

2015 DISCRETE EMISSION REDUCTION CREDIT (DERC) LIMIT

The DERC limit is the total daily amount of nitrogen oxides (NO_x) DERCs allowed for use in the Dallas Fort–Worth 1997 eight-hour ozone nonattainment area (DFW area) (Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, and Tarrant Counties). The DERC limit helps to ensure that DERC use will not interfere with the attainment and maintenance of the 1997 eight-hour ozone National Ambient Air Quality Standard (NAAQS) in the DFW area.

The 2015 DFW DERC limit is 42.78 tons per day (tpd) and the calculation of this value is detailed below.

Calculating the 2015 DERC Limit

Per 30 Texas Administrative Code §101.379(c)(2)(A), the DERC limit is based on the following equation.

$$\text{DERC Limit} = B + (C_1 - C_2) + (D_1 - D_2)$$

Each variable used to determine the 2015 DERC limit is detailed below.

Variable B

B = 2009 annual limit in DFW Eight-Hour Ozone Attainment Demonstration (AD) State Implementation Plan (SIP) Revision for 1997 eight-hour ozone standard. The value of **B** is constant.

- Details regarding **B** can be found in the [DFW AD SIP revision adopted December 10, 2008](#).¹

The value of **B** is **3.2 tpd**.

Variable C₁

C₁ = the estimated emission reductions associated with fleet turnover from mobile sources during the previous calendar year. Based on the definition of mobile sources in §101.370(17), **C₁** refers to the estimated emission reductions from replacing older, higher-emitting mobile sources (both on-road and non-road vehicles) with newer, lower-emitting mobile sources in the previous calendar year. The value of **C₁** changes annually.

- The 2014 through 2015 on-road and non-road fleet turnover values are 50.35 tpd and 8.24 tpd, respectively.

The value of **C₁** is **58.59 tpd**.

Variable C₂

C₂ = emission reduction associated with the contingency requirements for the current calendar year. This value is based on the contingency requirements specified in the latest adopted DFW AD or reasonable further progress SIP revision.

- The 2015 required contingency requirements of 18.91 tpd are specified in the [DFW AD SIP revision adopted December 7, 2011](#).²
- The DFW AD SIP revision relies on 0.1 tpd of fleet turnover reductions to replace potential emission reductions that may have been lost by adopting an exemption for certain ovens from the 30 TAC Chapter 117 emission specifications for attainment demonstration. Therefore, to be conservative, **C₂** was increased by 0.1 tpd to account for the Chapter 117 exemption. For additional details regarding the exemption and associated use of fleet turnover, please see the [DFW AD SIP revision adopted March 10, 2010](#).³

¹ Project No. 2008-016-SIP-NR, Section 4.2.6.8, Pages 4-1 & 4-2, http://www.tceq.state.tx.us/assets/public/implementation/air/sip/dfw/DFW_DERC_SIP_ADOPTION_Narrative_Final.pdf

² Project No. 2010-022-SIP-NR, Section 4.9, Table 4-3, Page 4-14, http://www.tceq.texas.gov/assets/public/implementation/air/sip/dfw/ad_2011/10022SIP_ado_111811.pdf

³ Project No. 2009-021-SIP-NR, Section 4.2.2, Table 4-3, Pages 4-2 and 4-9, http://www.tceq.state.tx.us/assets/public/implementation/air/sip/dfw/dfw_sip021809/PdfNo2_ADOPTIONPrefilingNarrativeDFW_RRC_SIP.pdf

2015 DERC Limit

The 2015 value of **C₂** is **19.01 tpd**.

Variables **D₁** and **D₂**

D₁ = DERCs generated on or after March 1, 2009 and approved for use in the previous calendar year.

D₂ = DERCs generated on or after March 1, 2009 and used in previous calendar year.

- Currently, there are no DERCs in the DFW area that were generated on or after March 1, 2009.

The value for both **D₁** and **D₂** is **0 tpd**.

2015 DERC Limit

Based on the values of the variables **B**, **C₁**, **C₂**, **D₁**, and **D₂** the 2015 DERC limit is **42.78 tpd**.

$$2015 \text{ DERC Limit} = B + (C_1 - C_2) + (D_1 - D_2) = 3.2 + (58.59 - 19.01) + (0 - 0) = 42.78 \text{ tpd}$$

- The 2015 DERC limit is higher than the 2014 DERC limit because the 2014 through 2015 on-road fleet turnover value is higher than the 2013 to 2014 on-road fleet turnover value. Both analyses were based on modeling software MOVES2010b. The reductions due to on-road Federal Motor Vehicle Control Program (FMVCP) are based on values that can continuously change in a nonlinear manner. Many factors influence the final value for the year-to-year incremental on-road FMVCP value. Specific factors that changed between calculation of the 2014 and 2015 DERC limit are included below.
 - The vehicle age distributions, vehicle populations, and vehicle miles traveled (VMT) distributions by vehicle type were updated to most recent data available.
 - The calendar years for analysis were 2014 and 2015 rather than 2013 and 2014. Fleet turnover to the various components of the FMVCP include one additional year.
 - Annual VMT growth was higher between 2014 and 2015 than 2013 and 2014.

Apportionment of the 2015 DERC Limit

Based on the 2015 DERC Intent to Use Applications received, the apportionment of the 2015 DERC limit is provided in Table 1: *2015 DERC Limit Apportionment*.

Table 1: 2015 DERC Limit Apportionment

Company Name	Site Name	County Name	Requested Total Use for 2015	Requested TPD Use	Approved TPD Use ^a
Luminant Generation Company, LLC	Lake Hubbard Steam Electric Station	Dallas	1,916.3 tons	5.0 tpd	5.25 tpd

^a The Requested Use is less than the Approved Use because the amount requested did not include the required 5% compliance margin for intents greater than 10 tons per use period.

Contact Information

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