Attachment A

Reasonable Further Progress Demonstration With MOVES2014 Spreadsheet

Attachment A - Sheet 1

Dallas-Fort Worth Eight-Hour Ozone Nonattainment Area

Ten Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

Reasonable Further Progress Demonstration with MOVES2014 Calculation Spreadsheet

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Attachment A - Sheet 2

2017 RFP Demonstration Analysis with MOVES2014

DFW Eight-Hour Ozone Nonattainment Area

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

2017 9 PDC RFP Demonstration Analysis with MOVES2014: To determine if the 2017 RFP requirements are met, the 2017 target level of emissions is compared to the 2017 controlled forecast inventory. The 2017 forecast inventory includes growth between the 2011 base year and the 2017 milestone year. The controlled forecast inventory has been reduced by subtracting the RFP control reductions between 2011 and 2017. If the 2011 controlled forecasted RFP emissions inventory (EI) is less than the 2011 RFP target level of emissions, then the 2011 RFP requirement is satisfied.

Line #	Description	NO_X (tpd)	VOC (tpd)
Line 1	Uncontrolled or Existing Controlled 9 PDC 2017 emissions forecast with growth	1144.79	864.31
Line 2	Creditable RFP control reductions, for 9 PDC, between 2011 and 2017	823.81	453.39
Line 3	Controlled 2017, 9 PDC RFP emissions forecast (Line 1 minus Line 2)	320.98	410.92
Line 4	Amount of NOx and VOC reduction to transfer to 1 NDC RFP demonstration	0.00	1.00
Line 5	Amount of NO_X reduction substitution (see Sheet 3)	0.00	0.00
Line 6	Controlled 2017, 9 PDC RFP forecast accounting for transfer and NO_X substitution (Line 3 plus Line 4 plus Line 5)	320.98	411.92
Line 7	2017 9 PDC RFP target level of emissions	363.11	426.67
Line 8	Excess (+) / Shortfall (-) (Line 7 minus Line 6)	42.13	14.75
Line 9	**Is controlled RFP EI less than target level of emissions?**	**Yes**	**Yes**

Notes:

1) To calculate the RFP controlled forecast for each milestone/attainment year, the total RFP creditable control strategy reductions to date (total RFP reductions from 2011 to the current RFP milestone year) are subtracted from the total uncontrolled RFP EI.

2) To calculate the final excess or shortfall of for each milestone/attainment year, the controlled RFP emissions forecast is subtracted from the RFP target level of emissions. The RFP target level of emissions for all milestone years is calculated on the "Calc Targets" page.

3) Excess emissions reductions (Line 8) may be used to provide a transportation conformity safety margin. The safety margin must be less than or equal to the excess emissions reductions.

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2017 RFP NOX Substitution Analysis with MOVES2014

DFW Eight-Hour Ozone Nonattainment Area

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

The NO_X substitution calculation includes six steps. First, calculate the percent target reduction for both VOC and NO_X by comparing the base year and target inventories. Second, calculate the percent actual reduction by comparing the base year and the actual inventory. Third, compare the percent required reduction to the percent actual reduction. If the percent actual reduction is greater than the percent required, then there are surplus reductions. If the percent actual reduction is less than the percent target, then there is a shortfall of reductions. The difference between the percent actual and the percent target reduction (when there are surplus reductions) is the amount that is available for substitution. For the fourth step, determine the percent NO_X needed for substitution. The minimum base year VOC percentage needed is equal to the percent base year shortfall in VOC plus the smallest increment possible, or 0.01. The respective NO_X percent is calculated using the NO_X base year inventory. The percent base year NO_X transfer should not exceed the percent base year NO_X surplus. The percent NO_X available to transfer is based upon the base year because the base year is the basis for the required reduction calculations. Fifth, convert the percent base year NO_X to a percent target NO_X using the percent base year NO_X from step 5 and the relative values of the base year and target NO_X inventory. The percent NO_X transfer is derived from milestone year target values because those are the values modified by NO_X transfer. The percent NO_X transfer is a percentage of the milestone year target NO_X value that is added back into the NO_X inventory and a percentage of the milestone year target VOC that is subtracted from the VOC inventory. For the sixth step, calculate the resulting tons per day (tpd) associated with the percent NO_X transfer. For NO_X, multiply the NO_X percent transfer and the NO_X milestone year target value. For VOC, multiply the percent NO_X transfer (which is the same as the percentage of the milestone year target VOC that is subtracted from the VOC inventory) and the VOC milestone year target value. The NO_X transfer amount (in tpd) is added to the NO_X actual (in tpd) inventory in the RFP demonstration calculation, and the VOC transfer amount (in tpd) is subtracted from the VOC actual (in tpd) inventory.

Line #	Description	NO_X	VOC
Line 1	2011 base year emissions (tpd)	439.14	478.47
Line 2	2017 controlled RFP EI (tpd)	320.98	410.92
Line 3	Total actual reductions for 2011 to 2017 (Line 1 minus Line 2) (tpd)	118.16	67.55
Line 4	Percent actual reductions for 2011 to 2017 (percent Line 3 is of Line 1) (%)	26.91	14.12
Line 5	2017 target RFP EI (tpd)	363.11	426.67
Line 6	2017 total target reductions for 2011 to 2017 (Line 1 minus Line 5) (tpd)	76.03	51.80
Line 7	Percent target reductions for 2011 to 2017 (percent Line 6 is of Line 1) (%)	17.31	10.83
Line 8	Percent surplus or shortfall (percent actual minus percent target, Line 4 - Line 7) (%)	9.59	3.29
Line 9	Percent surplus to transfer (NO_X percentage should be less than Line 8) (%)	0.00	0.00
Line 10	Convert the percent surplus to transfer to tons per day (tpd)	0.00	Only NOx Value Needed
Line 11	Calculate what percentage Line 10 is of target (this is the percentage to transfer) (%)	0.00	0.00
Line 12	**Tons equivalent to percent for transfer [Line 5 times (Line 10 divided by 100)] (tpd)**	**0.00**	**0.00**
Line 13	NO_X substitution amount okay? (Check to assure NO_X substitution does not exceed maximum available: Sheet 02, Line 9 must be greater than zero.)	Okay to Substitute	Okay to Substitute

Notes:

Line 7: The percent target reduction includes the 15% required reductions from 2011 through 2017, the 3% required reductions for each year after 2017, and accounts for noncreditable reductions betweeen 2011 and the RFP milestone year; therefore, the total percent reduction may not be exaclty 15 plus 3.

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2017 RFP Demonstration Analysis with MOVES2014

DFW Eight-Hour Ozone Nonattainment Area

One Newly Designated Nonattainment County: Wise

2017 1 NDC RFP Demonstration Analysis with MOVES2014: To determine if the 2017 RFP requirements are met, the 2017 target level of emissions is compared to the 2017 controlled forecast inventory. The 2017 forecast inventory includes growth between the 2011 base year and the 2017 milestone year. The controlled forecast inventory has been reduced by subtracting the RFP control reductions from 2011 to 2017. If the 2011 controlled forecasted RFP emissions inventory (EI) is less than the 2011 RFP target level of emissions, then the 2011 RFP requirement is satisfied. Since Wise County is newly designated, the entire 15% between 2011 and 2017 must be from VOC.

Line #	Description	NO_X (tpd)	VOC (tpd)
Line 1	Uncontrolled or existing controlled 1 NDC 2017 emissions forecast with growth	49.38	34.79
Line 2	Creditable RFP control reductions, for 1 NDC, between 2011 and 2017	18.96	5.30
Line 3	Controlled 2017, 1 NDC RFP emissions forecast (Line 1 minus Line 2)	30.42	29.49
Line 4	Amount of NOx and VOC reduction to transfer from 9 PDC RFP demonstration	0.00	-1.00
Line 5	Controlled 2017, 1 NDC RFP forecast accounting for transfer and NO_X substitution (Line 3 plus Line 4)	30.42	28.49
Line 6	2017 1 NDC RFP target level of emissions	33.36	29.27
Line 7	Excess (+) / Shortfall (-) (Line 6 minus Line 5)	2.94	0.78
Line 8	**Is controlled RFP EI less than target level of emissions?**	**Yes**	**Yes**

Notes:

1) To calculate the RFP controlled forecast for each milestone/attainment year, the total RFP creditable control strategy reductions to date (total RFP reductions from 2011 to the current RFP milestone year) are subtracted from the total uncontrolled RFP EI.

2) To calculate the final excess or shortfall of for each milestone/attainment year, the controlled RFP emissions forecast is subtracted from the RFP target level of emissions. The RFP target level of emissions for all milestone years is calculated on the "Calc Targets" page.

3) Excess emissions reductions (Line 7) may be used to provide a transportation conformity safety margin. The safety margin must be less than or equal to the excess emissions reductions.

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Attachment A - Sheet 5

9 PDC RFP Milestone Year Contingency Demonstration with MOVES2014

DFW Eight-Hour Ozone Nonattainment Area

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

Contingency Element Description	NO_X	VOC
2018 9 PDC adjusted base year (ABY) EI	402.35	448.77
Percent for 9 PDC 2017 milestone contingency calculation (total of 3%)	3.00	0.00
2017 to 2018 9 PDC required contingency reductions (ABY EI x (contingency percent))	**12.07**	**0.00**
Control reductions to meet contingency requirements		
Reserved reductions from 9 PDC 2018 RFP demonstration	12.07	0.00
Unspecified control 1	0.00	0.00
Unspecified control 2	0.00	0.00
Total 9 PDC contingency reductions	**12.07**	**0.00**
Contingency Excess (+) or Shortfall (-)	**0.00**	**0.00**
Are contingency reductions greater than required contingency reduction?	**Yes**	**Yes**

Note: The 2017 to 2018 9 PDC contingency reductions are held in reserve for all RFP milestone years in this RFP demonstration.

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1 NDC RFP Milestone Year Contingency Demonstration with MOVES2014

DFW Eight-Hour Ozone Nonattainment Area

One Newly Designated Nonattainment County: Wise

Contingency Element Description	NO_X	VOC
2018 1 NDC adjusted base year (ABY) EI	33.36	34.43
Percent for 1 NDC 2017 milestone contingency calculation (total of 3%)	3.00	0.00
2017 to 2018 1 NDC required contingency reductions (ABY EI x (contingency percent))	**1.00**	**0.00**
Control reductions to meet contingency requirements		
Reserved reductions from 1 NDC 2018 RFP demonstration	1.00	0.00
Unspecified control 1	0.00	0.00
Unspecified control 2	0.00	0.00
Total 1 NDC contingency reductions	**1.00**	**0.00**
Contingency Excess (+) or Shortfall (-)	**0.00**	**0.00**
Are contingency reductions greater than required contingency reduction?	**Yes**	**Yes**

Note: The 2017 to 2018 1 NDC contingency reductions are held in reserve for all RFP milestone years in this RFP demonstration.

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Attachment A - Sheet 7

9 PDC 2018 RFP Demonstration Analysis with MOVES2014

DFW Eight-Hour Ozone Nonattainment Area

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

2018 RFP 9 PDC Demonstration Analysis with MOVES2014: To determine if the 2018 RFP requirements are met, the 2018 target level of emissions is compared to the 2018 controlled forecast inventory. The 2018 forecast inventory includes growth between the 2011 base year and the 2018 milestone year. The controlled forecast inventory has been reduced by subtracting the RFP control reductions from 2011 to 2018. If the 2018 controlled forecasted RFP EI is less than the 2018 RFP target level of emissions the 2018 RFP requirement is satisfied.

Line #	Description	NO_X (tpd)	VOC (tpd)
Line 1	Uncontrolled or existing controlled 9 PDC 2018 emissions forecast with growth	1163.54	868.21
Line 2	Creditable 9 PDC RFP control reductions between 2011 and 2017	823.81	453.39
Line 3	Creditable 9 PDC RFP control reductions between 2017 and 2018	22.72	19.03
Line 4	Controlled 2018, 9 PDC RFP emissions forecast (Line 1 minus Line 2 minus Line 3)	317.01	395.79
Line 5	Amount of creditable reductions reserved for 9 PDC RFP milestone contingency	12.07	0.00
Line 6	Controlled 2018, 9 PDC RFP emission forecast with milestone contingency (Line 4 plus Line 5)	329.08	395.79
Line 7	Amount of NOx and VOC reduction to transfer to 1 NDC RFP demonstration	0.00	0.00
Line 8	Amount of NO_X reduction substitution (see Sheet 9)	0.00	0.00
Line 9	Controlled 2018, 9 PDC RFP forecast without reductions reserved for contingency, accounting for reduction transfer to newly designated county, and accounting for NOx substitution (Line 6 plus Line 7 plus Line 8)	329.08	395.79
Line 10	2018 9 PDC RFP target level of emissions	353.96	421.83
Line 11	Excess (+) / Shortfall (-) (Line 10 minus Line 9)	24.88	26.04
Line 12	**Is controlled RFP EI less than target level of emissions?**	**Yes**	**Yes**

Notes:

1) To calculate the RFP controlled forecast for each milestone/attainment year, the total RFP creditable control strategy reductions to date (total RFP reductions from 2011 to the current RFP milestone year) are subtracted from the total uncontrolled RFP EI.

2) To calculate the final excess or shortfall for each milestone/attainment year, the controlled RFP emissions forecast is subtracted from the RFP target level of emissions. The RFP target level of emissions for all milestone years is calculated on the "Calc Targets" page.

3) Excess emissions reductions (Line 11) may be used to provide a transportation conformity safety margin. The safety margin must be less than or equal to the excess emissions reductions.

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Attachment A - Sheet 8

1 NDC 2018 RFP Demonstration Analysis with MOVES2014

DFW Eight-Hour Ozone Nonattainment Area

One Newly Designated Nonattainment County: Wise

2018 1 NDC RFP Demonstration Analysis with MOVES2014: To determine if the 2018 RFP requirements are met, the 2018 target level of emissions is compared to the 2018 controlled forecast inventory. The 2018 forecast inventory includes growth between the 2011 base year and the 2018 milestone year. The controlled forecast inventory has been reduced by subtracting the RFP control reductions from 2011 to 2018. If the 2018 controlled forecasted RFP EI is less than the 2018 RFP target level of emissions the 2018 RFP requirement is satisfied.

Line #	Description	NO_X (tpd)	VOC (tpd)
Line 1	Uncontrolled or existing controlled 1 NDC 2018 emissions forecast with growth	46.50	29.77
Line 2	Creditable 1 NDC RFP control reductions between 2011 and 2017	18.96	5.30
Line 3	Creditable 1 NDC RFP control reductions between 2017 and 2018	0.97	0.30
Line 4	Controlled 2018 1 NDC RFP emissions forecast (Line 1 minus Line 2 minus Line 3)	26.57	24.17
Line 5	Amount of creditable reductions reserved for 1 NDC RFP milestone contingency	1.00	0.00
Line 6	Controlled 1 NDC RFP emission forecast with milestone contingency (Line 4 plus Line 5)	27.57	24.17
Line 7	Amount of NOx and VOC reduction to transfer from 9 PDC RFP demonstration	0.00	0.00
Line 8	Controlled RFP forecast without reductions reserved for contingency and accounting for NO_X substitution (Line 6 plus Line 7)	27.57	24.17
Line 9	1 NDC 2018 RFP target level of emissions	33.36	28.23
Line 10	Excess (+) / Shortfall (-) (Line 8 minus Line 7)	5.79	4.06
Line 11	**Is controlled RFP EI less than target level of emissions?**	**Yes**	**Yes**

Notes:

1) To calculate the RFP controlled forecast for each milestone/attainment year, the total RFP creditable control strategy reductions to date (total RFP reductions from 2011 to the current RFP milestone year) are subtracted from the total uncontrolled RFP EI.

2) To calculate the final excess or shortfall for each milestone/attainment year, the controlled RFP emissions forecast is subtracted from the RFP target level of emissions. The RFP target level of emissions for all milestone years is calculated on the "Calc Targets" page.

3) Excess emissions reductions (Line 10) may be used to provide a transportation conformity safety margin. The safety margin must be less than or equal to the excess emissions reductions.

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Attachment A - Sheet 9

2018 RFP NOX Substitution Analysis with MOVES2014

DFW Eight-Hour Ozone Nonattainment Area

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

The NO_X substitution calculation includes six steps. First, calculate the percent target reduction for both VOC and NO_X by comparing the base year and target inventories. Second, calculate the percent actual reduction by comparing the base year and the actual inventory. Third, compare the percent required reduction to the percent actual reduction. If the percent actual reduction is greater than the percent required, then there are surplus reductions. If the percent actual reduction is less than the percent target, then there is a shortfall of reductions. The difference between the percent actual and the percent target reduction (when there are surplus reductions) is the amount that is available for substitution. For the fourth step, determine the percent NO_X needed for substitution. The minimum base year VOC percentage needed is equal to the percent base year shortfall in VOC plus the smallest increment possible, or 0.01. The respective NO_X percent is calculated using the NO_X base year inventory. The percent base year NO_X transfer should not exceed the percent base year NO_X surplus. The percent NO_X available to transfer is based upon the base year because the base year is the basis for the required reduction calculations. Fifth, convert the percent base year NO_X to a percent target NO_X using the percent base year NO_X from step 5 and the relative values of the base year and target NO_X inventory. The percent NO_X transfer is derived from milestone year target values because those are the values modified by NO_X transfer. The percent NO_X transfer is a percentage of the milestone year target NO_X value that is added back into the NO_X inventory and a percentage of the milestone year target VOC that is subtracted from the VOC inventory. For the sixth step, calculate the resulting tons per day (tpd) associated with the percent NO_X transfer. For NO_X, multiply the NO_X percent transfer and the NO_X milestone year target value. For VOC, multiply the percent NO_X transfer (which is the same as the percentage of the milestone year target VOC that is subtracted from the VOC inventory) and the VOC milestone year target value. The NO_X transfer amount (in tpd) is added to the NO_X actual (in tpd) inventory in the RFP demonstration calculation, and the VOC transfer amount (in tpd) is subtracted from the VOC actual (in tpd) inventory.

Line #	Description	NO_X	VOC
Line 1	2011 9 PDC base year emissions (tpd)	405.55	444.09
Line 2	2018 9 PDC controlled RFP EI (tpd)	329.08	395.79
Line 3	Total actual reductions for 9 PDC 2011 to 2018 (Line 1 minus Line 2) (tpd)	76.47	48.30
Line 4	Percent actual reductions for 9 PDC 2011 to 2018 (percent Line 3 is of Line 1) (%)	18.86	10.88
Line 5	2018 9 PDC target RFP EI (tpd)	353.96	421.83
Line 6	9 PDC 2018 total target reductions for 2011 to 2018 (Line 1 minus Line 5) (tpd)	51.59	22.26
Line 7	Percent target reductions for 2011 to 2018 (percent Line 6 is of Line 1) (%)	12.72	5.01
Line 8	Percent surplus or shortfall (percent actual minus percent target, Line 4 minus Line 7) (%)	6.13	5.86
Line 9	Percent surplus to transfer (NO_X percentage should be less than Line 8) (%)	0.00	0.00
Line 10	Convert the percent surplus to transfer to tons per day (tpd)	0.00	Only NOx Value Needed
Line 11	Calculate what percentage Line 10 is of target (this is the percentage to transfer) (%)	0.00	0.00
Line 12	**Tons equivalent to percent for transfer [Line 5 times (Line 10 divided by 100)] (tpd)**	**0.00**	**0.00**
Line 13	NO_X substitution amount okay? (Check to assure NO_X substitution does not exceed maximum available: Sheet 05, Line 10 must be greater than zero)	Okay to Substitute	Okay to Substitute

Notes:

Line 7: The percent target reduction includes the 15% required reductions from 2011 through 2017, the 3% required reductions for each year after 2017, and accounts for noncreditable reductions betweeen 2011 and the RFP milestone year; therefore, the total percent reduction may not be exaclty 15 plus 3.

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Attachment A - Sheet 10

2019 Contingency Demonstration with MOVES2014 for RFP

DFW Eight-Hour Ozone Nonattainment Area

Nine Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

Summary 2019 Contingency for 2018 RFP

Contingency Element Description	NO_X	VOC
9 PDC 2018 ABY EI	402.35	448.77
Percent for contingency calculation (total of 3%)	3.00	0.00
2018 to 2019 required contingency reductions (ABY EI x (contingency percent))	**12.07**	**0.00**
Control reductions to meet contingency requirements		
Excess reductions from 2018 RFP demonstration	24.88	26.04
Subtract 2018 RFP demonstration motor vehicle emissions budget (MVEB) safety margin from excess reductions from 2018 RFP demonstration	-13.28	-6.76
Federal Motor Vehicle Control Program (FMVCP), inspection and maintenance (I/M), reformulated gasoline (RFG)/East Texas Regional Low RVP, and on-road TxLED (Note: This list of controls is the complete list for the 9 DFW counties. However, RFG is required, and all control reductions are modeled with RFG, only in the 4 core counties.)	30.05	12.45
Federal non-road mobile new vehicle certification standards, non-road RFG, and non-road TxLED	9.00	4.65
Total RFP demonstration contingency reductions	**50.64**	**36.38**
Contingency Excess (+) or Shortfall (-)	**38.57**	**36.38**

If changes are made to the enter reductions page, please assure the control reduction summary values above are consistent with the table below. The enter reductions page allows for the control reduction for a row to change. The table above adds particular rows from below.

Contingency Element Description	NO_X	VOC
9 PDC 2018 ABY EI	402.35	448.77
Percent for contingency calculation (total of 3%)	3.00	0.00
2018 to 2019 9 PDC RFP required contingency reductions (ABY EI x (contingency percent))	**12.07**	**0.00**
Calculate available reductions to meet contingency requirements: add excess 2018 control reductions; subtract MVEB safety margin adjustment; and add each 2018 to 2019 control reduction		
Excess reductions from 2018 RFP demonstration	24.88	26.04
Subtract 2018 RFP MVEB safety margin from excess reductions from 2018 RFP demonstration	-13.28	-6.76
Chapter 117 NOX controls	0.00	0.00
Chapter 115 Storage Tank Rule	0.00	0.00
Coating / printing rules	0.00	0.00
Portable fuel containers	0.00	0.00
Federal Motor Vehicle Control Program (FMVCP)	35.42	14.13
Inspection and Maintenance (I/M)	-1.13	-0.58
Reformulated Gasoline (RFG)/East Texas Regional Low RVP	-3.93	-1.10
On-road TxLED	-0.31	0.00
Tier I and II locomotive NOX standards	0.00	0.00
Small non-road spark ignition (SI) engines (Phase I)	-0.09	0.76
Heavy duty non-road engines	1.92	0.77
Tiers 2 and 3 non-road diesel engines	2.92	0.39
Small non-road SI engines (Phase II)	0.06	0.73
Large non-road SI & recreational marine	1.39	0.98
Non-road TxLED	-0.46	0.00
Non-road RFG	-0.01	0.01
Tier 4 non-road diesel engines	3.17	0.17
Diesel recreational marine	0.00	0.00

Small SI (Phase III)	0.10	0.84
Chapter 117 NOX area source engine controls	0.00	0.00
Drilling rig low emission diesel	0.00	0.00
Total 2019 9 PDC RFP contingency reductions	**50.64**	**36.38**
Contingency Excess (+) or Shortfall (-)	**38.57**	**36.38**
Are contingency reductions greater than required contingency reduction?	**Yes**	**Yes**

Note 1: The ten county DFW area includes counties with federal RFG and counties with Texas Regional Low RVP. The four counties with RGF are: Collin, Dallas Denton and Tarrant. The six counties with East Texas Regional Low RVP are: Ellis, Johnson, Kaufman, Parker, Rockwall and Wise.

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2019 Contingency Demonstration with MOVES2014 for RFP
DFW Eight-Hour Ozone Nonattainment Area
One Newly Designated Nonattainment County: Wise

Summary 2019 Contingency for 2018 RFP

Contingency Element Description	NO_X	VOC
1 NDC 2018 ABY EI	33.36	34.43
Percent for contingency calculation (total of 3%)	3.00	0.00
2018 to 2019 required contingency reductions (ABY EI x (contingency percent))	**1.00**	**0.00**
Calculate available reductions to meet contingency requirements: add excess 2018 control reductions; subtract MVEB safety margin adjustment; and add each 2018 to 2019 control reduction		
Excess reductions from 2018 RFP demonstration	5.79	4.06
Subtract 2018 RFP demonstration motor vehicle emissions budget (MVEB) safety margin from excess reductions from 2018 RFP demonstration	0.00	0.00
Federal Motor Vehicle Control Program (FMVCP), East Texas Regional Low RVP, and on-road TxLED	0.78	0.19
Federal non-road mobile new vehicle certification standards, non-road TxLED	0.12	0.05
Total RFP demonstration contingency reductions	**6.69**	**4.30**
Contingency Excess (+) or Shortfall (-)	**5.69**	**4.30**

If changes are made to the enter reductions page, please assure the control reduction summary values above are consistent with the table below. The enter reductions page allows for the control reduction for a row to change. The table above adds particular rows from below.

Contingency Element Description	NO_X	VOC
1 NDC 2018 ABY EI	33.36	34.43
Percent for contingency calculation (total of 3%)	3.00	0.00
2018 to 2019 1 NDC RFP required contingency reductions (ABY EI x (contingency percent))	**1.00**	**0.00**
Calculate available reductions to meet contingency requirements: add excess 2018 control reductions; subtract MVEB safety margin adjustment; and add each 2018 to 2019 control reduction		
Excess reductions from 2018 RFP demonstration	5.79	4.06
Subtract 2018 RFP MVEB safety margin from excess reductions from 2018 RFP demonstration[1]	0.00	0.00
Chapter 117 NOX controls	0.00	0.00
Chapter 115 Storage Tank Rule	0.00	0.00
Coating / printing rules	0.00	0.00
Portable fuel containers	0.00	0.00
Federal Motor Vehicle Control Program (FMVCP)	0.85	0.21
Inspection and Maintenance (I/M)	0.00	0.00
Reformulated Gasoline (RFG)/East Texas Regional Low RVP	-0.06	-0.02
On-road TxLED	-0.01	0.00
Tier I and II locomotive NOX standards	0.00	0.00
Small non-road spark ignition (SI) engines (Phase I)	0.00	0.01
Heavy duty non-road engines	0.01	0.01
Tiers 2 and 3 non-road diesel engines	0.02	-0.01
Small non-road SI engines (Phase II)	0.00	0.00
Large non-road SI & recreational marine	0.01	0.02
Non-road TxLED	-0.01	0.00
Non-road RFG	0.00	0.00
Tier 4 non-road diesel engines	0.09	0.00
Diesel recreational marine	0.00	0.00
Small SI (Phase III)	0.00	0.02

Chapter 117 NOX area source engine controls	0.00	0.00
Drilling rig low emission diesel	0.00	0.00
Total 2019 1 NDC RFP contingency reductions	**6.69**	**4.30**
Contingency Excess (+) or Shortfall (-)	**5.69**	**4.30**
Are contingency reductions greater than required contingency reduction?	**Yes**	**Yes**

Note 1: The MVEBs are calculated for with all ten counties in one group, the 10 NAC. The entire amount reserved for the MVEB safety margin is deducted from the available reductions for the 9 PDC 2019 RFP contingency. The amount for the safety margin for the 1 NDC is therefore zero because it is accounted for in the 9 PDC calculations.

Note 2: The ten county DFW area includes counties with federal RFG and counties with Texas Regional Low RVP. The four counties with RGF are: Collin, Dallas Denton and Tarrant. The six counties with East Texas Regional Low RVP are: Ellis, Johnson, Kaufman, Parker, Rockwall and Wise.

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Attachment A - Sheet 12

2019 Contingency Demonstration with MOVES2014 for 2018 Attainment

Ten Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

Summary 2019 Contingency for 2018 Attainment Demonstration

Contingency Element Description	NO_X	VOC
2018 10 NAC ABY EI	435.71	483.20
Percent for contingency calculation (total of 3%)	3.00	0.00
2018 to 2019 AD required contingency reductions (ABY EI x (contingency percent))	**13.07**	**0.00**
Control reductions to meet contingency requirements		
Excess reductions from 2018 attainment demonstration	0.00	0.00
Subtract reductions reserved for 2018 attainment demonstration MVEB safety margin	0.00	0.00
Federal Motor Vehicle Control Program (FMVCP), inspection and maintenance (I/M), reformulated gasoline (RFG), and on-road TxLED (Note: This list of controls is the complete list for the 9 DFW counties. However, RFG is required, and all control reductions are modeled with RFG, only in the 4 core counties.)	30.83	12.64
Federal non-road mobile new vehicle certification standards, non-road RFG, and non-road TxLED	9.12	4.70
Total attainment demonstration contingency reductions	**39.95**	**17.34**
Contingency Excess (+) or Shortfall (-)	**26.88**	**17.34**

If changes are made to the enter reductions page please assure the control reduction summary values above are consistent with the table below. The enter reductions page allows for the control reductio for a row to change. The table above adds particular rows from below.

Ten Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

Contingency Element Description	NO_X	VOC
2018 10 NAC ABY EI	435.71	483.20
Percent for AD contingency calculation (total of 3%)	3.00	0.00
2018 to 2019 required AD contingency reductions (ABY EI x (contingency percent))	**13.07**	**0.00**
Control reductions to meet contingency requirements		
Add excess reductions from 2018 attainment demonstration	0.00	0.00
Subtract 2018 attainment demonstration MVEB safety margin	0.00	0.00
Chapter 117 NOX controls	0.00	0.00
Chapter 115 Storage Tank Rule	0.00	0.00
Coating / printing rules	0.00	0.00
Portable fuel containers	0.00	0.00
Federal Motor Vehicle Control Program (FMVCP)	36.27	14.34
Inspection and Maintenance (I/M)	-1.13	-0.58
Reformulated Gasoline (RFG)/East Texas Regional Low RVP	-3.99	-1.12
On-road TxLED	-0.32	0.00
Tier I and II locomotive NOX standards	0.00	0.00
Small non-road spark ignition (SI) engines (Phase I)	-0.09	0.77
Heavy duty non-road engines	1.93	0.78
Tiers 2 and 3 non-road diesel engines	2.94	0.38
Small non-road SI engines (Phase II)	0.06	0.73
Large non-road SI & recreational marine	1.40	1.00
Non-road TxLED	-0.47	0.00
Non-road RFG	-0.01	0.01
Tier 4 non-road diesel engines	3.26	0.17
Diesel recreational marine	0.00	0.00

Small SI (Phase III)	0.10	0.86
Chapter 117 NOX area source engine controls	0.00	0.00
Drilling rig low emission diesel	0.00	0.00
Total attainment demonstration contingency reductions	**39.95**	**17.34**
Contingency Excess (+) or Shortfall (-)	**26.88**	**17.34**

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Attachment A - Sheet 13

Calculations: 2017 RFP MVEBs with MOVES2014

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X (tons per day)

Ten Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

Summary 2017 MVEB

Description	NO_X	VOC
2017 9 PDC on-road emissions projection without post-1990 FCAA controls	860.90	416.88
2017 1 NDC on-road emissions projection without post-1990 FCAA controls	18.28	4.89
2017 10 NAC on-road emissions projection without post-1990 FCAA controls	879.18	421.77
Total 2017 10 NAC on-road mobile source RFP control reductions	731.53	350.12
2017 10 NAC On-road mobile controlled inventory	147.65	71.65
Transportation conformity safety margin	14.77	7.17
Excess emissions reduction for 2017	45.07	15.54
Is excess emissions enough for safety margin?	yes	yes
2017 10 NAC MVEB with safety margin	**162.42**	**78.82**

Note: If safety margin is > than excess emission reductions modify percent safety margin input on the "Enter % for RFP Cont & Conf SM" page.

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Go To Calculate On-road Reductions

Attachment A - Sheet 14

Calculations: 2018 RFP MVEBs with MOVES2014

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X (tons per day)

Ten Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

Summary 2018 MVEB

Description	NO_X	VOC
2018 9 PDC on-road emissions projection without post-1990 FCAA controls	881.68	427.12
2018 1 NDC on-road emissions projection without post-1990 FCAA controls	18.74	5.01
2018 10 NAC on-road emissions projection without post-1990 FCAA controls	900.42	432.13
Total 2018 10 NAC on-road mobile source RFP control reductions	767.60	364.54
2018 10 NAC On-road mobile controlled inventory	132.82	67.59
Transportation conformity safety margin	13.28	6.76
Excess emissions reduction for 2018	30.67	30.10
Is excess emissions enough for safety margin?	yes	yes
2018 10 NAC MVEB with safety margin	**146.10**	**74.35**

Note: If safety margin is > than excess emission reductions modify percent safety margin input on the "Enter % for RFP Cont & Conf SM" page.

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Attachment A - Sheet 15

RFP Non-creditable Reductions Calculations

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X

Two County Groups: Nine Nonattainment Counties; Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant; and One Nonattainment County; Wise County

9 PDC Calculation of Non-creditable NO_X and VOC Reductions

RFP Analysis Year	On-Road Mobile ABY EI NO_X	On-Road Mobile ABY EI VOC	Non-Creditable Fleet Turn Over Reductions NO_X	Non-Creditable Fleet Turn Over Reductions VOC	Non-Creditable Reduction Description
2011, 9 PDC	736.68	355.31	N/A	N/A	
2017, 9 PDC	734.59	360.35	2.09	-5.04	Pre-1990 CAA fleet turnover reduction baseline 2011 through 2017 for 9 PDC
2018, 9 PDC	733.48	359.99	1.11	0.36	Pre-1990 CAA fleet turnover reduction 2017 through 2018 for 9 PDC

1 NDC Calculation of Non-creditable NO_X and VOC Reductions

RFP Analysis Year	On-Road Mobile ABY EI NO_X	On-Road Mobile ABY EI VOC	Non-Creditable Fleet Turn Over Reductions NO_X	Non-Creditable Fleet Turn Over Reductions VOC	Non-Creditable Reduction Description
2011, 1 NDC	16.34	4.34	N/A	N/A	
2017, 1 NDC	16.11	4.40	0.23	-0.06	Pre-1990 CAA fleet turnover reduction baseline 2011 through 2017 for 1 NDC
2018, 1 NDC	16.11	4.39	0.00	0.01	Pre-1990 CAA fleet turnover reduction 2017 through 2018 for 1 NDC

Notes:

1) Non-creditable fleet turnover corrections: The reductions due to the the 1992 low RVP rule and the pre-1990 FMVCP are not creditable toward the RFP requirements. Both non-creditable rules only affect on-road mobile sources. The non-creditable reductions for each RFP milestone year are the difference between the on-road mobile ABY EI for each RFP milestone year and the on-road mobile 2011 RFP ABY EI. Since the pre-1990 FMVCP fleet turnover corrections are cumulative in the MOVES model, the noncreditable reductions from previous milestone years must be subtracted from the current milestone year to obtain the non-creditable reductions between milestone years. The FMVCP non-creditable reductions are used to calculate the target value for each RFP milestone year.

2) ABY inventories: The on-road mobile ABY inventories for each milestone/attainment year are calculated using 2011 vehicle miles traveled (VMT) and MOVES emission factors for each RFP analysis year with only the effects of pre-1990 FCAA controls turned on. The pre-1990 FCAA controls include the 1992 Reid Vapor Pressure control and the pre-1990 on-road mobile source FMVCP controls.

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Quantify the Reductions to Meet the Initial 15%, the 3% per Year and Contingency Requirements with MOVES2014

DFW Eight-Hour Ozone Nonattainment Area

Two County Groups: Nine Nonattainment Counties; Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant; and One Nonattainment County; Wise County

The Initial 15%, the 3% per Year and Contingency Requirements: The FCAA mandates that an initial 15%, plus a 3% per year starting in year seven, VOC reduction, net of growth, occur from the baseline year 2011 through the attainment year. The reductions must be demonstrated for the six-year period from baseline 2011 through 2017, and every three years after 2017 through the attainment year, 2018. The one DFW county added to the nonattainment area under the 2008 eight-hour standard (newly designated counties (NDC)) must demonstrate an initial 15% reduction of VOC from the baseline 2011 through 2017. NO_X may be substituted for VOC for the nine DFW counties designated nonattainment under both the one-hour and 1997 eight-hour standards (previously designated counties (PDC)) from the baseline 2011 through 2017. After 2017, NO_X reductions may be substituted for VOC reductions for all ten DFW eight-hour nonattainment counties. An additional 3% reduction must be demonstrated as a contingency measure for the one-year period following the attainment year, 2019. The division of the percent reductions between VOC and NO_X are entered in the data entry sheet with tab name "Enter % for RFP Cont & Conf SM."

9 PDC Calculation of Required 15% VOC Reductions and 3% per Year NO_X and VOC Reductions

RFP Analysis Year	Total Percent Reduction Requirement	Percent NO_X	Percent VOC	RFP ABY EI NO_X (tpd)	RFP ABY EI VOC (tpd)	Required Reductions NO_X (tpd)	Required Reductions VOC (tpd)
2011	N/A	N/A	N/A	405.55	444.09	N/A	N/A
2017	15.0	10.0	5.0	403.46	449.13	40.35	22.46
2018	3.0	2.0	1.0	402.35	448.77	8.05	4.49
2019 Contingency	3.0	3.0	0.0	402.35	448.77	12.07	0.00

1 NDC Calculation of Required 15% VOC Reductions and 3% per Year NO_X and VOC Reductions

RFP Analysis Year	Total Percent Reduction Requirement	Percent NO_X	Percent VOC	RFP ABY EI NO_X (tpd)	RFP ABY EI VOC (tpd)	Required Reductions NO_X (tpd)	Required Reductions VOC (tpd)
2011	N/A	N/A	N/A	33.59	34.38	N/A	N/A
2017	15.0	N/A	15.0	33.36	34.44	N/A	5.17
2018	3.0	0.0	3.0	33.36	34.43	0.00	1.03
2019 Contingency	3.0	3.0	0.0	33.36	34.43	1.00	0.00

Notes:

1) The ABY EI is the base year (BY) emissions minus the non-creditable on-road mobile reductions. It is calculated by adding the BY EI for point, area and non-road to the ABY for on-road. When the ABY EI is multiplied by the required percent reduction, the result is the reductions required.

2) On-road mobile ABY inventories: The on-road mobile ABY inventories for each milestone/attainment year are calculated using 2011 VMT and MOVES emission factors for each RFP analysis year with only the effects of pre-1990 FCAA controls turned on. The pre-1990 FCAA controls include the 1992 Reid Vapor Pressure control and the pre-1990 on-road mobile source FMVCP controls. The on-road mobile ABY EI is equal to the on-road mobile BY EI minus the non-creditable FMVCP reductions.

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Attachment A - Sheet 17

Target Calculations 9 PDC with MOVES2014: 2017 and 2018 9 PDC RFP Target Level of NO_X and VOC Emissions

DFW 2008 Eight-Hour Ozone Nonattainment Area

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

Post-2011 target level of NO_X emissions: The NO_X target level is calculated by subtracting the reductions necessary to meet: the initial 15% from the bseline 2011 through 2017; the post-2017 3% per year; and the non-creditable fleet (FMVCP/RVP) reductions from the previous milestone/attainment year target level.

RFP Post-2011 9 PDC Target Level of NO_X Emissions				
RFP Milestone Year	**Previous Target**	**FMVCP Non-creditable Reduction**	**Post-2011 Percent Reduction Requirement NO_X (tpd)**	**NO_X Target (tpd)**
2011 Base Year, 9 PDC	N/A	N/A	N/A	405.55
2017, 9 PDC	405.55	2.09	40.35	363.11
2018, 9 PDC	363.11	1.11	8.05	353.96

Post-2011 target level of VOC emissions: The VOC target level is calculated by subtracting the reductions necessary to meet: the initial 15% from the bseline 2011 through 2017; the post-2017 3% per year; and the non-creditable fleet (FMVCP/RVP) reductions from the previous milestone/attainment year target level.

RFP Post-2011 9 PDC Target Level of VOC Emissions				
RFP Milestone Year	**Previous Target**	**FMVCP Non-creditable Reduction**	**Post-2011 Percent Reduction Requirement VOC (tpd)**	**VOC Target (tpd)**
2011 Base Year, 9 PDC	N/A	N/A	N/A	444.09
2017, 9 PDC	444.09	-5.04	22.46	426.67
2018, 9 PDC	426.67	0.36	4.49	421.83

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Attachment A - Sheet 18

Target Calculations 1 NDC with MOVES2014: 2017 and 2018 1 NDC RFP Target Level of NO_X and VOC Emissions

DFW 2008 Eight-Hour Ozone Nonattainment Area

One Newly Designated Nonattainment County: Wise

Post-2011 target level of NO_X emissions: The NO_X target level is calculated by subtracting the reductions necessary to meet: the initial 15% from the bseline 2011 through 2017 (for the 1 NDC the initial 15% is all from VOC); the post-2017 3% per year; and the non-creditable fleet (FMVCP/RVP) reductions from the previous milestone/attainment year target level.

RFP Post-2011 1 NDC Target Level of NO_X Emissions				
RFP Milestone Year	**Previous Target**	**FMVCP Non-creditable Reduction**	**Post-2011 Percent Reduction Requirement NO_X (tpd)**	**NO_X Target (tpd)**
2011 Base Year, 1 NDC	N/A	N/A	N/A	33.59
2017, 1 NDC	33.59	0.23	N/A	33.36
2018, 1 NDC	33.36	0.00	0.00	33.36

Post-2011 target level of VOC emissions: The VOC target level is calculated by subtracting the reductions necessary to meet: the initial 15% from the bseline 2011 through 2017 (for the 1 NDC the initial 15% is all from VOC); the post-2017 3% per year; and the non-creditable fleet (FMVCP/RVP) reductions from the previous milestone/attainment year target level.

'RFP Post-2011 1 NDC Target Level of VOC Emissions				
RFP Milestone Year	**Previous Target**	**FMVCP Non-creditable Reduction**	**Post-2011 Percent Reduction Requirement VOC (tpd)**	**VOC Target (tpd)**
2011 Base Year, 1 NDC	N/A	N/A	N/A	34.38
2017, 1 NDC	34.38	-0.06	5.17	29.27
2018, 1 NDC	29.27	0.01	1.03	28.23

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Attachment A - Sheet 19

Enter RFP NO_X and VOC Percentage Reductions, Contingency Percents and Safety Margin

DFW Eight-Hour Ozone Nonattainment Area

Ten Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

A 15% reduction is required for DFW for the period from the bseline 2011 through 2017, with an additional 3% per year until the attainment year. The total reduction for 2017 includes an initial 15% reduction (VOC only) for the one NDC and an initial 15% reduction (NO_X may be substituted for VOC) for the nine PDCs. The total reduction for 2018 is 3% (3% times 1). Input percentage of NO_X and VOC reductions to be used to demonstrate RFP for 2017 and 2018. Only a NOx value needs to input. The VOC percent will be calculated automatically based upon the total required and the percent NO_X to be used.

RFP NO_X and VOC Percent Reductions for Milestone and Attainment Years			
RFP Milestone Year	NO_X %	VOC %	Total Percent
2017, 1 Newly Designated County	N/A	15	15
2017, 9 Previously Designated Counties	10	5	15
2018, 1 Newly Designated County	0	3	3
2018, 9 Previously Designated Counties	2	1	3

3% 2017 to 2018 and 2018 to 2019 contingency measures reductions are required. Input only the percent of the reductions that will be from NO_X. The VOC value will be calculated automatically as 3 minus the NO_X percent. For 2018 to 2019 a 3% contingency is also required for the attainment demonstration.

'RFP and Attainment Demonstration NO_X and VOC Percent Reductions for 2018 and 2019 Contingency			
Contingency Year	NO_X %	VOC %	Total Percent
9 PDC RFP Milestone Contingency	3	0	3
1 NDC RFP Milestone Contingency	3	0	3
9 PDC RFP 2018 to 2019	3	0	3
1 NDC RFP 2018 to 2019	3	0	3
AD 2018 to 2019	3	0	3

If there are excess RFP control reductions, a transportation conformity safety margin is allowed. The safety margin amount must be less than or equal to the excess reductions. Entering a percent safety margin below will update the MVEB calculation to include the percent safety margin entered. The amount of the safety margin will automatically be checked to verify it is less than the excess emissions. If not, then a "check safety margin" will appear in the MVEB calculation box.

RFP Milestone Year	**Conformity Safety Margin NO_X %**	**Conformity Safety Margin VOC %**
2017	10	10
2018	10	10

Enter the percent of the NO_X milestone year target that will be transferred to VOC. Only the NO_X percent is entered. The VOC percent is automatically equal to the NO_X percent transfer. These vales are used on Sheets 03 and 06 in the NO_X transfer calculations.

NOx Substitution	**Percent of NO_X Reductions to Transfer to Percent VOC Reductions**	**Percent of VOC Reductions Transferred from Percent NO_X Reductions**
2017	0.00	0.00
2018	0.00	0.00

Emissions Reductions to Transfer from 9 PDC to 1 NDC	Tons of NOx Reductions to Transfr from 9 PDC to 1 NDC	Tons of VOC Reductions to Transfr from 9 PDC to 1 NDC
2017	0.00	1.00
2018	0.00	0.00

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Attachment A - Sheet 20

Enter Aircraft Emissions Inventory
DFW Eight-Hour Ozone Nonattainment Area

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
9 PDC 2011	9.81	9.58	0.23	2.34	3.01	3.00	0.01	0.33
9 PDC 2017	11.39	11.13	0.26	2.28	3.36	3.36	0.00	0.00
9 PDC 2018	12.02	11.77	0.25	2.08	3.62	3.53	0.09	2.49

One Newly Designated Nonattainment County: Wise

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
1 NDC 2011	0.01	0.01	0.00	0.00	0.01	0.01	0.00	0.00
1 NDC 2017	0.01	0.01	0.00	0.00	0.01	0.01	0.00	0.00
1 NDC 2018	0.02	0.02	0.00	0.00	0.02	0.02	0.00	0.00

Total Ten Ozone Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
10 County Total 2011	9.82	9.59	0.23	2.34	3.02	3.01	0.01	0.33
10 County Total 2017	11.40	11.14	0.26	2.28	3.37	3.37	0.00	0.00
10 County total 2018	12.04	11.79	0.25	2.08	3.64	3.55	0.09	2.47

Notes:

1) 1 NDC means the one newly designated county and indicates values are for the one county in the DFW ozone nonattainment area that was newly designated under the2008 eight-hour ozone standard. Includes: Wise County.

2) 9 PDC means the nine existing nonattainment counties and indicates values are for the nine counties that had an existing designation under the one-hour ozone standard and/or under the 1997 eight-hour ozone standard. Includes: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant Counties.

3) 10 County Total means the values include the ten DFW area nonattainment counties designated under the 2008 eight-hour ozone standard.

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Attachment A - Sheet 21

Enter Area Source Emissions Inventory

DFW Eight-Hour Ozone Nonattainment Area

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

'RFP Analysis Year	Existing Controlled Emissions (as of 2011) NOX (tpd)	Post-2011 Controlled NOX (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Existing Controlled Emissions (as of 2011) VOC (tpd)	Post-2011 Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
9 PDC 2011	30.48	30.48	0.000	0.0	263.30	263.30	0.000	0.0
9 PDC 2017	30.91	30.91	0.000	0.0	266.15	266.15	0.000	0.0
9 PDC 2018	29.93	29.93	0.000	0.0	258.70	258.70	0.000	0.0

One Newly Designated Nonattainment County: Wise

'RFP Analysis Year	Existing Controlled Emissions (as of 2011) NOX (tpd)	Post-2011 Controlled NOX (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Existing Controlled Emissions (as of 2011) VOC (tpd)	Post-2011 Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
1 NDC 2011	12.14	12.14	0.00	0.00	29.18	29.18	0.00	0.00
1 NDC 2017	9.72	9.72	0.00	0.00	23.74	23.74	0.00	0.00
1 NDC 2018	7.44	7.44	0.00	0.00	19.17	19.17	0.00	0.00

Total Ten Ozone Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

'RFP Analysis Year	Existing Controlled Emissions (as of 2011) NOX (tpd)	Post-2011 Controlled NOX (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Existing Controlled Emissions (as of 2011) VOC (tpd)	Post-2011 Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
10 County Total 2011	42.62	42.62	0.00	0.00	292.48	292.48	0.00	0.00
10 County Total 2017	40.63	40.63	0.00	0.00	289.89	289.89	0.00	0.00
10 County total 2018	37.37	37.37	0.00	0.00	277.87	277.87	0.00	0.00

Notes:

1) 1 NDC means the one newly designated county and indicates values are for the one county in the DFW ozone nonattainment area that was newly designated under the2008 eight-hour ozone standard. Includes: Wise County.

2) 9 PDC means the nine existing nonattainment counties and indicates values are for the nine counties that had an existing designation under the one-hour ozone standard and/or under the 1997 eight-hour ozone standard. Includes: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant Counties.

3) 10 County Total means the values include the ten DFW area nonattainment counties designated under the 2008 eight-hour ozone standard.

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Attachment A - Sheet 22

Enter Biogenic Emissions Inventory

DFW Eight-Hour Ozone Nonattainment Area

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
9 PDC 2011	See Note 1	N/A	N/A	N/A	See Note 1	N/A	N/A	N/A

One Newly Designated Nonattainment County: Wise

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
1 NDC 2011	See Note 1	N/A	N/A	N/A	See Note 1	N/A	N/A	N/A

Total Ten Ozone Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
10 County Total 2011	See Note 1	N/A	N/A	N/A	See Note 1	N/A	N/A	N/A

Notes:

1) Beginning with the Air Emissions Reporting Requirements (December 2008), the emissions required to be reported no longer include emissions from biogenic sources. Therefore, as of the 2011 reporting year, the comprehensive triennial emissions inventory no longer includes emissions from biogenic sources.
The RFP demonstrations are based upon the emissions from anthropogenic sources. The guidance for RFP calculations shows the first step is to subtract the emissions from biogenic sources from the total base year emissions to obtain the total anthropogenic emission inventory. As of 2011, under the AERR, the base year emissions do not include biogenic sources and already represent the total anthropogenic emissions. In this case, step one of the RFP process is not needed, and the emissions from biogenic sources is unnecessary. This RFP SIP revision: uses a base year of 2011; does not require subtraction of the biogenic emissions in Step One of the RFP calculation process; and does not include quantification of emissions from biogenic sources.

2) 1 NDC means the one newly designated county and indicates values are for the one county in the DFW ozone nonattainment area that was newly designated under the2008 eight-hour ozone standard. Includes: Wise County.

3) 9 PDC means the nine existing nonattainment counties and indicates values are for the nine counties that had an existing designation under the one-hour ozone standard and/or under the 1997 eight-hour ozone standard. Includes: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant Counties.

4) 10 County Total means the values include the ten DFW area nonattainment counties designated under the 2008 eight-hour ozone standard.

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Attachment A - Sheet 23

Enter Oil and Gas Production, Drilling Rigs, Diesel Engines Emissions Inventory

DFW Eight-Hour Ozone Nonattainment Area

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
9 PDC 2011	23.34	12.46	10.880	46.6	2.61	0.61	2.000	76.6
9 PDC 2017	18.69	9.98	8.710	46.6	2.09	0.49	1.600	76.6
9 PDC 2018	14.19	7.57	6.620	46.7	1.59	0.37	1.220	76.7

One Newly Designated Nonattainment County: Wise

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
1 NDC 2011	3.73	1.99	1.74	46.65	0.42	0.10	0.32	76.19
1 NDC 2017	2.90	1.55	1.35	46.55	0.33	0.08	0.25	75.76
1 NDC 2018	2.22	1.18	1.04	46.85	0.25	0.06	0.19	76.00

Total Ten Ozone Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
10 County Total 2011	27.07	14.45	12.62	46.62	3.03	0.71	2.32	76.57
10 County Total 2017	21.59	11.53	10.06	46.60	2.42	0.57	1.85	76.45
10 County total 2018	16.41	8.75	7.66	46.68	1.84	0.43	1.41	76.63

Notes:

1) 1 NDC means the one newly designated county and indicates values are for the one county in the DFW ozone nonattainment area that was newly designated under the2008 eight-hour ozone standard. Includes: Wise County.

2) 9 PDC means the nine existing nonattainment counties and indicates values are for the nine counties that had an existing designation under the one-hour ozone standard and/or under the 1997 eight-hour ozone standard. Includes: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant Counties.

3) 10 County Total means the values include the ten DFW area nonattainment counties designated under the 2008 eight-hour ozone standard.

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Attachment A - Sheet 24

Enter Ground Support Equipment (GSE) Emissions Inventory

DFW Eight-Hour Ozone Nonattainment Area

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
9 PDC 2011	1.14	0.80	0.340	29.8	0.33	0.23	0.100	30.3
9 PDC 2017	0.51	0.35	0.160	31.4	0.15	0.10	0.050	33.3
9 PDC 2018	0.30	0.21	0.090	30.0	0.09	0.08	0.010	11.1

One Newly Designated Nonattainment County: Wise

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
1 NDC 2011	0.00	0.00	0.00	#DIV/0!	0.00	0.00	0.00	#DIV/0!
1 NDC 2017	0.00	0.00	0.00	#DIV/0!	0.00	0.00	0.00	#DIV/0!
1 NDC 2018	0.00	0.00	0.00	#DIV/0!	0.00	0.00	0.00	#DIV/0!

Total Ten Ozone Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
10 County Total 2011	1.14	0.80	0.34	29.82	0.33	0.23	0.10	30.30
10 County Total 2017	0.51	0.35	0.16	31.37	0.15	0.10	0.05	33.33
10 County total 2018	0.30	0.21	0.09	30.00	0.09	0.08	0.01	11.11

Notes:

1) 1 NDC means the one newly designated county and indicates values are for the one county in the DFW ozone nonattainment area that was newly designated under the2008 eight-hour ozone standard. Includes: Wise County.

2) 9 PDC means the nine existing nonattainment counties and indicates values are for the nine counties that had an existing designation under the one-hour ozone standard and/or under the 1997 eight-hour ozone standard. Includes: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant Counties.

3) 10 County Total means the values include the ten DFW area nonattainment counties designated under the 2008 eight-hour ozone standard.

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Attachment A - Sheet 25

Enter Locomotive Emissions Inventory

DFW Eight-Hour Ozone Nonattainment Area

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
9 PDC 2011	26.98	21.75	5.230	19.4	1.79	1.24	0.550	30.7
9 PDC 2017	22.34	18.01	4.330	19.4	1.27	0.88	0.390	30.7
9 PDC 2018	23.01	17.82	5.190	22.6	1.31	0.85	0.460	35.1

One Newly Designated Nonattainment County: Wise

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
1 NDC 2011	3.27	2.51	0.76	23.24	0.22	0.14	0.08	36.36
1 NDC 2017	2.58	1.98	0.60	23.26	0.14	0.09	0.05	35.71
1 NDC 2018	2.66	1.94	0.72	27.07	0.15	0.08	0.07	46.67

Total Ten Ozone Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
10 County Total 2011	30.25	24.26	5.99	19.80	2.01	1.38	0.63	31.34
10 County Total 2017	24.92	19.99	4.93	19.78	1.41	0.97	0.44	31.21
10 County total 2018	25.67	19.76	5.91	23.02	1.46	0.93	0.53	36.30

Notes:

1) 1 NDC means the one newly designated county and indicates values are for the one county in the DFW ozone nonattainment area that was newly designated under the2008 eight-hour ozone standard. Includes: Wise County.

2) 9 PDC means the nine existing nonattainment counties and indicates values are for the nine counties that had an existing designation under the one-hour ozone standard and/or under the 1997 eight-hour ozone standard. Includes: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant Counties.

3) 10 County Total means the values include the ten DFW area nonattainment counties designated under the 2008 eight-hour ozone standard.

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Attachment A - Sheet 26

Enter NONROAD Categories Emissions Inventory

DFW Eight-Hour Ozone Nonattainment Area

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
9 PDC 2011	127.53	68.39	59.140	46.4	122.77	48.66	74.110	60.4
9 PDC 2017	153.34	42.07	111.270	72.6	143.57	32.18	111.390	77.6
9 PDC 2018	156.51	39.01	117.500	75.1	145.95	31.32	114.630	78.5

One Newly Designated Nonattainment County: Wise

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
1 NDC 2011	5.18	2.34	2.84	54.83	2.08	1.00	1.08	51.92
1 NDC 2017	5.68	1.17	4.51	79.40	2.27	0.64	1.63	71.81
1 NDC 2018	5.71	1.04	4.67	81.79	2.29	0.61	1.68	73.36

Total Ten Ozone Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
10 County Total 2011	132.71	70.73	61.98	46.70	124.85	49.66	75.19	60.22
10 County Total 2017	159.02	43.24	115.78	72.81	145.84	32.82	113.02	77.50
10 County total 2018	162.22	40.05	122.17	75.31	148.24	31.93	116.31	78.46

Notes:

1) 1 NDC means the one newly designated county and indicates values are for the one county in the DFW ozone nonattainment area that was newly designated under the2008 eight-hour ozone standard. Includes: Wise County.

2) 9 PDC means the nine existing nonattainment counties and indicates values are for the nine counties that had an existing designation under the one-hour ozone standard and/or under the 1997 eight-hour ozone standard. Includes: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant Counties.

3) 10 County Total means the values include the ten DFW area nonattainment counties designated under the 2008 eight-hour ozone standard.

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Attachment A - Sheet 27

Enter On-road Mobile Emissions Inventory

DFW Eight-Hour Ozone Nonattainment Area

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
9 PDC 2011	736.68	230.75	505.930	68.7	355.31	99.39	255.920	72.0
9 PDC 2017	860.90	144.08	716.820	83.3	416.88	70.41	346.470	83.1
9 PDC 2018	881.68	129.61	752.070	85.3	427.12	66.43	360.690	84.4

One Newly Designated Nonattainment County: Wise

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
1 NDC 2011	16.34	5.99	10.35	63.34	4.34	1.81	2.53	58.29
1 NDC 2017	18.28	3.57	14.71	80.47	4.89	1.24	3.65	74.64
1 NDC 2018	18.74	3.21	15.53	82.87	5.01	1.16	3.85	76.85

Total Ten Ozone Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
10 County Total 2011	753.02	236.74	516.28	68.56	359.65	101.20	258.45	71.86
10 County Total 2017	879.18	147.65	731.53	83.21	421.77	71.65	350.12	83.01
10 County total 2018	900.42	132.82	767.60	85.25	432.13	67.59	364.54	84.36

Notes:

1) 1 NDC means the one newly designated county and indicates values are for the one county in the DFW ozone nonattainment area that was newly designated under the 2008 eight-hour ozone standard. Includes: Wise County.

2) 9 PDC means the nine existing nonattainment counties and indicates values are for the nine counties that had an existing designation under the one-hour ozone standard and/or under the 1997 eight-hour ozone standard. Includes: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant Counties.

3) 10 County Total means the values include the ten DFW area nonattainment counties designated under the 2008 eight-hour ozone standard.

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Attachment A - Sheet 28

Enter ABY On-Road Mobile Emissions Inventory

DFW Eight-Hour Ozone Nonattainment Area

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

RFP Analysis Year	ABY NO_X (tpd)	ABY VOC (tpd)
9 PDC 2011	736.68	355.31
9 PDC 2017	734.59	360.35
9 PDC 2018	733.48	359.99

One Newly Designated Nonattainment County: Wise

RFP Analysis Year	ABY NO_X (tpd)	ABY VOC (tpd)
1 NDC 2011	16.34	4.34
1 NDC 2017	16.11	4.40
1 NDC 2018	16.11	4.39

Total Ten Ozone Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

RFP Analysis Year	ABY NO_X (tpd)	ABY VOC (tpd)
10 NAC Total 2011	753.02	359.65
10 NAC Total 2017	750.70	364.75
10 NAC Total 2018	749.59	364.38

Notes:

1) 1 NDC means the one newly designated county and indicates values are for the one county in the DFW ozone nonattainment area that was newly designated under the2008 eight-hour ozone standard. Includes: Wise County.

2) 9 PDC means the nine existing nonattainment counties and indicates values are for the nine counties that had an existing designation under the one-hour ozone standard and/or under the 1997 eight-hour ozone standard. Includes: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant Counties.

3) 10 County Total means the values include the ten DFW area nonattainment counties designated under the 2008 eight-hour ozone standard.

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Go To Calculate Noncreditable Reductions

Attachment A - Sheet 29

Enter Point Source Emissions Inventory

DFW Eight-Hour Ozone Nonattainment Area

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

'RFP Analysis Year	Existing Controlled Emissions (as of 2011) NOX (tpd)	Post-2011 Controlled NOX (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Existing Controlled Emissions (as of 2011) VOC (tpd)	Post-2011 Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
9 PDC 2011	31.34	31.34	0.00	0.0	27.66	27.66	0.00	0.0
9 PDC 2017	46.71	46.71	0.00	0.0	30.84	30.84	0.00	0.0
9 PDC 2018	45.90	45.90	0.00	0.0	29.83	29.83	0.00	0.0

One Newly Designated Nonattainment County: Wise

'RFP Analysis Year	Existing Controlled Emissions (as of 2011) NOX (tpd)	Post-2011 Controlled NOX (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Existing Controlled Emissions (as of 2011) VOC (tpd)	Post-2011 Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
1 NDC 2011	8.61	8.61	0.00	0.00	2.14	2.14	0.00	0.00
1 NDC 2017	10.21	10.21	0.00	0.00	3.41	3.41	0.00	0.00
1 NDC 2018	9.71	9.71	0.00	0.00	2.88	2.88	0.00	0.00

Total Ten Ozone Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

'RFP Analysis Year	Existing Controlled Emissions (as of 2011) NOX (tpd)	Post-2011 Controlled NOX (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Existing Controlled Emissions (as of 2011) VOC (tpd)	Post-2011 Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
10 County Total 2011	39.95	39.95	0.00	0.00	29.80	29.80	0.00	0.00
10 County Total 2017	56.92	56.92	0.00	0.00	34.25	34.25	0.00	0.00
10 County total 2018	55.61	55.61	0.00	0.00	32.71	32.71	0.00	0.00

Notes:

1) 1 NDC means the one newly designated county and indicates values are for the one county in the DFW ozone nonattainment area that was newly designated under the2008 eight-hour ozone standard. Includes: Wise County.

2) 9 PDC means the nine existing nonattainment counties and indicates values are for the nine counties that had an existing designation under the one-hour ozone standard and/or under the 1997 eight-hour ozone standard. Includes: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant Counties.

3) 10 County Total means the values include the ten DFW area nonattainment counties designated under the 2008 eight-hour ozone standard.

4) The difference between existing post-2011 Controlled emissions (as of 2011) and Post-2011 Controlled VOC emissions represents noncreditable

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Attachment A - Sheet 30

Enter 2017 Control Measure Reductions

DFW Nonattainment Area Eight-hour Ozone Season VOC and NO_X

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

RFP Control Strategy Description	Source Category	Total 2011 to 2017 NO_X Emissions Reductions (tpd)	Total 2011 to 2017 VOC Emissions Reductions (tpd)	Use this control for RFP calculations? (Yes or No)	Is this an on-road mobile control that will change the MVEB? (Yes or No)
Chapter 117 NO_X controls	Point	0.00	0.00	Yes	No
Chapter 115 Storage Tank Rule	Point	0.00	0.00	Yes	No
Coating / printing rules	Point	0.00	0.00	Yes	No
Portable fuel containers	Area	0.00	0.00	Yes	No
Federal Motor Vehicle Control Program (FMVCP)	OR	648.53	313.28	Yes	Yes
Inspection and Maintenance (I/M)	OR	12.09	10.44	Yes	Yes
Reformulated Gasoline (RFG)/East Texas Regional Low RVP	OR	52.41	22.75	Yes	Yes
On-road TxLED	OR	3.79	0.00	Yes	Yes
Tier I and II locomotive NO_X standards	NR	0.10	0.20	Yes	No
Small non-road spark ignition (SI) engines (Phase I)	NR	-3.47	32.32	Yes	No
Heavy duty non-road engines	NR	24.26	8.89	Yes	No
Tiers 2 and 3 non-road diesel engines	NR	32.26	6.22	Yes	No
Small non-road SI engines (Phase II)	NR	2.42	31.31	Yes	No
Large non-road SI & recreational marine	NR	32.72	13.82	Yes	No
Non-road TxLED	NR	2.17	0.00	Yes	No
Non-road RFG	NR	-0.53	0.00	Yes	No
Tier 4 non-road diesel engines	NR	15.03	0.81	Yes	No
Diesel recreational marine	NR	0.00	0.00	Yes	No
Small SI (Phase III)	NR	2.03	13.35	Yes	No
Chapter 117 NO_X area source engine controls	Area	0.00	0.00	Yes	No
Drilling rig low emission diesel	Area	0.00	0.00	Yes	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
Total		823.81	453.39		

Notes:

1) Point source Chapter 117 NO_X controls in the DFW area had compliance deadlines before 2011. The 2011 EI includes the effects of the control. No additional control beyond 2011 are claimed.

2) Area source Chapter 117 NO_X controls in the DFW area had compliance deadlines before 2011. The 2011 EI includes the effects of the control. No additional control beyond 2011 are claimed.

3) Area source Portable fuel containers controls in the DFW area had compliance deadlines before 2011. The 2011 EI includes the effects of the control. No additional control beyond 2011 are claimed.

4) The ten county DFW area includes counties with federal RFG and counties with Texas Regional Low RVP. The four counties with RFG are: Collin, Dallas Denton and Tarrant. The six counties with Texas Regional Low RVP are: Ellis, Johnson, Kaufman, Parker, Rockwall and Wise.

5) 1 NDC means the onr newly designated counties and indicates values are for the one county in the DFW ozone nonattainment area that were newly designated under the 2008 eight-hour ozone standard. Includes: Wise County

6) 9 PDC means the nine previously designated counties and indicates values are for the nine counties that had an existing designation under the one-hour ozone standard and were also designated under the 1997 eight-hour ozone standard. Includes: Collin, Dallas, Denton,Ellis, Johnson, Kaufman, Parker, Rockwall, and Tarrant Counties.

7) 10 NAC = means the values include all ten DFW area ozone nonattainment counties designated under the 2008 ozone standards.

8) Inspection and Maintenance Program is only modeled for the nine previously designated counties

9)"This row not used for current RFP" control rows were created only to allow for planners to easily add controls for alternative scenario analyses.

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Attachment A - Sheet 31

Enter 2017 Control Measure Reductions

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X

One Newly Designated Nonattainment County: Wise

RFP Control Strategy Description	Source Category	Total 2011 to 2017 NO_X Emissions Reductions (tpd)	Total 2011 to 2017 VOC Emissions Reductions (tpd)	Use this control for RFP calculations? (Yes or No)	Is this an on-road mobile control that will change the MVEB? (Yes or No)
Chapter 117 NOX controls	Point	0.00	0.00	Yes	No
Chapter 115 Storage Tank Rule	Point	0.00	0.00	Yes	No
Coating / printing rules	Point	0.00	0.00	Yes	No
Portable fuel containers	Area	0.00	0.00	Yes	No
Federal Motor Vehicle Control Program (FMVCP)	OR	13.81	3.45	Yes	Yes
Inspection and Maintenance (I/M)	OR	0.00	0.00	Yes	Yes
Reformulated Gasoline (RFG)/East Texas Regional Low RVP	OR	0.79	0.20	Yes	Yes
On-road TxLED	OR	0.11	0.00	Yes	Yes
Tier I and II locomotive NOX standards	NR	0.01	0.02	Yes	No
Small non-road spark ignition (SI) engines (Phase I)	NR	-0.03	0.21	Yes	No
Heavy duty non-road engines	NR	1.40	0.53	Yes	No
Tiers 2 and 3 non-road diesel engines	NR	1.68	0.17	Yes	No
Small non-road SI engines (Phase II)	NR	0.02	0.21	Yes	No
Large non-road SI & recreational marine	NR	0.20	0.28	Yes	No
Non-road TxLED	NR	0.07	0.00	Yes	No
Non-road RFG	NR	0.00	0.00	Yes	No
Tier 4 non-road diesel engines	NR	0.88	0.03	Yes	No
Diesel recreational marine	NR	0.00	0.00	Yes	No
Small SI (Phase III)	NR	0.02	0.20	Yes	No
Chapter 117 NOX area source engine controls	Area	0.00	0.00	Yes	No
Drilling rig low emission diesel	Area	0.00	0.00	Yes	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
Total		18.96	5.30		

Notes

Please see notes for the control reductions on:
Sheet 30 Enter Reductions 9 PDC 2017

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Attachment A - Sheet 32

Enter 2018 Control Measure Reductions

DFW Nonattainment Area Eight-hour Ozone Season VOC and NO_X

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

RFP Control Strategy Description	Source Category	Total 2011 to 2018 NO_X Emissions Reductions (tpd)	Total 2011 to 2018 VOC Emissions Reductions (tpd)	Use this control for RFP demonstration? (Yes or No)	Is this an on-road mobile control that will change the MVEB? (Yes or No)
Chapter 117 NOX controls	Point	0.00	0.00	Yes	No
Chapter 115 Storage Tank Rule	Point	0.00	0.00	Yes	No
Coating / printing rules	Point	0.00	0.00	Yes	No
Portable fuel containers	Area	0.00	0.00	Yes	No
Federal Motor Vehicle Control Program (FMVCP)	OR	689.63	329.40	Yes	Yes
Inspection and Maintenance (I/M)	OR	10.69	9.93	Yes	Yes
Reformulated Gasoline (RFG)/East Texas Regional Low RVP	OR	48.39	21.36	Yes	Yes
On-road TxLED	OR	3.36	0.00	Yes	Yes
Tier I and II locomotive NOX standards	NR	0.20	0.30	Yes	No
Small non-road spark ignition (SI) engines (Phase I)	NR	-3.52	32.86	Yes	No
Heavy duty non-road engines	NR	24.94	9.16	Yes	No
Tiers 2 and 3 non-road diesel engines	NR	33.72	6.45	Yes	No
Small non-road SI engines (Phase II)	NR	2.46	31.84	Yes	No
Large non-road SI & recreational marine	NR	34.16	14.63	Yes	No
Non-road TxLED	NR	2.38	0.00	Yes	No
Non-road RFG	NR	-0.51	1.53	Yes	No
Tier 4 non-road diesel engines	NR	17.44	0.91	Yes	No
Diesel recreational marine	NR	0.00	0.00	Yes	No
Small SI (Phase III)	NR	2.15	14.05	Yes	No
Chapter 117 NOX area source engine controls	Area	0.00	0.00	Yes	No
Drilling rig low emission diesel	Area	0.00	0.00	Yes	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
Total		865.49	472.42		

Note: Unspecified control rows were created only to allow for planners to easily add controls for alternative scenario analyses.

Notes

Please see notes for the control reductions on:

Sheet 30 Enter Reductions 9 PDC 2017

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Attachment A - Sheet 33

Enter 2018 Control Measure Reductions

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X

One Newly Designated Nonattainment County: Wise

RFP Control Strategy Description	Source Category	Total 2011 to 2018 NO_X Emissions Reductions (tpd)	Total 2011 to 2018 VOC Emissions Reductions (tpd)	Use this control for RFP demonstration? (Yes or No)	Is this an on-road mobile control that will change the MVEB? (Yes or No)
Chapter 117 NOX controls	Point	0.00	0.00	Yes	No
Chapter 115 Storage Tank Rule	Point	0.00	0.00	Yes	No
Coating / printing rules	Point	0.00	0.00	Yes	No
Portable fuel containers	Area	0.00	0.00	Yes	No
Federal Motor Vehicle Control Program (FMVCP)	OR	14.71	3.66	Yes	Yes
Inspection and Maintenance (I/M)	OR	0.00	0.00	Yes	Yes
Reformulated Gasoline (RFG)/East Texas Regional Low RVP	OR	0.73	0.19	Yes	Yes
On-road TxLED	OR	0.09	0.00	Yes	Yes
Tier I and II locomotive NOX standards	NR	0.02	0.03	Yes	No
Small non-road spark ignition (SI) engines (Phase I)	NR	-0.03	0.22	Yes	No
Heavy duty non-road engines	NR	1.41	0.54	Yes	No
Tiers 2 and 3 non-road diesel engines	NR	1.70	0.18	Yes	No
Small non-road SI engines (Phase II)	NR	0.02	0.21	Yes	No
Large non-road SI & recreational marine	NR	0.20	0.30	Yes	No
Non-road TxLED	NR	0.06	0.00	Yes	No
Non-road RFG	NR	0.00	0.00	Yes	No
Tier 4 non-road diesel engines	NR	1.00	0.04	Yes	No
Diesel recreational marine	NR	0.00	0.00	Yes	No
Small SI (Phase III)	NR	0.02	0.23	Yes	No
Chapter 117 NOX area source engine controls	Area	0.00	0.00	Yes	No
Drilling rig low emission diesel	Area	0.00	0.00	Yes	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
Total		19.93	5.60		

Note: Unspecified control rows were created only to allow for planners to easily add controls for alternative scenario analyses.

Notes

Please see notes for the control reductions on:

Sheet 30 Enter Reductions 9 PDC 2017

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Attachment A - Sheet 34

Enter 2019 Contingency Measure Control Measure Reductions

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

RFP Control Strategy Description	Source Category	Total 2011 to 2019 NO_X Emissions Reductions (tpd)	Total 2011 to 2019 VOC Emissions Reductions (tpd)	Use this control for 2019 RFP contingency? (Yes or No)
Chapter 117 NOX controls	Point	0.00	0.00	No
Chapter 115 Storage Tank Rule	Point	0.00	0.00	No
Coating / printing rules	Point	0.00	0.00	No
Portable fuel containers	Area	0.00	0.00	No
Federal Motor Vehicle Control Program (FMVCP)	OR	725.05	343.53	Yes
Inspection and Maintenance (I/M)	OR	9.56	9.35	Yes
Reformulated Gasoline (RFG)/East Texas Regional Low RVP	OR	44.46	20.26	Yes
On-road TxLED	OR	3.05	0.00	Yes
Tier I and II locomotive NOX standards	NR	0.00	0.00	No
Small non-road spark ignition (SI) engines (Phase I)	NR	-3.61	33.62	Yes
Heavy duty non-road engines	NR	26.86	9.93	Yes
Tiers 2 and 3 non-road diesel engines	NR	36.64	6.84	Yes
Small non-road SI engines (Phase II)	NR	2.52	32.57	Yes
Large non-road SI & recreational marine	NR	35.55	15.61	Yes
Non-road TxLED	NR	1.92	0.00	Yes
Non-road RFG	NR	-0.52	1.54	Yes
Tier 4 non-road diesel engines	NR	20.61	1.08	Yes
Diesel recreational marine	NR	0.00	0.00	Yes
Small SI (Phase III)	NR	2.25	14.89	Yes
Chapter 117 NOX area source engine controls	Area	0.00	0.00	No
Drilling rig low emission diesel	Area	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
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This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
Total		904.34	489.22	

Note: Unspecified control rows were created only to allow for planners to easily add controls for alternative scenario analyses.

Notes

Please see notes for the control reductions on:

Sheet 30 Enter Reductions 9 PDC 2017

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Attachment A - Sheet 35

Enter 2019 Contingency Measure Control Measure Reductions

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X

One Newly Designated Nonattainment County: Wise

RFP Control Strategy Description	Source Category	Total 2011 to 2019 NO_X Emissions Reductions (tpd)	Total 2011 to 2019 VOC Emissions Reductions (tpd)	Use this control for 2019 RFP contingency? (Yes or No)
Chapter 117 NOX controls	Point	0.00	0.00	No
Chapter 115 Storage Tank Rule	Point	0.00	0.00	No
Coating / printing rules	Point	0.00	0.00	No
Portable fuel containers	Area	0.00	0.00	No
Federal Motor Vehicle Control Program (FMVCP)	OR	15.56	3.87	Yes
Inspection and Maintenance (I/M)	OR	0.00	0.00	Yes
Reformulated Gasoline (RFG)/East Texas Regional Low RVP	OR	0.67	0.17	Yes
On-road TxLED	OR	0.08	0.00	Yes
Tier I and II locomotive NOX standards	NR	0.00	0.00	No
Small non-road spark ignition (SI) engines (Phase I)	NR	-0.03	0.23	Yes
Heavy duty non-road engines	NR	1.42	0.55	Yes
Tiers 2 and 3 non-road diesel engines	NR	1.72	0.17	Yes
Small non-road SI engines (Phase II)	NR	0.02	0.21	Yes
Large non-road SI & recreational marine	NR	0.21	0.32	Yes
Non-road TxLED	NR	0.05	0.00	Yes
Non-road RFG	NR	0.00	0.00	Yes
Tier 4 non-road diesel engines	NR	1.09	0.04	Yes
Diesel recreational marine	NR	0.00	0.00	Yes
Small SI (Phase III)	NR	0.02	0.25	Yes
Chapter 117 NOX area source engine controls	Area	0.00	0.00	No
Drilling rig low emission diesel	Area	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
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This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
Total		20.81	5.81	

Note: Unspecified control rows were created only to allow for planners to easily add controls for alternative scenario analyses.

Notes

Please see notes for the control reductions on:

Sheet 30 Enter Reductions 9 PDC 2017

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Attachment A - Sheet 36

Calculate 2011 RFP Base Year Emissions Inventory

(Add emissions from outside the nonattainment area that are to be included in the RFP analysis.)

DFW Eight-Hour Ozone Nonattainment Area

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

The PDC 2011 Base Year Inventory	**NO_X (tons/day)**	**VOC (tons/day)**
Point Source PDC 2011 EI	31.34	27.66
Area Source PDC 2011 EI	30.48	263.30
On-road mobile PDC 2011 EI	230.75	99.39
Non-road mobile PDC 2011 EI	112.98	53.74
Biogenic PDC 2011 EI (see Note 1)	See Note 1	See Note 1
Total PDC 2011 Base Year Inventory	405.55	444.09
The PDC 2011 RFP Base Year Inventory Out of Area Adjustments	**NO_X (tons/day)**	**VOC (tons/day)**
What is the total amount of biogenic emissions from sources in the area in tons/day for PDC 2011 to be subtracted?	See Note 1	See Note 1
What is the total amount of point source emissions from outside the nonattainment to be included/excluded for PDC 2011?	0.00	0.00
What is the total amount of area source emissions from outside the nonattainment to be included/excluded for PDC 2011?	0.00	0.00
What is the total amount of on-road source emissions from outside the nonattainment to be included/excluded for PDC 2011?	0.00	0.00
What is the total amount of non-road source emissions from outside the nonattainment to be included/excluded for PDC 2011?	0.00	0.00
Total PDC 2011 RFP Base Year Adjustments	0.00	0.00
Description	**NO_X (tons/day)**	**VOC (tons/day)**
Total PDC 2011 RFP Base Year Inventory with Adjustments	**405.55**	**444.09**

Notes:

1) Beginning with the Air Emissions Reporting Requirements (December 2008), the emissions required to be reported no longer include emissions from biogenic sources. Therefore, as of the 2011 reporting year, the comprehensive triennial emissions inventory no longer includes emissions from biogenic sources.
The RFP demonstrations are based upon the emissions from anthropogenic sources. The guidance for RFP calculations shows the first step is to subtract the emissions from biogenic sources from the total base year emissions to obtain the total anthropogenic emission inventory. As of 2011, under the AERR, the base year emissions do not include biogenic sources and already represent the total anthropogenic emissions. In this case, step one of the RFP process is not needed, and the emissions from biogenic sources is unnecessary. This RFP SIP revision: uses a base year of 2011; does not require subtraction of the biogenic emissions in Step One of the RFP calculation process; and does not include quantification of emissions from biogenic sources.

2) Input lines allow for input of emissions from outside the subject counties to be included in the calculation of the RFP BY emissions. Emission reductions from the included sources can then be used to meet RFP requirements.

3) Values in lines should be input as positive values for emissions from outside the area that need to be included in the calculations and as negative values for emissions which need to be excluded from the RFP calculations.

4) 4 PDC means the four existing nonattainment counties and indicates values are for the four counties that had an existing designation under the one-hour ozone standard and were also designated under the eight-hour ozone standard. Includes: Collin, Dallas, Denton, and Tarrant Counties.

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Go to Enter Biogenics EI

Go to EI Summary NOx Uncontrolled

Attachment A - Sheet 37

Calculate NDC 2011 RFP Base Year Emissions Inventory

('Add emissions from outside the nonattainment area that are to be included in RFP analysis.)

DFW Eight-Hour Ozone Nonattainment Area

One Newly Designated Nonattainment County: Wise

The NDC 2011 Base Year Inventory	**NO_X (tons/day)**	**VOC (tons/day)**
Point Source NDC 2011 EI	8.61	2.14
Area Source NDC 2011 EI	12.14	29.18
On-Road Mobile NDC 2011 EI	5.99	1.81
Non-Road Mobile NDC 2011 EI	6.85	1.25
Biogenic NDC 2011 EI	See Note 1	See Note 1
Total NDC 2011 Base Year Inventory	33.59	34.38
The NDC 2011 RFP Base Year Inventory Out of Area Adjustments	**NO_X (tons/day)**	**VOC (tons/day)**
What is the total amount of biogenic emissions from sources in the area in tons/day for NDC 2011 to be subtracted?	See Note 1	See Note 1
What is the total amount of point source emissions from outside the nonattainment to be included/excluded for NDC 2011?	0.00	0.00
What is the total amount of area source emissions from outside the nonattainment to be included/excluded for NDC 2011?	0.00	0.00
What is the total amount of on-road source emissions from outside the nonattainment to be included/excluded for NDC 2011?	0.00	0.00
What is the total amount of non-road source emissions from outside the nonattainment to be included/excluded for NDC 2011?	0.00	0.00
Total NDC 2011 RFP Base Year Adjustments	0.00	0.00
Description	**NO_X (tons/day)**	**VOC (tons/day)**
Total NDC 2011 RFP Base Year Inventory with Adjustments	**33.59**	**34.38**

Notes:

1) Beginning with the Air Emissions Reporting Requirements (December 2008), the emissions required to be reported no longer include emissions from biogenic sources. Therefore, as of the 2011 reporting year, the comprehensive triennial emissions inventory no longer includes emissions from biogenic sources.
The RFP demonstrations are based upon the emissions from anthropogenic sources. The guidance for RFP calculations shows the first step is to subtract the emissions from biogenic sources from the total base year emissions to obtain the total anthropogenic emission inventory. As of 2011, under the AERR, the base year emissions do not include biogenic sources and already represent the total anthropogenic emissions. In this case, step one of the RFP process is not needed, and the emissions from biogenic sources is unnecessary. This RFP SIP revision: uses a base year of 2011; does not require subtraction of the biogenic emissions in Step One of the RFP calculation process; and does not include quantification of emissions from biogenic sources.

2) Input lines allow for input of emissions from outside the subject counties to be included in the calculation of the RFP 2011 BY emissions. Emission reductions from the included sources can then be used to meet RFP requirements.

3) Values in lines should be input as positive values for emissions from outside the area that need to be included in the calculations and as negative values for emissions which need to be excluded from the RFP calculations.

4) NDC means the one newly designated county and indicates values are for the one county in the DFW ozone nonattainment area that was newly designated under the 2008 eight-hour ozone standard. Includes: Wise County.

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Go to Enter Biogenics EI
Go to EI Summary NOx Uncontrolled

Attachment A - Sheet 38

2017 Forecasted Uncontrolled or Existing Control Emissions Inventory with pre-2011 Controls

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

Uncontrolled or Existing Control EI with pre-2011 controls: These calculations sum the total Uncontrolled or Existing Control NOX and VOC emissions (tpd) for the 2017 RFP milestone year. The totals for each source category used in these calculations were entered on enter EI sheets.

Forecasted 2017 Uncontrolled or Existing Control Emissions Inventory with pre-2011 Controls		
Emissions Description	NO_X (tpd)	VOC (tpd)
Point Source	46.71	30.84
Area Source	30.91	266.15
On-Road Mobile Source	860.90	416.88
Non-Road Mobile Source	206.27	150.44
Nine County Total	1144.79	864.31

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Attachment A - Sheet 39

2017 Forecasted Uncontrolled or Existing Control Emissions Inventory with pre-2011 Controls

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X

One Newly Designated Nonattainment County: Wise

Uncontrolled or Existing Control EI with pre-2011 controls: These calculations sum the total Uncontrolled or Existing Control NOX and VOC emissions (tpd) for the 2017 RFP milestone year. The totals for each source category used in these calculations were entered on enter EI sheets.

Forecasted 2017 Uncontrolled Emissions Inventory with pre-2011 Controls		
Emissions Description	NO_X (tpd)	VOC (tpd)
Point Source	10.21	3.41
Area Source	9.72	23.74
On-Road Mobile Source	18.28	4.89
Non-Road Mobile Source	11.17	2.75
Nine County Total	49.38	34.79

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Attachment A - Sheet 40

2018 Forecasted Uncontrolled or Existing Control Emissions Inventory with pre-2011 Controls
DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

Uncontrolled or Existing Control EI with pre-2011 controls: These calculations add up to the total Uncontrolled or Existing Control NOX and VOC emissions (tpd) for the 2018 RFP milestone year. The totals for each source category used in these calculations were entered on enter EI sheets.

Forecasted 2018 Uncontrolled or Existing Control Emissions Inventory with pre-2011 Controls		
Emissions Description	NO_X (tpd)	VOC (tpd)
Point Source	45.90	29.83
Area Source	29.93	258.70
On-Road Mobile Source	881.68	427.12
Non-Road Mobile Source	206.03	152.56
Total	1163.54	868.21

Spreadsheet Navigation
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Go To Enter Area EI
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Attachment A - Sheet 41

2018 Forecasted Uncontrolled or Existing Control Emissions Inventory with pre-2011 Controls
DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X
One Newly Designated Nonattainment County: Wise

Uncontrolled or Existing Control EI with pre-2011 controls: These calculations add up to the total Uncontrolled or Existing Control NOX and VOC emissions (tpd) for the 2018 RFP milestone year. The totals for each source category used in these calculations were entered on enter EI sheets.

Forecasted 2018 Uncontrolled or Existing Control Emissions Inventory with pre-2011 Controls		
Emissions Description	NO_X (tpd)	VOC (tpd)
Point Source	9.71	2.88
Area Source	7.44	19.17
On-Road Mobile Source	18.74	5.01
Non-Road Mobile Source	10.61	2.71
Total	46.50	29.77

Spreadsheet Navigation
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Go To Enter Area EI
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Go to Enter Biogenics EI
Go to EI Summary NOx Uncontrolled

Attachment A - Sheet 42

Calculations: 9 PDC 2011 Adjusted Base Year Emissions Inventory with Pre-1990 Controls

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

ABY EI with pre-1990 controls: These calculations add up to the total ABY NO_X and VOC emissions (tpd) for the 2011 RFP BY. The totals for each source category used in these calculations were entered on enter EI sheets. For on-road mobile sources, there are separate data entry sheets for the ABY inventory for each milestone year. For all other source categories, the 2011 ABY is equal to the BY because there are no non-creditable controls for point, area or non-road sources after 2011.

9 PDC 2011 RFP Adjusted Base Year Emissions Inventory with Pre-1990 Controls		
Emissions Description	**NO_X (tpd)**	**VOC (tpd)**
Point Source 2011 9 PDC BY EI	31.34	27.66
Area Source 20119 PDC BY EI	30.48	263.30
On-Road Mobile Source 2011 9 PDC ABY EI	230.75	99.39
Non-Road Mobile Source 2011 9 PDCBY EI	112.98	53.74
9 PDC 2011 RFP Adjusted Base Year Emissions Inventory	405.55	444.09

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Go to EI Summary NOx Uncontrolled

Attachment A - Sheet 43

Calculations: 1 NDC 2011 Adjusted Base Year Emissions Inventory with Pre-1990 Controls
DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X
One Newly Designated Nonattainment County: Wise

ABY EI with pre-1990 controls: These calculations add up to the total ABY NOX and VOC emissions (tpd) for the 2011 RFP BY. The totals for each source category used in these calculations were entered on enter EI sheets. For on-road mobile sources, there are separate data entry sheets for the ABY inventory for each milestone year. For all other source categories, the 2011 ABY is equal to the BY because there are no non-creditable controls for point, area or non-road sources after 2011.

1 NDC 2011 RFP Adjusted Base Year Emissions Inventory with Pre-1990 Controls		
Emissions Description	**NO_X (tpd)**	**VOC (tpd)**
Point Source 1 NDC 2011 BY EI	8.61	2.14
Area Source 1 NDC 2011 BY EI	12.14	29.18
On-Road Mobile Source 1 NDC 2011 ABY EI	5.99	1.81
Non-Road Mobile Source 1 NDC 2011 BY EI	6.85	1.25
1 NDC 2011 RFP Adjusted Base Year Emissions Inventory	33.59	34.38

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Attachment A - Sheet 44

Calculations: 9 PDC 2017 Adjusted Base Year Emissions Inventory with Pre-1990 Controls

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

ABY EI with pre-1990 controls: These calculations add up to the total ABY NOX and VOC emissions (tpd) for the 2011 RFP BY. The totals for each source category used in these calculations were entered on enter EI sheets. For on-road mobile sources, there are separate data entry sheets for the ABY inventory for each milestone year. For all other source categories, the 2011 ABY is equal to the BY because there are no non-creditable controls for point, area or non-road sources after 2011.

9 PDC 2017 RFP Adjusted Base Year Emissions Inventory with Pre-1990 Controls		
Emissions Description	**NO_X (tpd)**	**VOC (tpd)**
Point Source 2011 BY EI	31.34	27.66
Area Source 2011 BY EI	30.48	263.30
On-Road Mobile Source 2017 ABY EI	228.66	104.43
Non-Road Mobile Source 2011 BY EI	112.98	53.74
9 PDC 2017 RFP Adjusted Base Year Emissions Inventory	403.46	449.13

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Go To Calculate Contingency

Go To Calculate Noncreditable Reductions

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Go to Enter NONROAD Categories EI

Go to Enter Biogenics EI

Go to EI Summary NOx Uncontrolled

Attachment A - Sheet 45

Calculations: 1 NDC 2017 Adjusted Base Year Emissions Inventory with Pre-1990 Controls
DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X

One Newly Designated Nonattainment County: Wise

ABY EI with pre-1990 controls: These calculations add up to the total ABY NOX and VOC emissions (tpd) for the 2011 RFP BY. The totals for each source category used in these calculations were entered on enter EI sheets. For on-road mobile sources, there are separate data entry sheets for the ABY inventory for each milestone year. For all other source categories, the 2011 ABY is equal to the BY because there are no non-creditable controls for point, area or non-road sources after 2011.

1 NDC 2017 RFP Adjusted Base Year Emissions Inventory with Pre-1990 Controls		
Emissions Description	**NO_X (tpd)**	**VOC (tpd)**
Point Source 2011 1 NDC BY EI	8.61	2.14
Area Source 2011 1 NDC BY EI	12.14	29.18
On-Road Mobile Source 2017 ABY EI	5.76	1.87
Non-Road Mobile Source 2011 1 NDC BY EI	6.85	1.25
1 NDC 2017 RFP Adjusted Base Year Emissions Inventory	33.36	34.44

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Go To Calculate Noncreditable Reductions
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Go to Enter On-road EI
Go to Enter NONROAD Categories EI
Go to Enter Biogenics EI
Go to EI Summary NOx Uncontrolled

Attachment A - Sheet 46

Calculations: 9 PDC 2018 Adjusted Base Year Emissions Inventory with Pre-1990 Controls

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

ABY EI with pre-1990 controls: These calculations add up to the total ABY NOX and VOC emissions (tpd) for the 2011 RFP BY. The totals for each source category used in these calculations were entered on enter EI sheets. For on-road mobile sources, there are separate data entry sheets for the ABY inventory for each milestone year. For all other source categories, the 2011 ABY is equal to the BY because there are no non-creditable controls for point, area or non-road sources after 2011.

9 PDC 2018 RFP Adjusted Base Year Emissions Inventory with Pre-1990 Controls		
Emissions Description	**NO_X (tpd)**	**VOC (tpd)**
Point Source 2011 BY EI	31.34	27.66
Area Source 2011 BY EI	30.48	263.30
On-Road Mobile Source 2018 ABY EI	227.55	104.07
Non-Road Mobile Source 2011 BY EI	112.98	53.74
9 PDC 2018 RFP Adjusted Base Year Emissions Inventory	402.35	448.77

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Go to EI Summary NOx Uncontrolled

Attachment A - Sheet 47

Calculations: 1 NDC 2018 Adjusted Base Year Emissions Inventory with Pre-1990 Controls

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X

One Newly Designated Nonattainment County: Wise

ABY EI with pre-1990 controls: These calculations add up to the total ABY NOX and VOC emissions (tpd) for the 2011 RFP BY. The totals for each source category used in these calculations were entered on enter EI sheets. For on-road mobile sources, there are separate data entry sheets for the ABY inventory for each milestone year. For all other source categories, the 2011 ABY is equal to the BY because there are no non-creditable controls for point, area or non-road sources after 2011.

1 NDC 2018 RFP Adjusted Base Year Emissions Inventory with Pre-1990 Controls		
Emissions Description	**NO_X (tpd)**	**VOC (tpd)**
Point Source 2011 1 NDC BY EI	8.61	2.14
Area Source 2011 1 NDC BY EI	12.14	29.18
On-Road Mobile Source 2018 ABY EI	5.76	1.86
Non-Road Mobile Source 2011 1 NDC BY EI	6.85	1.25
1 NDC 2018 RFP Adjusted Base Year Emissions Inventory	33.36	34.43

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Go To Calculate Contingency
Go To Calculate Noncreditable Reductions
Go to Enter Point EI
Go To Enter Area EI
Go to Enter On-road EI
Go to Enter NONROAD Categories EI
Go to Enter Biogenics EI
Go to EI Summary NOx Uncontrolled

Attachment A - Sheet 48

Calculations: 9 PDC 2011 to 2017 Control Measures Reductions

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

Explanation: The control strategy name, control reduction amount, status of inclusion of the control in the RFP calculations, and whether or not the control is for on-road mobile sources were all input in sheet "26 Enter Reductions 9 PDC 2017." The reduction is the reduction that is creditable from each control between 2011 and 2017. If the control has been turned off by inputting a "No" in the "Use this control for RFP demonstration?" column, the spreadsheet will put a zero in for the reduction for that control on this sheet, even if a positive value for the control was input into the Enter Reductions 9 PDC 2017 sheet. If it was intended to have a positive reduction for the control but there is a zero, go back to the 26 Enter Reductions 9 PDC 2017 Sheet and change the No to a Yes indicating that the control will be used for RFP demonstration.

RFP Control Strategy Description	Source Category	Total 2011 to 2017 NOX Emissions Reductions (tpd)	Total 2011 to 2017 VOC Emissions Reductions (tpd)	Use this control for RFP demonstration? (Yes or No)	Is this an on-road mobile control that will change the MVEB? (Yes or No)
Chapter 117 NOX controls	Point	0.00	0.00	Yes	No
Chapter 115 Storage Tank Rule	Point	0.00	0.00	Yes	No
Coating / printing rules	Point	0.00	0.00	Yes	No
Portable fuel containers	Area	0.00	0.00	Yes	No
Federal Motor Vehicle Control Program (FMVCP)	OR	648.53	313.28	Yes	Yes
Inspection and Maintenance (I/M)	OR	12.09	10.44	Yes	Yes
Reformulated Gasoline (RFG)/East Texas Regional Low RVP	OR	52.41	22.75	Yes	Yes
On-road TxLED	OR	3.79	0.00	Yes	Yes
Tier I and II locomotive NOX standards	NR	0.10	0.20	Yes	No
Small non-road spark ignition (SI) engines (Phase I)	NR	-3.47	32.32	Yes	No
Heavy duty non-road engines	NR	24.26	8.89	Yes	No
Tiers 2 and 3 non-road diesel engines	NR	32.26	6.22	Yes	No
Small non-road SI engines (Phase II)	NR	2.42	31.31	Yes	No
Large non-road SI & recreational marine	NR	32.72	13.82	Yes	No
Non-road TxLED	NR	2.17	0.00	Yes	No
Non-road RFG	NR	-0.53	0.00	Yes	No
Tier 4 non-road diesel engines	NR	15.03	0.81	Yes	No
Diesel recreational marine	NR	0.00	0.00	Yes	No
Small SI (Phase III)	NR	2.03	13.35	Yes	No
Chapter 117 NOX area source engine controls	Area	0.00	0.00	Yes	No
Drilling rig low emission diesel	Area	0.00	0.00	Yes	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
Total 2017 9 PDC RFP Control Reductions		823.81	453.39		

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Go To 2017 RFP Demo
Go To Enter % RFP Contingency, NOx sub amounts, VOC transfer amounts, Conf Safety Margin
Go To Emissions Summary NOx Uncontrolled
Go To Contingency 2019

Attachment A - Sheet 49

Calculations: 1 NDC 2011-2017 Control Measures Reductions

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X

One Newly Designated Nonattainment County: Wise

Explanation: The control strategy name, control reduction amount, status of inclusion of the control in the RFP calculations, and whether or not the control is for on-road mobile sources were all input in sheet "26 Enter Reductions 9 PDC 2017." The reduction is the reduction that is creditable from each control between 2011 and 2017. If the control has been turned off by inputting a "No" in the "Use this control for 2017 RFP demonstration?" column, the spreadsheet will put a zero in for the reduction for that control on this sheet, even if a positive value for the control was input into the Enter Reductions 1 NDC 2017 sheet. If it was intended to have a positive reduction for the control but there is a zero, go back to the 26 Enter Reductions9 PDC 2017 Sheet and change the No to a Yes indicating that the control will be used for the RFP demonstration.

RFP Control Strategy Description	Source Category	Total 2011 to 2017 NOX Emissions Reductions (tpd)	Total 2011 to 2017 VOC Emissions Reductions (tpd)	Use this control for RFP demonstration? (Yes or No)	Is this an on-road mobile control that will change the MVEB? (Yes or No)
Chapter 117 NOX controls	Point	0.00	0.00	Yes	No
Chapter 115 Storage Tank Rule	Point	0.00	0.00	Yes	No
Coating / printing rules	Point	0.00	0.00	Yes	No
Portable fuel containers	Area	0.00	0.00	Yes	No
Federal Motor Vehicle Control Program (FMVCP)	OR	13.81	3.45	Yes	Yes
Inspection and Maintenance (I/M)	OR	0.00	0.00	Yes	Yes
Reformulated Gasoline (RFG)/East Texas Regional Low RVP	OR	0.79	0.20	Yes	Yes
On-road TxLED	OR	0.11	0.00	Yes	Yes
Tier I and II locomotive NOX standards	NR	0.01	0.02	Yes	No
Small non-road spark ignition (SI) engines (Phase I)	NR	-0.03	0.21	Yes	No
Heavy duty non-road engines	NR	1.40	0.53	Yes	No
Tiers 2 and 3 non-road diesel engines	NR	1.68	0.17	Yes	No
Small non-road SI engines (Phase II)	NR	0.02	0.21	Yes	No
Large non-road SI & recreational marine	NR	0.20	0.28	Yes	No
Non-road TxLED	NR	0.07	0.00	Yes	No
Non-road RFG	NR	0.00	0.00	Yes	No
Tier 4 non-road diesel engines	NR	0.88	0.03	Yes	No
Diesel recreational marine	NR	0.00	0.00	Yes	No
Small SI (Phase III)	NR	0.02	0.20	Yes	No
Chapter 117 NOX area source engine controls	Area	0.00	0.00	Yes	No
Drilling rig low emission diesel	Area	0.00	0.00	Yes	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
Total 2017 1 NDC RFP Control Reductions		18.96	5.30		

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Go To Enter Reductions
Go To 2017 RFP Demo
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Go To Emissions Summary NOx Uncontrolled
Go To Contingency 2019

Attachment A - Sheet 50

Calculations: Combined 9 PDC and 1 NDC 2011 to 2017 Control Measures Reductions

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X

All Ten Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

Explanation: The control strategy name, control reduction amount, status of inclusion of the control in the RFP calculations, and whether or not the control is for on-road mobile sources were all input in sheet "26 Enter Reductions 9 PDC 2017." The reduction is the reduction that is creditable from each control between 2011 and 2017. If the control has been turned off by inputting a "No" in the "Use this control for RFP demonstration?" column, the spreadsheet will put a zero in for the reduction for that control on this sheet, even if a positive value for the control was input into the Enter Reductions 9 PDC 2017 sheet. If it was intended to have a positive reduction for the control but there is a zero, go back to the 26 Enter Reductions 9 PDC 2017 Sheet and change the No to a Yes indicating that the control will be used for RFP demonstration.

RFP Control Strategy Description	Source Category	Total 2011 to 2017 NOX Emissions Reductions (tpd)	Total 2011 to 2017 VOC Emissions Reductions (tpd)	Use this control for RFP demonstration? (Yes or No)	Is this an on-road mobile control that will change the MVEB? (Yes or No)
Chapter 117 NOX controls	Point	0.00	0.00	Yes	No
Chapter 115 Storage Tank Rule	Point	0.00	0.00	Yes	No
Coating / printing rules	Point	0.00	0.00	Yes	No
Portable fuel containers	Area	0.00	0.00	Yes	No
Federal Motor Vehicle Control Program (FMVCP)	OR	662.34	316.73	Yes	Yes
Inspection and Maintenance (I/M)	OR	12.09	10.44	Yes	Yes
Reformulated Gasoline (RFG)/East Texas Regional Low RVP	OR	53.20	22.95	Yes	Yes
On-road TxLED	OR	3.90	0.00	Yes	Yes
Tier I and II locomotive NOX standards	NR	0.11	0.22	Yes	No
Small non-road spark ignition (SI) engines (Phase I)	NR	-3.50	32.53	Yes	No
Heavy duty non-road engines	NR	25.66	9.42	Yes	No
Tiers 2 and 3 non-road diesel engines	NR	33.94	6.39	Yes	No
Small non-road SI engines (Phase II)	NR	2.44	31.52	Yes	No
Large non-road SI & recreational marine	NR	32.92	14.10	Yes	No
Non-road TxLED	NR	2.24	0.00	Yes	No
Non-road RFG	NR	-0.53	0.00	Yes	No
Tier 4 non-road diesel engines	NR	15.91	0.84	Yes	No
Diesel recreational marine	NR	0.00	0.00	Yes	No
Small SI (Phase III)	NR	2.05	13.55	Yes	No
Chapter 117 NOX area source engine controls	Area	0.00	0.00	Yes	No
Drilling rig low emission diesel	Area	0.00	0.00	Yes	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
Total 2017 10 NAC RFP Control Reductions		842.77	458.69		

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Go To Contingency 2019

Attachment A - Sheet 51

Calculations: 2017 to 2018 Control Measures Reductions

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

Explanation: The control strategy name, control reduction amount, status of inclusion of the control in the RFP calculations, and whether or not the control is for on-road mobile sources were all input in sheet "26 Enter Reductions 9 PDC 2017." The reduction is the reduction that is creditable from each control between 2017 and 2018. If the control has been turned off by inputting a "No" in the "Use this control for 2018 RFP demonstration?" column, the spreadsheet will put a zero in for the reduction for that control on this sheet, even if a positive value for the control was input into the Enter Reductions 9 PDC 2018 sheet. If it was intended to have a positive reduction for the control but there is a zero, go back to the Enter Reductions9 PDC 2017 Sheet and change the No to a Yes indicating that the control will be used for RFP demonstration.

Creditable Reductions Control Strategy	Source Category	Total 2017 to 2018 NOX Emissions Reductions (tpd)	Total 2017 to 2018 VOC Emissions Reductions (tpd)	Use this control for RFP demonstration? (Yes or No)	Is this an on-road mobile control that will change the MVEB? (Yes or No)
Chapter 117 NOX controls	Point	0.00	0.00	Yes	No
Chapter 115 Storage Tank Rule	Point	0.00	0.00	Yes	No
Coating / printing rules	Point	0.00	0.00	Yes	No
Portable fuel containers	Area	0.00	0.00	Yes	No
Federal Motor Vehicle Control Program (FMVCP)	OR	27.29	16.12	Yes	Yes
Inspection and Maintenance (I/M)	OR	-1.40	-0.51	Yes	Yes
Reformulated Gasoline (RFG)/East Texas Regional Low RVP	OR	-4.81	-1.39	Yes	Yes
On-road TxLED	OR	-0.54	0.00	Yes	Yes
Tier I and II locomotive NOX standards	NR	0.09	0.10	Yes	No
Small non-road spark ignition (SI) engines (Phase I)	NR	-0.02	0.54	Yes	No
Heavy duty non-road engines	NR	-0.72	0.27	Yes	No
Tiers 2 and 3 non-road diesel engines	NR	-0.22	0.23	Yes	No
Small non-road SI engines (Phase II)	NR	0.02	0.53	Yes	No
Large non-road SI & recreational marine	NR	1.24	0.81	Yes	No
Non-road TxLED	NR	0.14	0.00	Yes	No
Non-road RFG	NR	0.02	1.53	Yes	No
Tier 4 non-road diesel engines	NR	1.53	0.10	Yes	No
Diesel recreational marine	NR	0.00	0.00	Yes	No
Small SI (Phase III)	NR	0.10	0.70	Yes	No
Chapter 117 NOX area source engine controls	Area	0.00	0.00	Yes	No
Drilling rig low emission diesel	Area	0.00	0.00	Yes	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
Total 2018 9 PDC RFP Control Reductions		22.72	19.03		

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Attachment A - Sheet 52

Calculations: 2017 to 2018 Control Measures Reductions

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X

One Newly Designated Nonattainment County: Wise

Explanation: The control strategy name, control reduction amount, status of inclusion of the control in the RFP calculations, and whether or not the control is for on-road mobile sources were all input in sheet "26 Enter Reductions 9 PDC 2017." The reduction is the reduction that is creditable from each control between 2017 and 2018. If the control has been turned off by inputting a "No" in the "Use this control for 2018 RFP demonstration?" column, the spreadsheet will put a zero in for the reduction for that control on this sheet, even if a positive value for the control was input into the Enter Reductions 9 PDC 2018 sheet. If it was intended to have a positive reduction for the control but there is a zero, go back to the Enter Reductions9 PDC 2017 Sheet and change the No to a Yes indicating that the control will be used for RFP demonstration.

Creditable Reductions Control Strategy	Source Category	Total 2017 to 2018 NOX Emissions Reductions (tpd)	Total 2017 to 2018 VOC Emissions Reductions (tpd)	Use this control for RFP demonstration? (Yes or No)	Is this an on-road mobile control that will change the MVEB? (Yes or No)
Chapter 117 NOX controls	Point	0.00	0.00	Yes	No
Chapter 115 Storage Tank Rule	Point	0.00	0.00	Yes	No
Coating / printing rules	Point	0.00	0.00	Yes	No
Portable fuel containers	Area	0.00	0.00	Yes	No
Federal Motor Vehicle Control Program (FMVCP)	OR	0.90	0.21	Yes	Yes
Inspection and Maintenance (I/M)	OR	0.00	0.00	Yes	Yes
Reformulated Gasoline (RFG)/East Texas Regional Low RVP	OR	-0.06	-0.01	Yes	Yes
On-road TxLED	OR	-0.02	0.00	Yes	Yes
Tier I and II locomotive NOX standards	NR	0.01	0.01	Yes	No
Small non-road spark ignition (SI) engines (Phase I)	NR	0.00	0.01	Yes	No
Heavy duty non-road engines	NR	0.01	0.01	Yes	No
Tiers 2 and 3 non-road diesel engines	NR	0.02	0.01	Yes	No
Small non-road SI engines (Phase II)	NR	0.00	0.00	Yes	No
Large non-road SI & recreational marine	NR	0.00	0.02	Yes	No
Non-road TxLED	NR	-0.01	0.00	Yes	No
Non-road RFG	NR	0.00	0.00	Yes	No
Tier 4 non-road diesel engines	NR	0.12	0.01	Yes	No
Diesel recreational marine	NR	0.00	0.00	Yes	No
Small SI (Phase III)	NR	0.00	0.03	Yes	No
Chapter 117 NOX area source engine controls	Area	0.00	0.00	Yes	No
Drilling rig low emission diesel	Area	0.00	0.00	Yes	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
Total 2018 1 NDC RFP Control Reductions		0.97	0.30		

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Go To Emissions Summary NOx Uncontrolled
Go To Contingency 2019

Attachment A - Sheet 53

Calculations: Combined 9 PDC and 1 NDC 2011 to 2017 Control Measures Reductions

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X

All Ten Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

Explanation: The control strategy name, control reduction amount, status of inclusion of the control in the RFP calculations, and whether or not the control is for on-road mobile sources were all input in sheet "26 Enter Reductions 9 PDC 2017." The reduction is the reduction that is creditable from each control between 2017 and 2018. If the control has been turned off by inputting a "No" in the "Use this control for 2018 RFP demonstration?" column, the spreadsheet will put a zero in for the reduction for that control on this sheet, even if a positive value for the control was input into the Enter Reductions 9 PDC 2018 sheet. If it was intended to have a positive reduction for the control but there is a zero, go back to the Enter Reductions9 PDC 2017 Sheet and change the No to a Yes indicating that the control will be used for RFP demonstration.

RFP Control Strategy Description	Source Category	Total 2011 to 2017 NOX Emissions Reductions (tpd)	Total 2011 to 2017 VOC Emissions Reductions (tpd)	Use this control for RFP demonstration? (Yes or No)	Is this an on-road mobile control that will change the MVEB? (Yes or No)
Chapter 117 NOX controls	Point	0.00	0.00	Yes	No
Chapter 115 Storage Tank Rule	Point	0.00	0.00	Yes	No
Coating / printing rules	Point	0.00	0.00	Yes	No
Portable fuel containers	Area	0.00	0.00	Yes	No
Federal Motor Vehicle Control Program (FMVCP)	OR	28.19	16.33	Yes	Yes
Inspection and Maintenance (I/M)	OR	-1.40	-0.51	Yes	Yes
Reformulated Gasoline (RFG)/East Texas Regional Low RVP	OR	-4.87	-1.40	Yes	Yes
On-road TxLED	OR	-0.56	0.00	Yes	Yes
Tier I and II locomotive NOX standards	NR	0.10	0.11	Yes	No
Small non-road spark ignition (SI) engines (Phase I)	NR	-0.02	0.55	Yes	No
Heavy duty non-road engines	NR	-0.71	0.28	Yes	No
Tiers 2 and 3 non-road diesel engines	NR	-0.20	0.24	Yes	No
Small non-road SI engines (Phase II)	NR	0.02	0.53	Yes	No
Large non-road SI & recreational marine	NR	1.24	0.83	Yes	No
Non-road TxLED	NR	0.13	0.00	Yes	No
Non-road RFG	NR	0.02	1.53	Yes	No
Tier 4 non-road diesel engines	NR	1.65	0.11	Yes	No
Diesel recreational marine	NR	0.00	0.00	Yes	No
Small SI (Phase III)	NR	0.10	0.73	Yes	No
Chapter 117 NOX area source engine controls	Area	0.00	0.00	Yes	No
Drilling rig low emission diesel	Area	0.00	0.00	Yes	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
This row not used for current RFP	UK	0.00	0.00	No	No
Total 2018 10 NAC RFP Control Reductions		23.69	19.33		

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Go To Emissions Summary NOx Uncontrolled
Go To Contingency 2019

Attachment A - Sheet 54

Calculations: 9 PDC 2018-2019 Contingency Control Measures Reductions

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X

Nine Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

Explanation: The control strategy name, control reduction amount, status of inclusion of the control in the RFP calculations, and whether or not the control is for on-road mobile sources were all input in sheet "34 Enter Reductions 9 PDC 2019." The reduction is the reduction that is creditable from each control between 2018 and 2019. If the control has been turned off by inputting a "No" in the "Use this control for 2019 RFP contingency demonstration?" column, the spreadsheet will put a zero in for the reduction for that control on this sheet, even if a positive value for the control was input into the Enter Reductions 9 PDC 2019 sheet. If it was intended to have a positive reduction for the control but there is a zero, go back to the Enter Reductions 9 PDC 2019 Sheet and change the No to a Yes indicating that the control will be used for RFP contingency demonstration.

RFP Control Strategy Description	Source Category	Total 2018 to 2019 NO_X Emissions Reductions (tpd)	Total 2018 to 2019 VOC Emissions Reductions (tpd)	Use this control for 2019 RFP contingency demonstration? (Yes or No)
Chapter 117 NOX controls	Point	0.00	0.00	No
Chapter 115 Storage Tank Rule	Point	0.00	0.00	No
Coating / printing rules	Point	0.00	0.00	No
Portable fuel containers	Area	0.00	0.00	No
Federal Motor Vehicle Control Program (FMVCP)	OR	35.42	14.13	Yes
Inspection and Maintenance (I/M)	OR	-1.13	-0.58	Yes
Reformulated Gasoline (RFG)/East Texas Regional Low RVP	OR	-3.93	-1.10	Yes
On-road TxLED	OR	-0.31	0.00	Yes
Tier I and II locomotive NOX standards	NR	0.00	0.00	No
Small non-road spark ignition (SI) engines (Phase I)	NR	-0.09	0.76	Yes
Heavy duty non-road engines	NR	1.92	0.77	Yes
Tiers 2 and 3 non-road diesel engines	NR	2.92	0.39	Yes
Small non-road SI engines (Phase II)	NR	0.06	0.73	Yes
Large non-road SI & recreational marine	NR	1.39	0.98	Yes
Non-road TxLED	NR	-0.46	0.00	Yes
Non-road RFG	NR	-0.01	0.01	Yes
Tier 4 non-road diesel engines	NR	3.17	0.17	Yes
Diesel recreational marine	NR	0.00	0.00	Yes
Small SI (Phase III)	NR	0.10	0.84	Yes
Chapter 117 NOX area source engine controls	Area	0.00	0.00	No
Drilling rig low emission diesel	Area	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
Total 9 PDC RFP Control Reductions		39.05	17.10	

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Go To Contingency 2019

Attachment A - Sheet 55

Calculations: 1 NDC 2018-2019 Contingency Control Measures Reductions

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X

One Newly Designated Nonattainment County: Wise

Explanation: The control strategy name, control reduction amount, status of inclusion of the control in the RFP calculations, and whether or not the control is for on-road mobile sources were all input in sheet "34 Enter Reductions 9 PDC 2019." The reduction is the reduction that is creditable from each control between 2018 and 2019. If the control has been turned off by inputting a "No" in the "Use this control for 2019 RFP contingency demonstration?" column, the spreadsheet will put a zero in for the reduction for that control on this sheet, even if a positive value for the control was input into the Enter Reductions 1 NDC 2019 sheet. If it was intended to have a positive reduction for the control but there is a zero, go back to the Enter Reductions 9 PDC 2019 Sheet and change the No to a Yes indicating that the control will be used for RFP contingency demonstration.

RFP Control Strategy Description	Source Category	Total 2018 to 2019 NO_X Emissions Reductions (tpd)	Total 2018 to 2019 VOC Emissions Reductions (tpd)	Use this control for 2019 RFP contingency demonstration? (Yes or No)
Chapter 117 NOX controls	Point	0.00	0.00	No
Chapter 115 Storage Tank Rule	Point	0.00	0.00	No
Coating / printing rules	Point	0.00	0.00	No
Portable fuel containers	Area	0.00	0.00	No
Federal Motor Vehicle Control Program (FMVCP)	OR	0.85	0.21	Yes
Inspection and Maintenance (I/M)	OR	0.00	0.00	Yes
Reformulated Gasoline (RFG)/East Texas Regional Low RVP	OR	-0.06	-0.02	Yes
On-road TxLED	OR	-0.01	0.00	Yes
Tier I and II locomotive NOX standards	NR	0.00	0.00	No
Small non-road spark ignition (SI) engines (Phase I)	NR	0.00	0.01	Yes
Heavy duty non-road engines	NR	0.01	0.01	Yes
Tiers 2 and 3 non-road diesel engines	NR	0.02	-0.01	Yes
Small non-road SI engines (Phase II)	NR	0.00	0.00	Yes
Large non-road SI & recreational marine	NR	0.01	0.02	Yes
Non-road TxLED	NR	-0.01	0.00	Yes
Non-road RFG	NR	0.00	0.00	Yes
Tier 4 non-road diesel engines	NR	0.09	0.00	Yes
Diesel recreational marine	NR	0.00	0.00	Yes
Small SI (Phase III)	NR	0.00	0.02	Yes
Chapter 117 NOX area source engine controls	Area	0.00	0.00	No
Drilling rig low emission diesel	Area	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
Total 1 NDC RFP Control Reductions		0.90	0.24	

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Attachment A - Sheet 56

Calculations: Combined 9 PDC and 1 NDC 2011 to 2017 Control Measures Reductions

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NO_X

All Ten Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

Explanation: The control strategy name, control reduction amount, status of inclusion of the control in the RFP calculations, and whether or not the control is for on-road mobile sources were all input in sheet "34 Enter Reductions 9 PDC 2019." The reduction is the reduction that is creditable from each control between 2018 and 2019. If the control has been turned off by inputting a "No" in the "Use this control for 2019 RFP contingency demonstration?" column, the spreadsheet will put a zero in for the reduction for that control on this sheet, even if a positive value for the control was input into the Enter Reductions 9 PDC 2019 sheet. If it was intended to have a positive reduction for the control but there is a zero, go back to the Enter Reductions 9 PDC 2019 Sheet and change the No to a Yes indicating that the control will be used for RFP contingency demonstration.

RFP Control Strategy Description	Source Category	Total 2011 to 2017 NOX Emissions Reductions (tpd)	Total 2011 to 2017 VOC Emissions Reductions (tpd)	Use this control for 2019 RFP contingency demonstration? (Yes or No)
Chapter 117 NOX controls	Point	0.00	0.00	No
Chapter 115 Storage Tank Rule	Point	0.00	0.00	No
Coating / printing rules	Point	0.00	0.00	No
Portable fuel containers	Area	0.00	0.00	No
Federal Motor Vehicle Control Program (FMVCP)	OR	36.27	14.34	Yes
Inspection and Maintenance (I/M)	OR	-1.13	-0.58	Yes
Reformulated Gasoline (RFG)/East Texas Regional Low RVP	OR	-3.99	-1.12	Yes
On-road TxLED	OR	-0.32	0.00	Yes
Tier I and II locomotive NOX standards	NR	0.00	0.00	No
Small non-road spark ignition (SI) engines (Phase I)	NR	-0.09	0.77	Yes
Heavy duty non-road engines	NR	1.93	0.78	Yes
Tiers 2 and 3 non-road diesel engines	NR	2.94	0.38	Yes
Small non-road SI engines (Phase II)	NR	0.06	0.73	Yes
Large non-road SI & recreational marine	NR	1.40	1.00	Yes
Non-road TxLED	NR	-0.47	0.00	Yes
Non-road RFG	NR	-0.01	0.01	Yes
Tier 4 non-road diesel engines	NR	3.26	0.17	Yes
Diesel recreational marine	NR	0.00	0.00	Yes
Small SI (Phase III)	NR	0.10	0.86	Yes
Chapter 117 NOX area source engine controls	Area	0.00	0.00	No
Drilling rig low emission diesel	Area	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
This row not used for current RFP	UK	0.00	0.00	No
Total 2019 10 NAC RFP Control Reductions		39.95	17.34	

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Attachment A - Sheet 57

Calculations: 2011 to 2017 On-road Control Measures Reductions

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NOX

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

Creditable Reductions Control Strategy	Control Used for RFP Demonstration?	On-road Mobile Source Control?	Total 2011 - 2017 'On-road Mobile NO_X Emissions Reductions (tpd)	Total 2011 - 2017 'On-road Mobile VOC Emissions Reductions (tpd)
Chapter 117 NOX controls	Yes	No	0	0
Chapter 115 Storage Tank Rule	Yes	No	0	0
Coating / printing rules	Yes	No	0	0
Portable fuel containers	Yes	No	0.00	0.00
Federal Motor Vehicle Control Program (FMVCP)	Yes	Yes	648.53	313.28
Inspection and Maintenance (I/M)	Yes	Yes	12.09	10.44
Reformulated Gasoline (RFG)/East Texas Regional Low RVP	Yes	Yes	52.41	22.75
On-road TxLED	Yes	Yes	3.79	0
Tier I and II locomotive NOX standards	Yes	No	0	0
Small non-road spark ignition (SI) engines (Phase I)	Yes	No	0	0
Heavy duty non-road engines	Yes	No	0	0
Tiers 2 and 3 non-road diesel engines	Yes	No	0	0
Small non-road SI engines (Phase II)	Yes	No	0	0
Large non-road SI & recreational marine	Yes	No	0	0
Non-road TxLED	Yes	No	0	0
Non-road RFG	Yes	No	0	0
Tier 4 non-road diesel engines	Yes	No	0	0
Diesel recreational marine	Yes	No	0	0
Small SI (Phase III)	Yes	No	0	0
Chapter 117 NOX area source engine controls	Yes	No	0	0
Drilling rig low emission diesel	Yes	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
Total 9 PDC On-road Mobile Source RFP Control Reductions			**716.82**	**346.47**

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Attachment A - Sheet 58

Calculations: 2011 to 2017 On-road Control Measures Reductions

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NOX

One Newly Designated Nonattainment County: Wise

Creditable Reductions Control Strategy	Control Used for RFP Demonstration?	On-road Mobile Source Control?	Total 2011 - 2017 'On-road Mobile NO_X Emissions Reductions (tpd)	Total 2011 - 2017 'On-road Mobile VOC Emissions Reductions (tpd)
Chapter 117 NOX controls	Yes	No	0	0
Chapter 115 Storage Tank Rule	Yes	No	0	0
Coating / printing rules	Yes	No	0	0
Portable fuel containers	Yes	No	0.00	0.00
Federal Motor Vehicle Control Program (FMVCP)	Yes	Yes	13.81	3.45
Inspection and Maintenance (I/M)	Yes	Yes	0	0
Reformulated Gasoline (RFG)/East Texas Regional Low RVP	Yes	Yes	0.79	0.2
On-road TxLED	Yes	Yes	0.11	0
Tier I and II locomotive NOX standards	Yes	No	0	0
Small non-road spark ignition (SI) engines (Phase I)	Yes	No	0	0
Heavy duty non-road engines	Yes	No	0	0
Tiers 2 and 3 non-road diesel engines	Yes	No	0	0
Small non-road SI engines (Phase II)	Yes	No	0	0
Large non-road SI & recreational marine	Yes	No	0	0
Non-road TxLED	Yes	No	0	0
Non-road RFG	Yes	No	0	0
Tier 4 non-road diesel engines	Yes	No	0	0
Diesel recreational marine	Yes	No	0	0
Small SI (Phase III)	Yes	No	0	0
Chapter 117 NOX area source engine controls	Yes	No	0	0
Drilling rig low emission diesel	Yes	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
Total 1 NDC On-road Mobile Source RFP Control Reductions			**14.71**	**3.65**

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Attachment A - Sheet 59

Calculations: 2011 to 2017 On-road Control Measures Reductions

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NOX

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

Creditable Reductions Control Strategy	Control Used for RFP Demonstration?	On-road Mobile Source Control?	Total 2011 - 2017 'On-road Mobile NO_X Emissions Reductions (tpd)	Total 2011 - 2017 'On-road Mobile VOC Emissions Reductions (tpd)
Chapter 117 NOX controls	Yes	No	0	0
Chapter 115 Storage Tank Rule	Yes	No	0	0
Coating / printing rules	Yes	No	0	0
Portable fuel containers	Yes	No	0.00	0.00
Federal Motor Vehicle Control Program (FMVCP)	Yes	Yes	662.34	316.73
Inspection and Maintenance (I/M)	Yes	Yes	12.09	10.44
Reformulated Gasoline (RFG)/East Texas Regional Low RVP	Yes	Yes	53.2	22.95
On-road TxLED	Yes	Yes	3.9	0
Tier I and II locomotive NOX standards	Yes	No	0	0
Small non-road spark ignition (SI) engines (Phase I)	Yes	No	0	0
Heavy duty non-road engines	Yes	No	0	0
Tiers 2 and 3 non-road diesel engines	Yes	No	0	0
Small non-road SI engines (Phase II)	Yes	No	0	0
Large non-road SI & recreational marine	Yes	No	0	0
Non-road TxLED	Yes	No	0	0
Non-road RFG	Yes	No	0	0
Tier 4 non-road diesel engines	Yes	No	0	0
Diesel recreational marine	Yes	No	0	0
Small SI (Phase III)	Yes	No	0	0
Chapter 117 NOX area source engine controls	Yes	No	0	0
Drilling rig low emission diesel	Yes	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
Total 9 PDC On-road Mobile Source RFP Control Reductions			**731.53**	**350.12**

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Attachment A - Sheet 60

Calculations: 2011 to 2018 On-road Control Measures Reductions

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NOX

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

Creditable Reductions Control Strategy	Control Used for RFP Demonstration?	On-road Mobile Source Control?	Total 2011 - 2018 'On-road Mobile NO_X Emissions Reductions (tpd)	Total 2011 - 2018 'On-road Mobile VOC Emissions Reductions (tpd)
Chapter 117 NOX controls	Yes	No	0	0
Chapter 115 Storage Tank Rule	Yes	No	0	0
Coating / printing rules	Yes	No	0	0
Portable fuel containers	Yes	No	0.00	0.00
Federal Motor Vehicle Control Program (FMVCP)	Yes	Yes	689.63	329.4
Inspection and Maintenance (I/M)	Yes	Yes	10.69	9.93
Reformulated Gasoline (RFG)/East Texas Regional Low RVP	Yes	Yes	48.39	21.36
On-road TxLED	Yes	Yes	3.36	0
Tier I and II locomotive NOX standards	Yes	No	0	0
Small non-road spark ignition (SI) engines (Phase I)	Yes	No	0	0
Heavy duty non-road engines	Yes	No	0	0
Tiers 2 and 3 non-road diesel engines	Yes	No	0	0
Small non-road SI engines (Phase II)	Yes	No	0	0
Large non-road SI & recreational marine	Yes	No	0	0
Non-road TxLED	Yes	No	0	0
Non-road RFG	Yes	No	0	0
Tier 4 non-road diesel engines	Yes	No	0	0
Diesel recreational marine	Yes	No	0	0
Small SI (Phase III)	Yes	No	0	0
Chapter 117 NOX area source engine controls	Yes	No	0	0
Drilling rig low emission diesel	Yes	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
Total 9 PDC On-road Mobile Source RFP Control Reductions			**752.07**	**360.69**

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Attachment A - Sheet 61

Calculations: 2011 to 2017 On-road Control Measures Reductions

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NOX

One Newly Designated Nonattainment County: Wise

Creditable Reductions Control Strategy	Control Used for RFP Demonstration?	On-road Mobile Source Control?	Total 2011- 2018 'On-road Mobile NO_X Emissions Reductions (tpd)	Total 2011 - 2018 'On-road Mobile VOC Emissions Reductions (tpd)
Chapter 117 NOX controls	Yes	No	0	0
Chapter 115 Storage Tank Rule	Yes	No	0	0
Coating / printing rules	Yes	No	0	0
Portable fuel containers	Yes	No	0.00	0.00
Federal Motor Vehicle Control Program (FMVCP)	Yes	Yes	14.71	3.66
Inspection and Maintenance (I/M)	Yes	Yes	0	0
Reformulated Gasoline (RFG)/East Texas Regional Low RVP	Yes	Yes	0.73	0.19
On-road TxLED	Yes	Yes	0.09	0
Tier I and II locomotive NOX standards	Yes	No	0	0
Small non-road spark ignition (SI) engines (Phase I)	Yes	No	0	0
Heavy duty non-road engines	Yes	No	0	0
Tiers 2 and 3 non-road diesel engines	Yes	No	0	0
Small non-road SI engines (Phase II)	Yes	No	0	0
Large non-road SI & recreational marine	Yes	No	0	0
Non-road TxLED	Yes	No	0	0
Non-road RFG	Yes	No	0	0
Tier 4 non-road diesel engines	Yes	No	0	0
Diesel recreational marine	Yes	No	0	0
Small SI (Phase III)	Yes	No	0	0
Chapter 117 NOX area source engine controls	Yes	No	0	0
Drilling rig low emission diesel	Yes	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
Total 1 NDC On-road Mobile Source RFP Control Reductions			**15.53**	**3.85**

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Attachment A - Sheet 62

Calculations: 2011 to 2017 On-road Control Measures Reductions

DFW Nonattainment Area Eight-Hour Ozone Season VOC and NOX

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

Creditable Reductions Control Strategy	Control Used for RFP Demonstration?	On-road Mobile Source Control?	Total 2011 - 2018 'On-road Mobile NO_X Emissions Reductions (tpd)	Total 2011 - 2018 'On-road Mobile VOC Emissions Reductions (tpd)
Chapter 117 NOX controls	Yes	No	0	0
Chapter 115 Storage Tank Rule	Yes	No	0	0
Coating / printing rules	Yes	No	0	0
Portable fuel containers	Yes	No	0.00	0.00
Federal Motor Vehicle Control Program (FMVCP)	Yes	Yes	704.34	333.06
Inspection and Maintenance (I/M)	Yes	Yes	10.69	9.93
Reformulated Gasoline (RFG)/East Texas Regional Low RVP	Yes	Yes	49.12	21.55
On-road TxLED	Yes	Yes	3.45	0
Tier I and II locomotive NOX standards	Yes	No	0	0
Small non-road spark ignition (SI) engines (Phase I)	Yes	No	0	0
Heavy duty non-road engines	Yes	No	0	0
Tiers 2 and 3 non-road diesel engines	Yes	No	0	0
Small non-road SI engines (Phase II)	Yes	No	0	0
Large non-road SI & recreational marine	Yes	No	0	0
Non-road TxLED	Yes	No	0	0
Non-road RFG	Yes	No	0	0
Tier 4 non-road diesel engines	Yes	No	0	0
Diesel recreational marine	Yes	No	0	0
Small SI (Phase III)	Yes	No	0	0
Chapter 117 NOX area source engine controls	Yes	No	0	0
Drilling rig low emission diesel	Yes	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
This row not used for current RFP	No	No	0	0
Total 9 PDC On-road Mobile Source RFP Control Reductions			**767.60**	**364.54**

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Appendix 1 - Sheet 63

Summary Sheet: Uncontrolled or Existing Control NOX Emissions Inventory
DFW Eight-Hour Ozone Nonattainment Area
Ten Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

2011 Uncontrolled or Existing Control NOX (tons per day)

RFP Analysis Year	9 PDC	1 NDC	10 NAC Total
Area Sources	30.48	12.14	42.62
Non-Road Mobile Sources	188.80	12.19	200.99
On-Road Mobile Sources	736.68	16.34	753.02
Point Sources	31.34	8.61	39.95
Total	987.30	49.28	1036.58

2017 Uncontrolled or Existing Control NOX (tons per day)

RFP Analysis Year	9 PDC	1 NDC	10 NAC Total
Area Sources	30.91	9.72	40.63
Non-Road Mobile Sources	206.27	11.17	217.44
On-Road Mobile Sources	860.90	18.28	879.18
Point Sources	46.71	10.21	56.92
Total	1,144.79	49.38	1,194.17

2018 Uncontrolled or Existing Control NOX (tons per day)

RFP Analysis Year	9 PDC	1 NDC	10 NAC Total
Area Sources	29.93	7.44	37.37
Non-Road Mobile Sources	206.03	10.61	216.64
On-Road Mobile Sources	881.68	18.74	900.42
Point Sources	45.90	9.71	55.61
Total	1,163.54	46.50	1,210.04

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Attachment A - Sheet 64

Summary Sheet: Controlled or Post-2011 Controlled NOX Emissions Inventory
DFW Eight-Hour Ozone Nonattainment Area
Ten Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

Controlled or Post-2011 Controlled NOX for 2011(tons per day)

RFP Analysis Year	9 PDC	1 NDC	10 NAC Total
Area Sources	30.48	12.14	42.62
Non-Road Mobile Sources	112.98	6.85	119.83
On-Road Mobile Sources	230.75	5.99	236.74
Point Sources	31.34	8.61	39.95
Total	405.55	33.59	439.14

Controlled or Post-2011 Controlled NOX for 2017 (tons per day)

RFP Analysis Year	9 PDC	1 NDC	10 NAC Total
Area Sources	30.91	9.72	40.63
Non-Road Mobile Sources	81.54	4.71	86.25
On-Road Mobile Sources	144.08	3.57	147.65
Point Sources	46.71	10.21	56.92
Total	303.24	28.21	331.45

Controlled or Post-2011 Controlled NOX for 2018 (tons per day)

RFP Analysis Year	9 PDC	1 NDC	10 NAC Total
Area Sources	29.93	7.44	37.37
Non-Road Mobile Sources	76.38	4.18	80.56
On-Road Mobile Sources	129.61	3.21	132.82
Point Sources	45.90	9.71	55.61
Total	281.82	24.54	306.36

Note: The controlled inventory shown here includes all controls. The controlled RFP inventory may not include all controls and may therefore be a higher value than shown here.

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Go to Enter On-road EI
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Attachment A - Sheet 65

Summary Sheet: Uncontrolled or Existing Control VOC Emissions Inventory
DFW Eight-Hour Ozone Nonattainment Area
Ten Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

2011 Uncontrolled or Existing Control VOC (tons per day)

RFP Analysis Year	9 PDC	1 NDC	10 NAC Total
Area Sources	263.30	29.18	292.48
Non-Road Mobile Sources	130.51	2.73	133.24
On-Road Mobile Sources	355.31	4.34	359.65
Point Sources	27.66	2.14	29.80
Total	776.78	38.39	815.17

2017 Uncontrolled or Existing Control VOC (tons per day)

RFP Analysis Year	9 PDC	1 NDC	10 NAC Total
Area Sources	266.15	23.74	289.89
Non-Road Mobile Sources	150.44	2.75	153.19
On-Road Mobile Sources	416.88	4.89	421.77
Point Sources	30.84	3.41	34.25
Total	864.31	34.79	899.10

2018 Uncontrolled or Existing Control VOC (tons per day)

RFP Analysis Year	9 PDC	1 NDC	10 NAC Total
Area Sources	258.70	19.17	277.87
Non-Road Mobile Sources	152.56	2.71	155.27
On-Road Mobile Sources	427.12	5.01	432.13
Point Sources	29.83	2.88	32.71
Total	868.21	29.77	897.98

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Attachment A - Sheet 66

Summary Sheet: Controlled or Post-2011 Controlled VOC Emissions Inventory
DFW Eight-Hour Ozone Nonattainment Area
Ten Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

Controlled or Post-2011 Controlled VOC for 2011 (tons per day)

RFP Analysis Year	9 PDC	1 NDC	10 NAC Total
Area Sources	263.30	29.18	292.48
Non-Road Mobile Sources	53.74	1.25	54.99
On-Road Mobile Sources	99.39	1.81	101.20
Point Sources	27.66	2.14	29.80
Total	444.09	34.38	478.47

Controlled or Post-2011 Controlled VOC for 2017 (tons per day)

RFP Analysis Year	9 PDC	1 NDC	10 NAC Total
Area Sources	266.15	23.74	289.89
Non-Road Mobile Sources	37.01	0.82	37.83
On-Road Mobile Sources	70.41	1.24	71.65
Point Sources	30.84	3.41	34.25
Total	404.41	29.21	433.62

Controlled or Post-2011 Controlled VOC for 2018 (tons per day)

RFP Analysis Year	9 PDC	1 NDC	10 NAC Total
Area Sources	258.70	19.17	277.87
Non-Road Mobile Sources	36.15	0.77	36.92
On-Road Mobile Sources	66.43	1.16	67.59
Point Sources	29.83	2.88	32.71
Total	391.11	23.98	415.09

Note: The controlled inventory shown here includes all controls. The controlled RFP inventory may not include all controls and may therefore be a higher value than shown here.

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Attachment A - Sheet 67

Summary Sheet: 2011 Emissions Inventory By Category
DFW Eight-Hour Ozone Nonattainment Area
Ten Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

2011 9 PDC (tons per day)

Emissons Inventory Source	Uncontrolled or Existing Control NOx	Controlled or Post-2011 Controlled NOx	Uncontrolled or Existing Control VOC	Controlled or Post-2011 Controlled VOC
Area Sources	30.48	30.48	263.30	263.30
Non-Road Mobile Sources	188.80	112.98	130.51	53.74
On-Road Mobile Sources	736.68	230.75	355.31	99.39
Point Sources	31.34	31.34	27.66	27.66
Total	987.30	405.55	776.78	444.09

2011 1 NDC (tons per day)

Emissons Inventory Source	Uncontrolled or Existing Control NOx	Controlled or Post-2011 Controlled NOx	Uncontrolled or Existing Control VOC	Controlled or Post-2011 Controlled VOC
Area Sources	12.14	12.14	29.18	29.18
Non-Road Mobile Sources	12.19	6.85	2.73	1.25
On-Road Mobile Sources	16.34	5.99	4.34	1.81
Point Sources	8.61	8.61	2.14	2.14
Total	49.28	33.59	38.39	34.38

2011 10 NAC Total (tons per day)

Emissons Inventory Source	Uncontrolled or Existing Control NOx	Controlled or Post-2011 Controlled NOx	Uncontrolled or Existing Control VOC	Controlled or Post-2011 Controlled VOC
Area Sources	42.62	42.62	292.48	292.48
Non-Road Mobile Sources	200.99	119.83	133.24	54.99
On-Road Mobile Sources	753.02	236.74	359.65	101.20
Point Sources	39.95	39.95	29.80	29.80
Total	1036.58	439.14	815.17	478.47

Note: The controlled inventory shown here includes all controls. The controlled RFP inventory may not include all controls and may therefore be a higher value than shown here.

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Attachment A - Sheet 68

Summary Sheet: 2017 Emissions Inventory By Category
DFW Eight-Hour Ozone Nonattainment Area
Ten Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

2017 9 PDC (tons per day)

Emissons Inventory Source	Uncontrolled or Existing Control NOx	Controlled or Post-2011 Controlled NOx	Uncontrolled or Existing Control VOC	Controlled or Post-2011 Controlled VOC
Area Sources	30.91	30.91	266.15	266.15
Non-Road Mobile Sources	206.27	81.54	150.44	37.01
On-Road Mobile Sources	860.90	144.08	416.88	70.41
Point Sources	46.71	46.71	30.84	30.84
Total	1144.79	303.24	864.31	404.41

2017 1 NDC (tons per day)

Emissons Inventory Source	Uncontrolled or Existing Control NOx	Controlled or Post-2011 Controlled NOx	Uncontrolled or Existing Control VOC	Controlled or Post-2011 Controlled VOC
Area Sources	9.72	9.72	23.74	23.74
Non-Road Mobile Sources	11.17	4.71	2.75	0.82
On-Road Mobile Sources	18.28	3.57	4.89	1.24
Point Sources	10.21	10.21	3.41	3.41
Total	49.38	28.21	34.79	29.21

2017 10 NAC Total (tons per day)

Emissons Inventory Source	Uncontrolled or Existing Control NOx	Controlled or Post-2011 Controlled NOx	Uncontrolled or Existing Control VOC	Controlled or Post-2011 Controlled VOC
Area Sources	40.63	40.63	289.89	289.89
Non-Road Mobile Sources	217.44	86.25	153.19	37.83
On-Road Mobile Sources	879.18	147.65	421.77	71.65
Point Sources	56.92	56.92	34.25	34.25
Total	1194.17	331.45	899.10	433.62

Note: The controlled inventory shown here includes all controls. The controlled RFP inventory may not include all controls and may therefore be a higher value than shown here.

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Attachment A - Sheet 69

Summary Sheet: 2018 Emissions Inventory By Category
DFW Eight-Hour Ozone Nonattainment Area
Ten Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

2018 9 PDC (tons per day)

Emissons Inventory Source	Uncontrolled or Existing Control NOx	Controlled or Post-2011 Controlled NOx	Uncontrolled or Existing Control VOC	Controlled or Post-2011 Controlled VOC
Area Sources	29.93	29.93	258.70	258.70
Non-Road Mobile Sources	206.03	76.38	152.56	36.15
On-Road Mobile Sources	881.68	129.61	427.12	66.43
Point Sources	45.90	45.90	29.83	29.83
Total	1163.54	281.82	868.21	391.11

2018 1 NDC (tons per day)

Emissons Inventory Source	Uncontrolled or Existing Control NOx	Controlled or Post-2011 Controlled NOx	Uncontrolled or Existing Control VOC	Controlled or Post-2011 Controlled VOC
Area Sources	7.44	7.44	19.17	19.17
Non-Road Mobile Sources	10.61	4.18	2.71	0.77
On-Road Mobile Sources	18.74	3.21	5.01	1.16
Point Sources	9.71	9.71	2.88	2.88
Total	46.50	24.54	29.77	23.98

2018 10 NAC Total (tons per day)

Emissons Inventory Source	Uncontrolled or Existing Control NOx	Controlled or Post-2011 Controlled NOx	Uncontrolled or Existing Control VOC	Controlled or Post-2011 Controlled VOC
Area Sources	37.37	37.37	277.87	277.87
Non-Road Mobile Sources	216.64	80.56	155.27	36.92
On-Road Mobile Sources	900.42	132.82	432.13	67.59
Point Sources	55.61	55.61	32.71	32.71
Total	1210.04	306.36	897.98	415.09

Note: The controlled inventory shown here includes all controls. The controlled RFP inventory may not include all controls and may therefore be a higher value than shown here.

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Attachment A - Sheet 70

Summary Airport Emissions Inventory (Aircraft Plus GSE)
DFW Eight-Hour Ozone Nonattainment Area

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
9 PDC 2011	10.95	10.38	0.57	5.21	3.34	3.23	0.11	3.29
9 PDC 2017	11.90	11.48	0.42	3.53	3.51	3.46	0.05	1.42
9 PDC 2018	12.32	11.98	0.34	2.76	3.71	3.61	0.10	2.70

One Newly Designated Nonattainment County: Wise

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
1 NDC 2011	0.01	0.01	0.00	0.00	0.01	0.01	0.00	0.00
1 NDC 2017	0.01	0.01	0.00	0.00	0.01	0.01	0.00	0.00
1 NDC 2018	0.02	0.02	0.00	0.00	0.02	0.02	0.00	0.00

Total Ten Ozone Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
10 County Total 2011	10.96	10.39	0.57	5.20	3.35	3.24	0.11	3.28
10 County Total 2017	11.91	11.49	0.42	3.53	3.52	3.47	0.05	1.42
10 County total 2018	12.34	12.00	0.34	2.76	3.73	3.63	0.10	2.68

Notes:

1) 1 NDC means the one newly designated county and indicates values are for the one county in the DFW ozone nonattainment area that was newly designated under the2008 eight-hour ozone standard. Includes: Wise County.

2) 9 PDC means the nine existing nonattainment counties and indicates values are for the nine counties that had an existing designation under the one-hour ozone standard and/or under the 1997 eight-hour ozone standard. Includes: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant Counties.

3) 10 County Total means the values include the ten DFW area nonattainment counties designated under the 2008 eight-hour ozone standard.

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Summary Total Non-Road Emissions Inventory
DFW Eight-Hour Ozone Nonattainment Area

Nine Previously Designated Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
9 PDC 2011	188.80	112.98	75.82	40.16	130.51	53.74	76.77	58.82
9 PDC 2017	206.27	81.54	124.73	60.47	150.44	37.01	113.43	75.40
9 PDC 2018	206.03	76.38	129.65	62.93	152.56	36.15	116.41	76.30

One Newly Designated Nonattainment County: Wise

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
1 NDC 2011	12.19	6.85	5.34	43.81	2.73	1.25	1.48	54.21
1 NDC 2017	11.17	4.71	6.46	57.83	2.75	0.82	1.93	70.18
1 NDC 2018	10.61	4.18	6.43	60.60	2.71	0.77	1.94	71.59

Total Ten Ozone Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

'RFP Analysis Year	Uncontrolled NO_X (tpd)	Controlled NO_X (tpd)	Total Reduction NO_X (tpd)	Percent Reduction	Uncontrolled VOC (tpd)	Controlled VOC (tpd)	Total Reduction VOC (tpd)	Percent Reduction
10 County Total 2011	200.99	119.83	81.16	40.38	133.24	54.99	78.25	58.73
10 County Total 2017	217.44	86.25	131.19	60.33	153.19	37.83	115.36	75.31
10 County total 2018	216.64	80.56	136.08	62.81	155.27	36.92	118.35	76.22

Notes:

1) 1 NDC means the one newly designated county and indicates values are for the one county in the DFW ozone nonattainment area that was newly designated under the2008 eight-hour ozone standard. Includes: Wise County.

2) 9 PDC means the nine existing nonattainment counties and indicates values are for the nine counties that had an existing designation under the one-hour ozone standard and/or under the 1997 eight-hour ozone standard. Includes: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant Counties.

3) 10 County Total means the values include the ten DFW area nonattainment counties designated under the 2008 eight-hour ozone standard.

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Summary Sheet: 2011 Non-Road Summary by Category
DFW Eight-Hour Ozone Nonattainment Area
Ten Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

2011 9 PDC (tons per day)

Emissons Inventory Source	Uncontrolled NOx	Controlled NOx	Uncontrolled VOC	Controlled VOC
Airport	10.95	10.38	3.34	3.23
Locomotive	26.98	21.75	1.79	1.24
Marine	0.00	0.00	0.00	0.00
NONROAD Model	127.53	68.39	122.77	48.66
Drilling Rigs	23.34	12.46	2.61	0.61
Total All	188.80	112.98	130.51	53.74
Total ALM	37.93	32.13	5.13	4.47
ALM Plus Drilling Rigs (Off-road)	61.27	44.59	7.74	5.08

2011 1 NDC (tons per day)

Emissons Inventory Source	Uncontrolled NOx	Controlled NOx	Uncontrolled VOC	Controlled VOC
Airport	0.01	0.01	0.01	0.01
Locomotive	3.27	2.51	0.22	0.14
Marine	0.00	0.00	0.00	0.00
NONROAD Model	5.18	2.34	2.08	1.00
Drilling Rigs	3.73	1.99	0.42	0.10
Total All	12.19	6.85	2.73	1.25
Total ALM	3.28	2.52	0.23	0.15
ALM Plus Drilling Rigs (Off-road)	7.01	4.51	0.65	0.25

2011 10 NAC Total (tons per day)

Emissons Inventory Source	Uncontrolled NOx	Controlled NOx	Uncontrolled VOC	Controlled VOC
Airport	10.96	10.39	3.35	3.24
Locomotive	30.25	24.26	2.01	1.38
Marine	0.00	0.00	0.00	0.00
NONROAD Model	132.71	70.73	124.85	49.66
Drilling Rigs	27.07	14.45	3.03	0.71
Total All	200.99	119.83	133.24	54.99
Total ALM	41.21	34.65	5.36	4.62
ALM Plus Drilling Rigs (Off-road)	68.28	49.10	8.39	5.33

Note: The controlled inventory shown here includes all controls. The controlled RFP inventory may not include all controls and may therefore be a higher value than shown here.

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Summary Sheet: 2017 Non-Road Summary by Category
DFW Eight-Hour Ozone Nonattainment Area
Ten Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

2017 9 PDC (tons per day)

Emissons Inventory Source	Uncontrolled NOx	Controlled NOx	Uncontrolled VOC	Controlled VOC
Airport	11.90	11.48	3.51	3.46
Locomotive	22.34	18.01	1.27	0.88
Marine	0.00	0.00	0.00	0.00
NONROAD Model	153.34	42.07	143.57	32.18
Drilling Rigs	18.69	9.98	2.09	0.49
Total All	206.27	81.54	150.44	37.01
Total ALM	34.24	29.49	4.78	4.34
ALM Plus Drilling Rigs (Off-road)	52.93	39.47	6.87	4.83

2017 1 NDC (tons per day)

Emissons Inventory Source	Uncontrolled NOx	Controlled NOx	Uncontrolled VOC	Controlled VOC
Airport	0.01	0.01	0.01	0.01
Locomotive	2.58	1.98	0.14	0.09
Marine	0.00	0.00	0.00	0.00
NONROAD Model	5.68	1.17	2.27	0.64
Drilling Rigs	2.90	1.55	0.33	0.08
Total All	11.17	4.71	2.75	0.82
Total ALM	2.59	1.99	0.15	0.10
ALM Plus Drilling Rigs (Off-road)	5.49	3.54	0.48	0.18

2017 10 NAC Total (tons per day)

Emissons Inventory Source	Uncontrolled NOx	Controlled NOx	Uncontrolled VOC	Controlled VOC
Airport	11.91	11.49	3.52	3.47
Locomotive	24.92	19.99	1.41	0.97
Marine	0.00	0.00	0.00	0.00
NONROAD Model	159.02	43.24	145.84	32.82
Drilling Rigs	21.59	11.53	2.42	0.57
Total All	217.44	86.25	153.19	37.83
Total ALM	36.83	31.48	4.93	4.44
ALM Plus Drilling Rigs (Off-road)	58.42	43.01	7.35	5.01

Note: The controlled inventory shown here includes all controls. The controlled RFP inventory may not include all controls and may therefore be a higher value than shown here.

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Summary Sheet: 2018 Non-Road Summary by Category
DFW Eight-Hour Ozone Nonattainment Area
Ten Nonattainment Counties: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise

2018 9 PDC (tons per day)

Emissons Inventory Source	Uncontrolled NOx	Controlled NOx	Uncontrolled VOC	Controlled VOC
Airport	12.32	11.98	3.71	3.61
Locomotive	23.01	17.82	1.31	0.85
Marine	0.00	0.00	0.00	0.00
NONROAD Model	156.51	39.01	145.95	31.32
Drilling Rigs	14.19	7.57	1.59	0.37
Total All	206.03	76.38	152.56	36.15
Total ALM	35.33	29.80	5.02	4.46
ALM Plus Drilling Rigs (Off-road)	49.52	37.37	6.61	4.83

2018 1 NDC (tons per day)

Emissons Inventory Source	Uncontrolled NOx	Controlled NOx	Uncontrolled VOC	Controlled VOC
Airport	0.02	0.02	0.02	0.02
Locomotive	2.66	1.94	0.15	0.08
Marine	0.00	0.00	0.00	0.00
NONROAD Model	5.71	1.04	2.29	0.61
Drilling Rigs	2.22	1.18	0.25	0.06
Total All	10.61	4.18	2.71	0.77
Total ALM	2.68	1.96	0.17	0.10
ALM Plus Drilling Rigs (Off-road)	4.90	3.14	0.42	0.16

2018 10 NAC Total (tons per day)

Emissons Inventory Source	Uncontrolled NOx	Controlled NOx	Uncontrolled VOC	Controlled VOC
Airport	12.34	12.00	3.73	3.63
Locomotive	25.67	19.76	1.46	0.93
Marine	0.00	0.00	0.00	0.00
NONROAD Model	162.22	40.05	148.24	31.93
Drilling Rigs	16.41	8.75	1.84	0.43
Total All	216.64	80.56	155.27	36.92
Total ALM	38.01	31.76	5.19	4.56
ALM Plus Drilling Rigs (Off-road)	54.42	40.51	7.03	4.99

Note: The controlled inventory shown here includes all controls. The controlled RFP inventory may not include all controls and may therefore be a higher value than shown here.

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