SALES											
THIS VEHICLE TEMPORARILY REGISTERED WITH STATE UNDER TAG #											
EXPIRES						-			-		
VIN _____											
FOR INTRANSIT, ROAD TESTING, DEMONSTRATION AND USE BY CHARITABLE ORGANIZATIONS											

DEALER'S TEMPORARY [DEALER] TAG – ASSIGNED TO SPECIFIC VEHICLE

Figure: 43 TAC §215.153(c)(2)(B)

APPENDIX A-2

<div style="display: flex; justify-content: space-between;"><div>●</div><div>TEXAS DEALER</div><div>●</div></div> <div style="display: flex; justify-content: space-between;"><div>VEHICLE OWNED BY JOHN DOE AUTO SALES</div><div></div></div> <div style="display: flex; justify-content: space-between;"><div>THIS VEHICLE TEMPORARILY REGISTERED WITH STATE UNDER TAG #</div><div></div></div>																			
<table border="1" style="width: 100%; height: 40px; border-collapse: collapse;"><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>																			
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		-			-														
<div style="display: flex; justify-content: space-between;"><div>●</div><div>Authorized Agent Tag FOR INTRANSIT, ROAD TESTING, DEMONSTRATION AND USE BY CHARITABLE ORGANIZATIONS</div><div>●</div></div>																			

DEALER'S TEMPORARY [DEALER] TAG – ASSIGNED TO AGENT

Figure: 43 TAC §215.153(c)(2)(C)

APPENDIX B-1

TEXAS BUYER																											
THIS VEHICLE TEMPORARILY REGISTERED WITH STATE UNDER TAG #																											
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VIN _____				SELLER: ABC FANTASTIC FABULOUS AUTO SALES																							

BUYER'S TEMPORARY TAG

APPENDIX B-2

TEXAS BUYER – INTERNET											
THIS VEHICLE TEMPORARILY REGISTERED WITH STATE UNDER TAG #											
4587650											
EXPIRES					-			-			
VIN _____											
SELLER: ABC FANTASTIC FABULOUS AUTO SALES											

PREPRINTED INTERNET-DOWN TEMPORARY [~~INTERNET-DOWN-BUYER'S~~] TAG

Figure: 43 TAC §215.153(c)(2)(E)

APPENDIX C-1

TEXAS CONVERTER
VEHICLE OWNED BY JOHN DOE CONVERSIONS
THIS VEHICLE TEMPORARILY REGISTERED WITH STATE UNDER PERMIT #

EXPIRES

-

-

VIN

FOR INTRANSIT, ROAD TESTING, DEMONSTRATION

CONVERTER'S TEMPORARY [CONVERTER] TAG

Figure: 43 TAC §215.250(h)(1)

<u>Dealer Discount with Sales Price:</u>	
MSRP	\$20,000
Less Dealer Discount	<u>1,000</u>
<u>Sales [Sale] Price</u>	\$19,000

Dealer Discount without Sales Price:
"\$1,000 Discount Off MSRP"

Figure: 43 TAC §215.250(h)(2)

Manufacturer's Customer Rebate with Sales Price:

Advertised Price	\$18,000
Less Rebate	<u>500</u>
<u>Sales [Sale] Price</u>	\$17,500

Manufacturer's Customer Rebate without Sales Price:

"\$500 Rebate Off MSRP"

Figure: 43 TAC §215.250(h)(3)

Manufacturer's Customer Rebate and Dealer Discount with Sales Price:

MSRP	\$20,000
Less Rebate	500
Less Dealer Discount	<u>500</u>
<u>Sales [Sale] Price</u>	\$19,000

Manufacturer's Customer Rebate and Dealer Discount without Sales Price:

"\$1,000 Savings Off MSRP (\$500 Rebate and \$500 Dealer Discount)"

Figure: 43 TAC §215.250(i)

Manufacturer's Option Package Discount with Sales Price:

Total <u>Motor</u> Vehicle Plus Options	\$10,995
Option Package Discount	1,000
MSRP	9,995
Less Rebate	500
Less Dealer Discount	<u>500</u>
<u>Sales [Sale] Price</u>	\$8,995

Manufacturer's Option Package Discount without Sales Price:

"Total Savings \$2,000 (\$1,000 Option Package Discount; \$500 rebate, and \$500 dealer discount off MSRP)"

Figure: 43 TAC §215.250(j)

Limited Rebate with Sales Price:

MSRP	<u>\$10,995</u> [\$9,995]
Less Rebate	<u>1000</u> [500]
Less Dealer Discount	<u>1000</u> [500]
<u>Sales [Sale] Price</u>	\$8,995

FIRST TIME BUYERS RECEIVE ADDITIONAL \$500 OFF

Limited Rebate without Sales Price:

Save \$5,000 Off MSRP

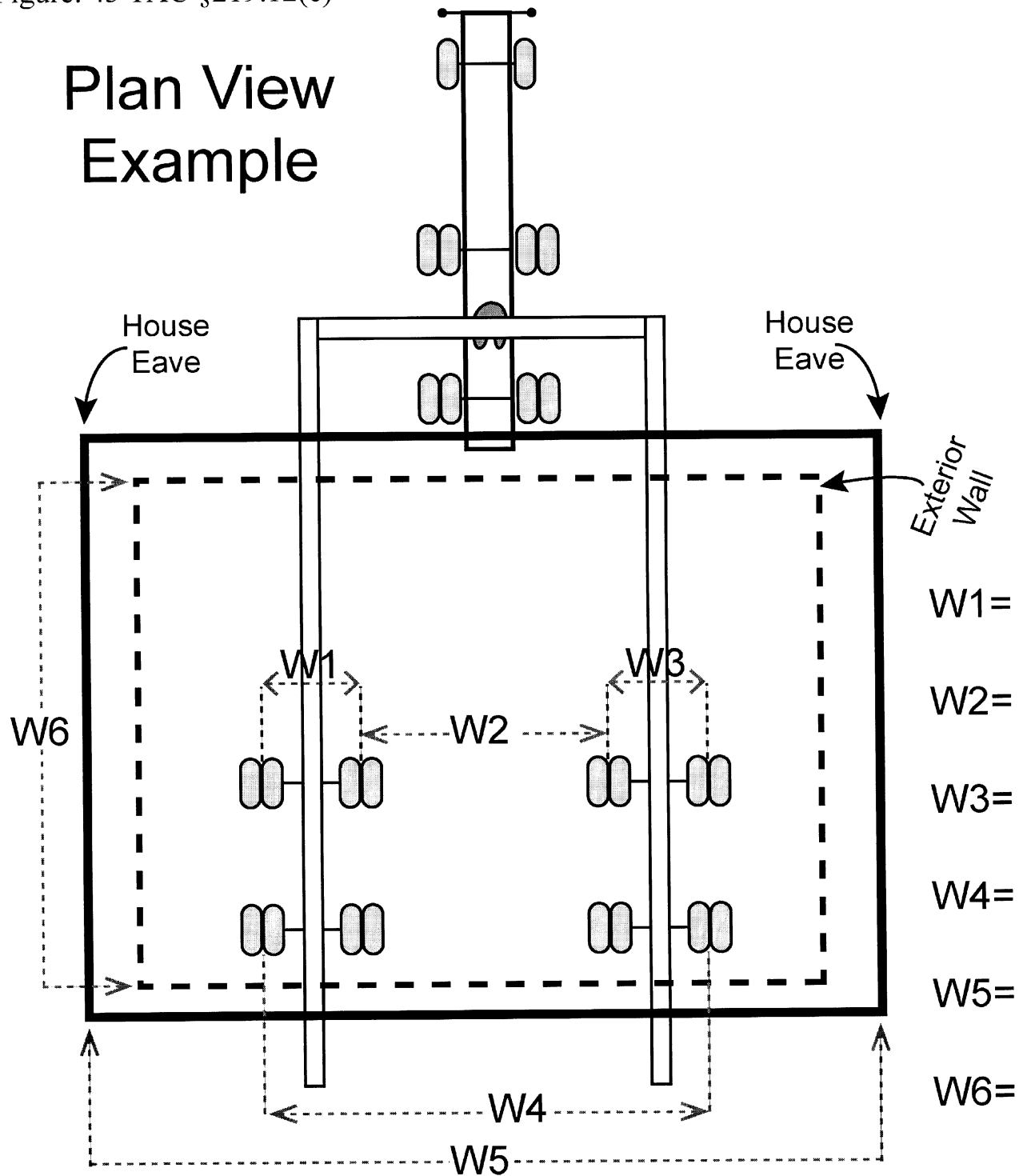
Save \$6,000 Off MSRP

w/\$1,000 Additional Owner Loyalty Cash*

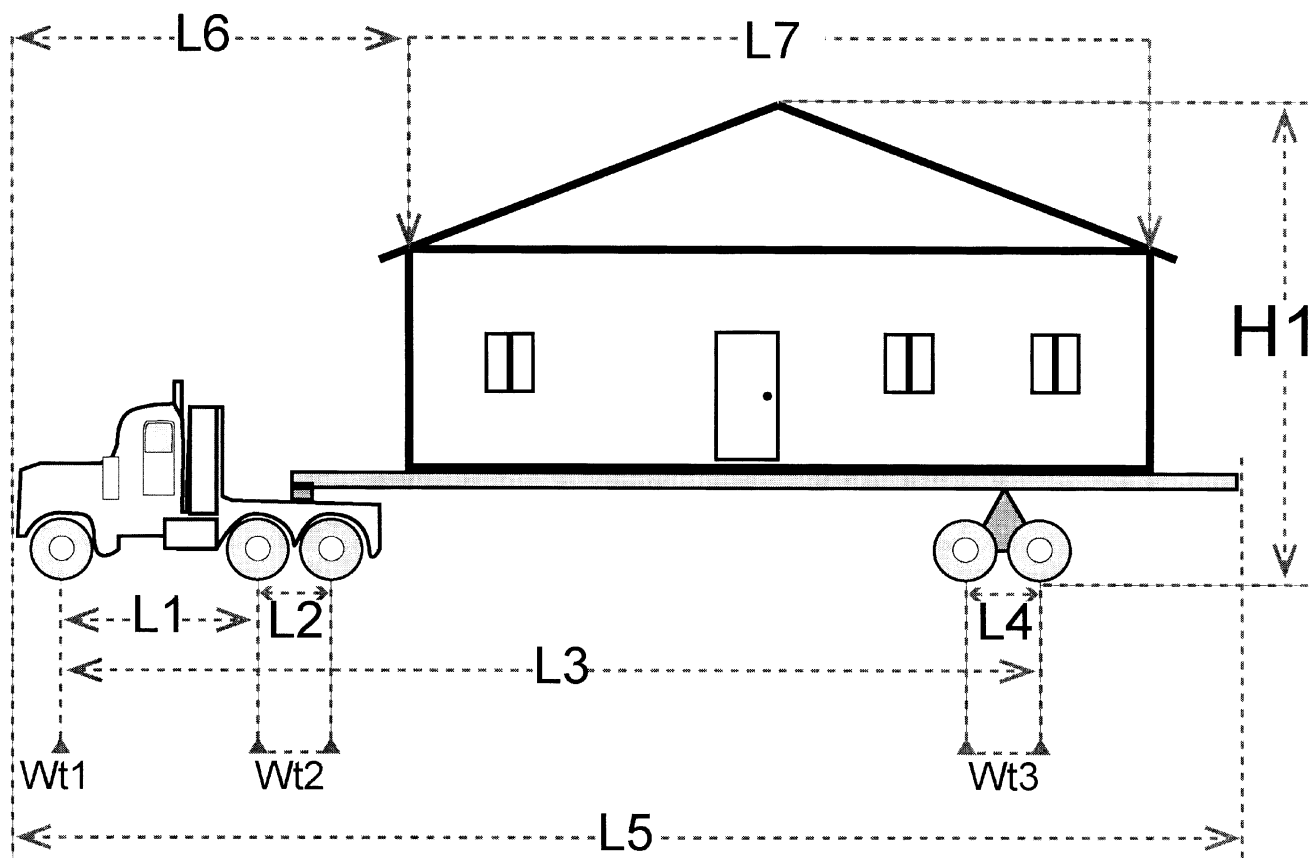
Savings includes \$2,000 rebate and
\$3,000 dealer discount

*Loyalty cash available to current owners of a 2010 or
newer model year (xyz) motor vehicle. You must
show proof of ownership. Trade-in not required.

Figure: 43 TAC §219.12(e)



Side View Example



L1= L2= L3= L4= L5= L6= L7= H1=

Weight (Wt)
Per Dolly Wt1= Wt2= Wt3=