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November 23, 2011

BY ELECTRONIC MAIL & CERTIFIED MAIL,
RETURN RECEIPT REQUESTED

Ms. Lisa P. Jackson
Administrator
Mail Code 1101A
U. S. Environmental Protection Agency
Ariel Rios Building, Room 3000
1200 Pennsylvania Avenue N.W.
Washington, DC 20460

Re: Docket No. EPA-HQ-OAR-2009-0491; Topaz Power Group, LLC's Comments on Proposed Revisions to the Cross-State Air Pollution Rule and Petition for Reconsideration of the Cross-State Air Pollution Rule

Dear Administrator Jackson:

Attached please find *Topaz Power Group, LLC's Comments on Proposed Revisions to the Cross-State Air Pollution Rule and Petition for Reconsideration of the Cross-State Air Pollution Rule*, Docket No. EPA-HQ-OAR-2009-0491.

Topaz offers the attached document both as comments on the currently-proposed revisions to the Cross-State Air Pollution Rule and as a Petition for Reconsideration of the original rule. Accordingly, Topaz is submitting the attached document directly to your attention, as well as to the above-referenced comment docket.

Thank you for your assistance.

Sincerely,

Derek R. McDonald

Enclosure

cc: *(Via Electronic Mail & Certified Mail, Return Receipt Requested; Comments will also be e-filed via www.regulations.gov.)*

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Ms. Sonja Rodman
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November 22, 2011

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TOPAZ POWER GROUP, LLC'S
COMMENTS ON PROPOSED REVISIONS TO
THE CROSS-STATE AIR POLLUTION RULE
AND
PETITION FOR RECONSIDERATION OF
THE CROSS-STATE AIR POLLUTION RULE

Docket No. EPA-HQ-OAR-2009-0491

Topaz Power Group, LLC ("Topaz") appreciates the opportunity to comment on EPA's proposed revisions to the Cross-State Air Pollution Rule ("CSAPR"). *See* 76 Fed. Reg. 63,860 (Oct. 14, 2011).[1] Topaz generally supports the rule's implementation, and Topaz also supports EPA's efforts to improve the workability of the rule and its underlying assumptions and inputs through the proposed revisions. Consistent with that effort, Topaz believes that the emissions allowances granted under the CSAPR Federal Implementation Plan ("FIP") to several of the electric generating units that Topaz operates in Texas should be adjusted with the other proposed revisions to the rule. Topaz has completed several major repowering projects at its three plants

[1] CSAPR was originally published in the Federal Register at 76 Fed. Reg. 48,208 (Aug. 8, 2011).

in Texas, and the allowances granted to the repowered units do not account for the substantial emissions reductions obtained by those projects prior to the issuance of CSAPR but within the relevant time period under the CSAPR FIP's allocation methodology. Additionally, the allowances granted to newly-repowered combustion units at two of Topaz's plants reflect only a single, partial year of operations, and therefore do not reflect representative operations. Topaz believes that the revisions to CSAPR currently proposed by EPA provide an opportunity to address the issues identified in these comments, and Topaz urges EPA to make the corrections described below with the proposed revisions to CSAPR. In the alternative, however, Topaz urges that EPA make these corrections on reconsideration of CSAPR as it was originally promulgated in final form, and Topaz also submits these corrections as a petition for reconsideration of CSAPR.[2]

A. Allowances Granted to Topaz's Barney M. Davis and Laredo Energy Centers Should be Adjusted to Account for Repowering Projects During the Relevant Years Under the CSAPR FIP's Emissions Allocation Method.

Topaz owns and operates three power plants in Texas with a combined generation capacity totaling 1,942 megawatts ("MW"). The Laredo Energy Center, which is located near Laredo, Texas, houses two gas-fired generating units with a combined capacity of 200 MW. The Barney M. Davis Energy Center and the Nueces Bay Energy Center are both located near Corpus Christi, Texas. The Barney M. Davis Energy Center houses three gas-fired generating units with 1,047 MW combined capacity, and the Nueces Bay Energy Center houses two gas-fired generating units with 695 MW in total capacity.

In recent years, Topaz has completed substantial capital improvements to increase efficiency and reduce air emissions through repowering projects at each of its three Texas plants. Each of these projects involved replacing less-efficient, higher-emitting oil-fired boilers with higher-efficiency, lower-emitting combined-cycle gas-fired turbines. Each project was completed as follows:

- **Laredo Energy Center:** The repowering project at the Laredo Energy Center began in 2007 and was completed in 2008. The existing Units 1, 2, and 3 were retired in 2008 and repowered (replaced) with new turbines named Units 4 and 5.

- **Barney M. Davis Energy Center:** The repowering project at the Barney M. Davis Energy Center began in 2008 and was completed in 2010. The existing Barney M. Davis Unit 2 was shut down in 2008 and repowered with two new combined-cycle turbines named Units 3 and 4. Although the two-for-one nature of the repowering projects necessitated the renaming of the combustion units, the new combustion turbine units continue to power Generator 2, the generator that existed before the

[2] Section 307(d)(7)(B) of the federal Clean Air Act ("CAA") provides for EPA reconsideration of a CAA rule upon objection by a petitioner. 42 U.S.C. § 7607(d)(7)(B). Reconsideration is appropriate when the objection raised by the petitioner was impracticable to raise during the public comment period or the grounds for the objection arise after the public comment period, if the objections are of central relevance to the outcome of the rule. *See id*. Here, reconsideration is appropriate because EPA did not originally propose to include Texas in CSAPR, and because EPA did not issue proposed annual allowance allocations for Texas sources. It was therefore not practicable for Topaz to comment on the allocations ultimately granted to its Texas units until after the final issuance of CSAPR.

repowering project. The Barney M. Davis Energy Center also houses Unit 1, a gas-fired unit that was not affected by the repowering project.

- **Nueces Bay Energy Center:** The repowering project at the Nueces Bay Energy Center was similar to the project completed at the Barney M. Davis Energy Center. The Nueces Bay project also began in 2008 and was completed in 2010. At Nueces Bay, the existing Unit 7 was shut down in 2002 and repowered with two new turbines named Units 8 and 9. The new combustion turbine units continue to power Generator 7, the generator that existed before the repowering project.

Each of the three repowering projects described above involved the replacement and modernization of existing combustion capacity. In the CSAPR preamble, EPA emphasized that CSAPR is intended to be "fuel neutral," and the rule is not intended to penalize operators that have already invested in pollution reduction methods before the development of CSAPR. EPA explained this position as follows:

> EPA believes that existing-unit allowance allocation under the Transport Rule should not generally advantage or disadvantage units based on the selection of fuels consumed or of pollution controls installed at a given unit in anticipation of either the Clean Air Interstate Rule or the Transport Rule, *i.e.*, fuel or control decisions taken from 2003 onward. *An approach that does not advantage or disadvantage units in this way avoids allocating in a way that would effectively penalize units that have already invested in cleaner fuels or other pollution reduction measures that will continue to deliver important emission reductions under this rulemaking.* The approach selected in the final rule generally does not penalize such units and is thus generally fuel-neutral and control neutral in its allocation determinations.

76 Fed. Reg. at 48,288 (emphasis added).

Despite this clearly-stated objective of CSAPR, the repowered units at the Laredo, Barney M. Davis, and Nueces Bay Energy Centers operated by Topaz have been granted emissions allocations under the CSAPR FIP based only on heat input and emissions data from after completion of the repowering projects, without regard to the units' past operating history. **Attachment 1** is a reproduction of the EPA allocation spreadsheet (as proposed for revision by EPA) containing the emissions and heat input data underlying each of the repowered Topaz units in Texas. As shown in the spreadsheet, Barney M. Davis Units 3 and 4 received allocations based only on heat input and emissions data from their year-2010 operations, as did Nueces Bay Units 8 and 9. Laredo Units 4 and 5 also received allocations based on heat input and emissions data only from operations after repowering, during years 2008, 2009, and 2010. The spreadsheet contains no heat input or emissions data for years before the repowering projects were completed.

The allowance allocation method for existing sources defined in the CSAPR FIP calls for unit allocations to be determined using heat input data from the years 2006-2010, and using

emissions data from the years 2003-2010. *See* 76 Fed. Reg. at 48,290. Here, for the Barney M. Davis and Laredo Energy Centers, there is an established record of heat input and emissions data for the repowered units during years before the repowering projects and within the range of years relevant to the CSAPR FIP allocation methodology.[3] This data is readily accessible at EPA's Clean Air Markets Division ("CAMD") database. **Attachment 2** is a spreadsheet containing emissions and heat rate data from 2003-2008, obtained from the CAMD database, for Barney M. Davis Unit 2 and Laredo Units 1, 2, and 3.

Topaz urges EPA to correct the allowance allocations to the repowered units at the Barney M. Davis and Laredo Energy Centers to account for operations during years both prior to and following the repowering projects. To summarize, the allowance allocations granted to the following units should be corrected to account for repowering during the period that is relevant under the CSAPR FIP:

Plant	**Pre-Repowering Units**	**Repowering Years**	**Post-Repowering Units**
Barney M. Davis Energy Center	Unit 2 (Until 2008)	2008-2010	Units 3 & 4 (Beginning with partial year 2010)
Laredo Energy Center	Units 1, 2, and 3 (Until 2008)	2008	Units 4 & 5 (Beginning with partial year 2008)

Topaz recognizes that the repowering projects were not one-for-one turbine replacements. At the Barney M. Davis Energy Center, one existing boiler was replaced with two new turbines, and at the Laredo Energy Center, three existing boilers were replaced with two new turbines. Although the projects did not involve one-for-one replacements, and the Barney M. Davis and Laredo Energy Centers resumed operations after repowering with differently-named units, the fact remains that the new units at these plants were the products of repowering projects that served to reduce emissions at existing units in a manner that CSAPR's allocation method is intended to consider. In this regard, the projects are similar to the repowering project described by the City of Tallahassee in comments on CSAPR. *See* U.S. EPA, Transport Rule Primary Response to Comments, Docket No. EPA-HQ-OAR-2009-0491 at 2,648-49 (June 2011) (hereinafter "CSAPR Response to Comments"). EPA responded that repowered units reporting as the same unit "would continue to receive the same allocation as prior to repowering." *Id*. at 2,649. Topaz does not believe that the allowance allocations under the CSAPR FIP should turn on whether the units affected by the project were given new unit names or retained the same unit names. Accordingly, Topaz requests that EPA correct the CSAPR allocation spreadsheet to assign past emissions and heat input data from Barney M. Davis Unit 2 to the current Barney M.

[3] As noted above, the Nueces Bay Unit 7 was shut down in 2002 and the repowering project was completed in 2010. Because Unit 7 (the repowered unit), was shut down in 2002, there is not pre-repowering heat input and emissions data available for this unit from the years that are relevant to the CSAPR allocation method.

Davis Unit 3, to assign past emissions from Laredo Units 1 and 2 to the current Laredo Unit 4, and to assign past emissions from Laredo Unit 3 to the current Laredo Unit 5.

B. EPA Should Correct Emissions and Heat Rate Data and Resulting Allocations for the Barney M. Davis and Nueces Bay Energy Centers to Account for Partial-Year 2010 Operation.

For the reasons described above, Topaz believes that emissions allocations to the repowered Units listed above should be corrected to reflect the operation of those Units both before and after repowering. Such an allocation would be most consistent with the allocation methodology in the CSAPR FIP and its underlying principles. In addition, Topaz notes that the year-2010 heat input and emissions data for the repowered units at Barney M. Davis and Nueces Bay—and the resultant allowance allocations—must also be corrected to reflect representative annual operations.

The repowering projects at the Barney M. Davis Energy Center and the Nueces Bay Energy Center were both completed during 2010, and the newly-repowered units did not operate at representative capacity levels for the full calendar year. Although EPA's records show that the newly-repowered units first produced electricity before the January 1, 2010 date that separates "existing units" from "new units" under the CSAPR FIP, the repowered units at both plants did not become commercially available until March 2010, and the repowered units at both plants saw only a partial year of operation at reduced capacity levels during 2010.

- At Barney M. Davis Units 3 and 4, the units' continuous emission monitoring systems ("CEMS") were certified in February 2010, and these repowered units did not become commercially available to the Electric Reliability Council of Texas ("ERCOT") grid until March 2010. During 2010, the two repowered units at the Barney M. Davis Energy Center were utilized at only 37.9% capacity as those units went though startup operations.

- At Nueces Bay Units 8 and 9, the units' CEMS were certified in February 2010, and these repowered units did not become commercially available to the ERCOT grid until March 2010. During 2010, the two repowered units at the Nueces Bay plant were utilized at only 42.8% capacity.

In describing the allocation method, EPA emphasized that the CSAPR FIP's allocation method is intended to ensure representativeness. In the CSAPR preamble, EPA noted the allocation method for existing units begins with a review of heat input values spanning a "baseline period" from 2006 to 2010, because "[t]he allocation method uses a five-year baseline to approximate a unit's normal operating conditions over time." 76 Fed. Reg. at 48,289-90. Similarly, the existing unit allocation method looks to the maximum annual SO_2 and NO_x emissions over an eight-year baseline period "in order to capture the unit-level emissions before and after the promulgation of CAIR." *Id.* at 48,290. In responding to comments on the allocation method, EPA explained that "the method and time period used to determine historic heat input rates . . . is reasonable and allows for a representative sample of past operating history to be considered for purposes of allowance allocation to existing units." CSAPR Response to Comments at 2,485.

Here, the SO_2 and NO_x allowances granted to the repowered units at Barney M. Davis (Units 3 and 4) and Nueces Bay (Units 8 and 9) are far from representative. The allocations granted to these units correspond to their *actual emissions during 2010 alone*. *See* Attachment 1. As discussed above, emissions from 2010 were not representative of the normal operation of these units due to the fact that the units were only commercially available for part of the year, and these units operated at extremely low, unrepresentative, capacity factors during 2010. As a result, the allowances granted to these units, which are based on a single, partial year of operation at less-than-full capacity, are not representative of normal operations and are not consistent with the principles that govern the allocation method in the CSAPR FIP. For this reason, Topaz requests that the annual NO_x and SO_2 allocations granted to the repowered units at Barney M. Davis and Nueces Bay be corrected to account for representative operations.

The CSAPR Response to Comments document indicates that EPA has already taken similar steps to correct the allocations for similarly-situated units. EPA explained that "[i]n response to comments on the January 7, 2011 NODA, EPA updated its underlying data tables for allocations where appropriate. Specifically, it made updates to its unit level heat input and emission values where submitted by commenter [sic] with a reasonable explanation on why the previous values were incorrect." CSAPR Response to Comments at 2,838. Referencing a situation nearly identical to the one presented here, EPA stated that

> Another case of data correction are instances where sources suggested the data for a particular year at their source was not representative because the source began operation that year and therefore the annual data just reflect a partial year's worth of operation. In these instances, EPA made adjustments to its historic emissions and heat input values used to determine allowance allocations.

Id.

Topaz believes that the operations of the newly-repowered units at the Barney M. Davis Energy Center during the third quarter of 2010 reflect representative operations of those units. Likewise, Topaz believes that the operations of the newly-repowered units at the Nueces Bay Energy Center during the fourth quarter of 2010 reflect the representative operations of those units. In both cases, the newly-repowered units operated in a relatively stable, uninterrupted manner following startup and shakedown of the units, and the units were dispatched at more representative levels during these portions of 2010. Topaz urges EPA to correct the heat input and emissions data that underlies the allocations granted to these units to reflect a full year of operations under these conditions, as described in the tables below.

Heat Input and Actual Emissions From Representative Quarter During 2010[4]

Unit	Representative Quarter	Heat Input in Representative Quarter (mmBTU)	SO_2 Emissions in Representative Quarter (tons)	NO_x Emissions in Representative Quarter (tons)
Barney M. Davis Unit 3	3Q 2010	2,731,504	0.8	18.7
Barney M. Davis Unit 4	3Q 2010	2,119,445	0.6	13.5
Nueces Bay Unit 8	4Q 2010	2,887,805	0.9	14.9
Nueces Bay Unit 9	4Q 2010	2,878,474	0.9	16.0

Topaz requests that the emissions allocations for Barney M. Davis Units 3 and 4 and Nueces Bay Units 8 and 9 be adjusted to reflect a full year's operation at representative heat input and emissions numbers in the above-listed table. For purposes of determining corrected allocations levels to be granted to Barney M. Davis Units 3 and 4 and Nueces Bay Units 8 and 9, each of the heat input and emissions values in the table above should be multiplied by four to determine a representative annual value, with the allowance allocations for these four units to be recalculated following this adjustment.

[4] Source: EPA Clean Air Markets Division database

C. Conclusion

For the reasons stated above, Topaz urges EPA to correct the allowance allocations granted to generating units at Topaz's Barney Davis and Laredo plants to account for repowering projects completed at those plants prior to CSAPR's issuance. Additionally, Topaz urges EPA to correct allowance allocations granted to generating units at the Barney Davis and Nueces Bay plants to account for the single, partial year of operations of those units during the relevant time period. Topaz respectfully requests that EPA make these corrections with the proposed revisions to CSAPR, or on reconsideration of CSAPR.

Dated: November 22, 2011

On Behalf of Topaz Power Group, LLC

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ATTACHMENT 1

CSAPR Allocation Spreadsheet for
Topaz Power Group LLC's Texas Existing Units

					Step 1					Steps 2 & 3	Step 4
Plant Name	**State**	**ORIS ID**	**Boiler ID**	**CAMD Unit ID**	**2006 Annual Heat Input (mmBtu)**	**2007 Annual Heat Input (mmBtu)**	**2008 Annual Heat Input (mmBtu)**	**2009 Annual Heat Input (mmBtu)**	**2010 Annual Heat Input (mmBtu)**	**Unit Level Average of 3 Highest Non-Zero Annual Heat Inputs from 2006 to 2010 (mmBtu)**	**State Level Summation of Unit Level Three Year Average Annual Heat Input (mmBtu)**
Calculation										**Average of three highest non-zero values in columns F - J**	**Sum column K values to get State level totals**
Barney M. Davis	Texas	4939	1	2658	3,861,536	1,815,633	4,749,542	3,199,412	660,763	3,936,830	3,511,861,009
Barney M. Davis	Texas	4939	3	90244					7,642,927	7,642,927	3,511,861,009
Barney M. Davis	Texas	4939	4	90245					6,876,385	6,876,385	3,511,861,009
Laredo	Texas	3439	4	90196			951,527	1,892,846	615,600	1,153,325	3,511,861,009
Laredo	Texas	3439	5	90197			577,365	1,761,942	546,497	961,935	3,511,861,009
Nueces Bay	Texas	3441	8	90242					8,108,629	8,108,629	3,511,861,009
Nueces Bay	Texas	3441	9	90243					8,083,556	8,083,556	3,511,861,009

				Step 5	Step 6							
Plant Name	**State**	**ORIS ID**	**Boiler ID**	**Unit 's Percentage Share of State's Annual Heat Input**	**Annual SO_2 2012 State Budget for Existing Units (tons)**	**Annual SO_2 2014 State Budget for Existing Units (tons)**	**Annual NO_X 2012 State Budget for Existing Units (tons)**	**Annual NO_X 2014 State Budget for Existing Units (tons)**	**Initial Heat Input Based 2012 SO_2 Allocation (tons)**	**Initial Heat Input Based 2014 SO_2 Allocation (tons)**	**Initial Heat Input Based 2012 Annual NO_X Allocation (tons)**	**Initial Heat Input Based 2014 Annual NO_X Allocation (tons)**
Calculation				**Column K divided by column L**					**Column M x column N**	**Column M x column O**	**Column M x column P**	**Column M x column Q**
Barney M. Davis	Texas	4939	1	0.001121	298,320	298,320	129,571	129,571	334	334	145	145
Barney M. Davis	Texas	4939	3	0.002176	298,320	298,320	129,571	129,571	649	649	282	282
Barney M. Davis	Texas	4939	4	0.001958	298,320	298,320	129,571	129,571	584	584	254	254
Laredo	Texas	3439	4	0.000328	298,320	298,320	129,571	129,571	98	98	43	43
Laredo	Texas	3439	5	0.000274	298,320	298,320	129,571	129,571	82	82	35	35
Nueces Bay	Texas	3441	8	0.002309	298,320	298,320	129,571	129,571	689	689	299	299
Nueces Bay	Texas	3441	9	0.002302	298,320	298,320	129,571	129,571	687	687	298	298

				Step 7								
Plant Name	**State**	**ORIS ID**	**Boiler ID**	**2003 Annual SO_2 Emissions (tons)**	**2004 Annual SO_2 Emissions (tons)**	**2005 Annual SO_2 Emissions (tons)**	**2006 Annual SO_2 Emissions (tons)**	**2007 Annual SO_2 Emissions (tons)**	**2008 Annual SO_2 Emissions (tons)**	**2009 Annual SO_2 Emissions (tons)**	**2010 Annual SO_2 Emissions (tons)**	**Annual SO_2 Maximum Historic Baseline (tons)**
Calculation												**Highest value of columns V - AC**
Barney M. Davis	Texas	4939	1	248	0	1	1	1	1	1	0	248
Barney M. Davis	Texas	4939	3								2	2
Barney M. Davis	Texas	4939	4								2	2
Laredo	Texas	3439	4						0	1	0	1
Laredo	Texas	3439	5						0	1	0	1
Nueces Bay	Texas	3441	8								2	2
Nueces Bay	Texas	3441	9								2	2

				Step 8								
Plant Name	**State**	**ORIS ID**	**Boiler ID**	**2012 Annual SO_2 Consent Decree Cap (if applicable) (tons)**	**2013 Annual SO_2 Consent Decree Cap (if applicable) (tons)**	**2014 Annual SO_2 Consent Decree Cap (if applicable) (tons)**	**2015 Annual SO_2 Consent Decree Cap (if applicable) (tons)**	**2016 Annual SO_2 Consent Decree Cap (if applicable) (tons)**	**2017 Annual SO_2 Consent Decree Cap (if applicable) (tons)**	**2018 Annual SO_2 Consent Decree Cap (if applicable) (tons)**	**2019 Annual SO_2 Consent Decree Cap (if applicable) (tons)**	**2003 Annual NO_X Emissions (tons)**
Calculation												
Barney M. Davis	Texas	4939	1									814
Barney M. Davis	Texas	4939	3									
Barney M. Davis	Texas	4939	4									
Laredo	Texas	3439	4									
Laredo	Texas	3439	5									
Nueces Bay	Texas	3441	8									
Nueces Bay	Texas	3441	9									

				Step 7								
Plant Name	**State**	**ORIS ID**	**Boiler ID**	**2004 Annual NO_X Emissions (tons)**	**2005 Annual NO_X Emissions (tons)**	**2006 Annual NO_X Emissions (tons)**	**2007 Annual NO_X Emissions (tons)**	**2008 Annual NO_X Emissions (tons)**	**2009 Annual NO_X Emissions (tons)**	**2010 Annual NO_X Emissions (tons)**	**Annual NO_X Maximum Historic Baseline (tons)**	**2012 Annual NO_X Consent Decree Cap (if applicable) (tons)**
Calculation											**Highest value of columns AE - AL**	
Barney M. Davis	Texas	4939	1	115	343	320	198	421	332	48	814	
Barney M. Davis	Texas	4939	3							54	54	
Barney M. Davis	Texas	4939	4							44	44	
Laredo	Texas	3439	4					5	11	4	11	
Laredo	Texas	3439	5					4	11	3	11	
Nueces Bay	Texas	3441	8							53	53	
Nueces Bay	Texas	3441	9							52	52	

				Step 8							
Plant Name	**State**	**ORIS ID**	**Boiler ID**	**2013 Annual NO_X Consent Decree Cap (if applicable) (tons)**	**2014 Annual NO_X Consent Decree Cap (if applicable) (tons)**	**2015 Annual NO_X Consent Decree Cap (if applicable) (tons)**	**2016 Annual NO_X Consent Decree Cap (if applicable) (tons)**	**2017 Annual NO_X Consent Decree Cap (if applicable) (tons)**	**2018 Annual NO_X Consent Decree Cap (if applicable) (tons)**	**2019 Annual NO_X Consent Decree Cap (if applicable) (tons)**	**Final Transport Rule Unit Level SO_2 Allocation 2012 (tons)**
Calculation											**(Lesser of columns AD, AE, and R) + reapportionment if R < (AD and AE)**
Barney M. Davis	Texas	4939	1								**248**
Barney M. Davis	Texas	4939	3								**2**
Barney M. Davis	Texas	4939	4								**2**
Laredo	Texas	3439	4								**1**
Laredo	Texas	3439	5								**1**
Nueces Bay	Texas	3441	8								**2**
Nueces Bay	Texas	3441	9								**2**

				Steps 9 & 10					
Plant Name	**State**	**ORIS ID**	**Boiler ID**	**Final Transport Rule Unit Level SO_2 Allocation 2013 (tons)**	**Final Transport Rule Unit Level SO_2 Allocation 2014 (tons)**	**Final Transport Rule Unit Level SO_2 Allocation 2015 (tons)**	**Final Transport Rule Unit Level SO_2 Allocation 2016 (tons)**	**Final Transport Rule Unit Level SO_2 Allocation 2017 (tons)**	**Final Transport Rule Unit Level SO_2 Allocation 2018 (tons)**
Calculation				**(Lesser of columns AD, AF, and R) + reapportionment if R < (AD and AF)**	**(Lesser of columns AD, AG, and S) + reapportionment if S < (AD and AG)**	**(Lesser of columns AD, AH, and S) + reapportionment if S < (AD and AH)**	**(Lesser of columns AD, AI, and S) + reapportionment if S < (AD and AI)**	**(Lesser of columns AD, AJ, and S) + reapportionment if S < (AD and AJ)**	**(Lesser of columns AD, AK, and S) + reapportionment if S < (AD and AK)**
Barney M. Davis	Texas	4939	1	**248**	**248**	**248**	**248**	**248**	**248**
Barney M. Davis	Texas	4939	3	**2**	**2**	**2**	**2**	**2**	**2**
Barney M. Davis	Texas	4939	4	**2**	**2**	**2**	**2**	**2**	**2**
Laredo	Texas	3439	4	**1**	**1**	**1**	**1**	**1**	**1**
Laredo	Texas	3439	5	**1**	**1**	**1**	**1**	**1**	**1**
Nueces Bay	Texas	3441	8	**2**	**2**	**2**	**2**	**2**	**2**
Nueces Bay	Texas	3441	9	**2**	**2**	**2**	**2**	**2**	**2**

Plant Name	State	ORIS ID	Boiler ID	Final Transport Rule Unit Level SO_2 Allocation 2019 (tons)	Final Transport Rule Unit Level NO_X Annual Allocation 2012 (tons)	Final Transport Rule Unit Level NO_X Annual Allocation 2013 (tons)	Final Transport Rule Unit Level NO_X Annual Allocation 2014 (tons)	Final Transport Rule Unit Level NO_X Annual Allocation 2015 (tons)	Final Transport Rule Unit Level NO_X Annual Allocation 2016 (tons)
Calculation				**(Lesser of columns AD, AL, and S) + reapportionment if S < (AD and AL)**	**(Lesser of columns AU, AV, and T) + reapportionment if T < (AU and AV)**	**(Lesser of columns AU, AW, and T) + reapportionment if T < (AU and AW)**	**(Lesser of columns AU, AX, and U) + reapportionment if U <(AU and AX)**	**(Lesser of columns AU, AY, and U) + reapportionment if U <(AU and AY)**	**(Lesser of columns AU, AZ, and U) + reapportionment if U <(AU and AZ)**
Barney M. Davis	Texas	4939	1	**248**	**203**	**203**	**203**	**203**	**203**
Barney M. Davis	Texas	4939	3	**2**	**54**	**54**	**54**	**54**	**54**
Barney M. Davis	Texas	4939	4	**2**	**44**	**44**	**44**	**44**	**44**
Laredo	Texas	3439	4	**1**	**11**	**11**	**11**	**11**	**11**
Laredo	Texas	3439	5	**1**	**11**	**11**	**11**	**11**	**11**
Nueces Bay	Texas	3441	8	**2**	**53**	**53**	**53**	**53**	**53**
Nueces Bay	Texas	3441	9	**2**	**52**	**52**	**52**	**52**	**52**

							Step 1				
Plant Name	**State**	**ORIS ID**	**Boiler ID**	**Final Transport Rule Unit Level NO_X Annual Allocation 2017 (tons)**	**Final Transport Rule Unit Level NO_X Annual Allocation 2018 (tons)**	**Final Transport Rule Unit Level NO_X Annual Allocation 2019 (tons)**	**2006 Ozone Season Heat Input (mmBtu)**	**2007 Ozone Season Heat Input (mmBtu)**	**2008 Ozone Season Heat Input (mmBtu)**	**2009 Ozone Season Heat Input (mmBtu)**	**2010 Ozone Season Heat Input (mmBtu)**
Calculation				**(Lesser of columns AU, BA, and U) + reapportionment if U <(AU and BA)**	**(Lesser of columns AU, BB, and U) + reapportionment if U <(AU and BB)**	**(Lesser of columns AU, BC, and U) + reapportionment if U <(AU and BC)**					
Barney M. Davis	Texas	4939	1	**203**	**203**	**203**	3,126,494	1,554,214	3,308,707	2,865,913	651,813
Barney M. Davis	Texas	4939	3	**54**	**54**	**54**					4,355,946
Barney M. Davis	Texas	4939	4	**44**	**44**	**44**					3,599,141
Laredo	Texas	3439	4	**11**	**11**	**11**			545,972	1,119,466	317,321
Laredo	Texas	3439	5	**11**	**11**	**11**			257,805	1,103,391	260,769
Nueces Bay	Texas	3441	8	**53**	**53**	**53**					3,647,018
Nueces Bay	Texas	3441	9	**52**	**52**	**52**					3,689,156

				Steps 2 & 3	Step 4	Step 5	Step 6				
Plant Name	**State**	**ORIS ID**	**Boiler ID**	**Unit Level Average of 3 Highest Non-Zero Ozone Season Heat Inputs from 2006 to 2010 (mmBtu)**	**State Level Summation of Unit Level Three Year Average Ozone Season Heat Input (mmBtu)**	**Unit 's Percentage Share of State's Ozone Season Heat Input**	**Ozone Season NO_X 2012 State Budget for Existing Units (tons)**	**Ozone Season NO_X 2014 State Budget for Existing Units (tons)**	**Initial Heat Input Based 2012 Ozone Season NO_X Allocation (tons)**	**Initial Heat Input Based 2014 Ozone Season NO_X Allocation (tons)**	**2003 Ozone Season NO_X Emissions (tons)**
Calculation				**Average of three highest non-zero values in columns BT - BX**	**Sum column BY values to get State level totals**	**Column BY divided by column BZ**			**Column CA x column CB**	**Column CA x column CC**	
Barney M. Davis	Texas	4939	1	3,100,371	1,726,001,946	0.001796	61,841	61,841	111	111	450
Barney M. Davis	Texas	4939	3	4,355,946	1,726,001,946	0.002524	61,841	61,841	156	156	
Barney M. Davis	Texas	4939	4	3,599,141	1,726,001,946	0.002085	61,841	61,841	129	129	
Laredo	Texas	3439	4	660,920	1,726,001,946	0.000383	61,841	61,841	24	24	
Laredo	Texas	3439	5	540,655	1,726,001,946	0.000313	61,841	61,841	19	19	
Nueces Bay	Texas	3441	8	3,647,018	1,726,001,946	0.002113	61,841	61,841	131	131	
Nueces Bay	Texas	3441	9	3,689,156	1,726,001,946	0.002137	61,841	61,841	132	132	

				Step 7								
Plant Name	**State**	**ORIS ID**	**Boiler ID**	**2004 Ozone Season NO_X Emissions (tons)**	**2005 Ozone Season NO_X Emissions (tons)**	**2006 Ozone Season NO_X Emissions (tons)**	**2007 Ozone Season NO_X Emissions (tons)**	**2008 Ozone Season NO_X Emissions (tons)**	**2009 Ozone Season NO_X Emissions (tons)**	**2010 Ozone Season NO_X Emissions (tons)**	**Ozone Season NO_X Maximum Historic Baseline (tons)**	**2012 Ozone Season NOX Consent Decree Cap (if applicable) (tons)**
Calculation											**Highest value of columns CF - CM**	
Barney M. Davis	Texas	4939	1	27	294	272	170	303	303	48	450	
Barney M. Davis	Texas	4939	3							30	30	
Barney M. Davis	Texas	4939	4							23	23	
Laredo	Texas	3439	4					3	7	2	7	
Laredo	Texas	3439	5					2	7	1	7	
Nueces Bay	Texas	3441	8							24	24	
Nueces Bay	Texas	3441	9							23	23	

				Step 8							
Plant Name	**State**	**ORIS ID**	**Boiler ID**	**2013 Ozone Season NOX Consent Decree Cap (if applicable) (tons)**	**2014 Ozone Season NOX Consent Decree Cap (if applicable) (tons)**	**2015 Ozone Season NOX Consent Decree Cap (if applicable) (tons)**	**2016 Ozone Season NOX Consent Decree Cap (if applicable) (tons)**	**2017 Ozone Season NOX Consent Decree Cap (if applicable) (tons)**	**2018 Ozone Season NOX Consent Decree Cap (if applicable) (tons)**	**2019 Ozone Season NOX Consent Decree Cap (if applicable) (tons)**	**Final Transport Rule Unit Level NO_X Ozone Season Allocation 2012 (tons)**
Calculation											**(Lesser of columns CN, CO, and CD + reapportionment if CD < (CN and CO)**
Barney M. Davis	Texas	4939	1								**161**
Barney M. Davis	Texas	4939	3								**30**
Barney M. Davis	Texas	4939	4								**23**
Laredo	Texas	3439	4								**7**
Laredo	Texas	3439	5								**7**
Nueces Bay	Texas	3441	8								**24**
Nueces Bay	Texas	3441	9								**23**

				Steps 9 & 10					
Plant Name	**State**	**ORIS ID**	**Boiler ID**	**Final Transport Rule Unit Level NO_X Ozone Season Allocation 2013(tons)**	**Final Transport Rule Unit Level NO_X Ozone Season Allocation 2014 (tons)**	**Final Transport Rule Unit Level NO_X Ozone Season Allocation 2015 (tons)**	**Final Transport Rule Unit Level NO_X Ozone Season Allocation 2016 (tons)**	**Final Transport Rule Unit Level NO_X Ozone Season Allocation 2017 (tons)**	**Final Transport Rule Unit Level NO_X Ozone Season Allocation 2018 (tons)**
Calculation				**(Lesser of columns CN, CP, and CD + reapportionment if CD < (CN and CP)**	**(Lesser of columns CN, CQ, and CE + reapportionment if CE < (CN and CQ)**	**(Lesser of columns CN, CR, and CE + reapportionment if CE < (CN and CR)**	**(Lesser of columns CN, CS, and CE + reapportionment if CE < (CN and CS)**	**(Lesser of columns CN, CT, and CE + reapportionment if CE < (CN and CT)**	**(Lesser of columns CN, CU, and CE + reapportionment if CE < (CN and CU)**
Barney M. Davis	Texas	4939	1	**161**	**161**	**161**	**161**	**161**	**161**
Barney M. Davis	Texas	4939	3	**30**	**30**	**30**	**30**	**30**	**30**
Barney M. Davis	Texas	4939	4	**23**	**23**	**23**	**23**	**23**	**23**
Laredo	Texas	3439	4	**7**	**7**	**7**	**7**	**7**	**7**
Laredo	Texas	3439	5	**7**	**7**	**7**	**7**	**7**	**7**
Nueces Bay	Texas	3441	8	**24**	**24**	**24**	**24**	**24**	**24**
Nueces Bay	Texas	3441	9	**23**	**23**	**23**	**23**	**23**	**23**

					Data Flags					
Plant Name	**State**	**ORIS ID**	**Boiler ID**	**Final Transport Rule Unit Level NO_X Ozone Season Allocation 2019 (tons)**	**Transport Rule Annual Program?**	**Group 1?**	**Group 2?**	**Transport Rule Ozone Season Program?**	**EIA Data Substitution**	**Comment Data Substitution**
Calculation				**(Lesser of columns CN, CV, and CE + reapportionment if CE < (CN and CV)**						
Barney M. Davis	Texas	4939	1	**161**	Y		Y	Y		
Barney M. Davis	Texas	4939	3	**30**	Y		Y	Y		
Barney M. Davis	Texas	4939	4	**23**	Y		Y	Y		
Laredo	Texas	3439	4	**7**	Y		Y	Y		
Laredo	Texas	3439	5	**7**	Y		Y	Y		
Nueces Bay	Texas	3441	8	**24**	Y		Y	Y		
Nueces Bay	Texas	3441	9	**23**	Y		Y	Y		

ATTACHMENT 2

Heat Input and Emissions Data From
Retired Units at Topaz Power Group LLC's
Barney M. Davis Energy Center and
Laredo Energy Center

STATE	FACILITY_NAME	ORISPL_CODE	UNITID	OP_YEAR	ASSOC_STACKS	OP_MONTH	PRG_CODE_INFO	SUM_OP_TIME	SO2_MASS	NOX_RATE	NOX_MASS	CO2_MASS	HEAT_INPUT
TX	Barney M. Davis	4939	2	2003		1	ARP	0					
TX	Barney M. Davis	4939	2	2003		2	ARP	73	25.2	0.17	14.5	9,597.2	125,577
TX	Barney M. Davis	4939	2	2003		3	ARP	60	31.6	0.18	19.4	14,971.2	185,356
TX	Barney M. Davis	4939	2	2003		4	ARP	46	0.0	0.08	2.0	1,993.9	33,550
TX	Barney M. Davis	4939	2	2003		5	ARP	419	3.3	0.11	40.8	34,030.8	567,052
TX	Barney M. Davis	4939	2	2003		6	ARP	311	0.1	0.09	27.8	24,861.6	418,339
TX	Barney M. Davis	4939	2	2003		7	ARP	263	0.1	0.09	19.1	18,500.9	311,318
TX	Barney M. Davis	4939	2	2003		8	ARP	149	0.1	0.10	13.4	11,835.8	199,172
TX	Barney M. Davis	4939	2	2003		9	ARP	8	0.0	0.03	0.2	570.0	9,590
TX	Barney M. Davis	4939	2	2003		10	ARP	65	0.0	0.10	4.3	3,645.8	61,348
TX	Barney M. Davis	4939	2	2003		11	ARP	155	0.0	0.09	8.5	8,834.0	148,650
TX	Barney M. Davis	4939	2	2003		12	ARP	59	1.6	0.09	2.7	2,212.6	34,766
TX	Barney M. Davis	4939	2	2004		1	ARP	614	0.2	0.12	36.3	35,801.7	602,408
TX	Barney M. Davis	4939	2	2004		2	ARP	696	0.2	0.10	36.2	42,540.2	715,834
TX	Barney M. Davis	4939	2	2004		3	ARP	576	0.2	0.08	26.0	35,950.1	604,935
TX	Barney M. Davis	4939	2	2004		4	ARP	317	0.1	0.11	24.1	23,838.4	401,122
TX	Barney M. Davis	4939	2	2004		5	ARP	744	0.5	0.16	135.1	97,437.8	1,639,541
TX	Barney M. Davis	4939	2	2004		6	ARP	720	0.4	0.13	100.8	82,131.7	1,381,996
TX	Barney M. Davis	4939	2	2004		7	ARP	744	0.5	0.15	123.5	91,396.3	1,537,934
TX	Barney M. Davis	4939	2	2004		8	ARP	744	0.5	0.14	117.9	93,177.3	1,567,898
TX	Barney M. Davis	4939	2	2004		9	ARP	720	0.4	0.13	92.4	74,103.4	1,246,939
TX	Barney M. Davis	4939	2	2004		10	ARP	424	0.2	0.13	45.4	38,082.9	640,818
TX	Barney M. Davis	4939	2	2004		11	ARP	720	0.2	0.11	50.8	46,370.8	780,300
TX	Barney M. Davis	4939	2	2004		12	ARP	732	0.2	0.12	49.2	47,713.4	802,859
TX	Barney M. Davis	4939	2	2005		1	ARP	709	0.2	0.11	48.5	47,176.0	793,824
TX	Barney M. Davis	4939	2	2005		2	ARP	672	0.2	0.11	39.7	40,505.7	681,605

STATE	FACILITY_NAME	ORISPL_CODE	UNITID	OP_YEAR	ASSOC_STACKS	OP_MONTH	PRG_CODE_INFO	SUM_OP_TIME	SO2_MASS	NOX_RATE	NOX_MASS	CO2_MASS	HEAT_INPUT
TX	Barney M. Davis	4939	2	2005		3	ARP	744	0.2	0.11	41.1	42,887.1	721,655
TX	Barney M. Davis	4939	2	2005		4	ARP	720	0.2	0.10	41.0	44,015.7	740,645
TX	Barney M. Davis	4939	2	2005		5	ARP	744	0.3	0.13	81.4	61,691.7	1,038,062
TX	Barney M. Davis	4939	2	2005		6	ARP	529	0.2	0.11	37.5	35,950.2	604,951
TX	Barney M. Davis	4939	2	2005		7	ARP	548	0.2	0.11	45.2	42,713.0	718,768
TX	Barney M. Davis	4939	2	2005		8	ARP	354	0.1	0.10	16.1	18,160.8	305,579
TX	Barney M. Davis	4939	2	2005		9	ARP	391	0.1	0.10	27.7	27,484.9	462,476
TX	Barney M. Davis	4939	2	2005		10	ARP	169	0.1	0.09	10.5	11,251.8	189,330
TX	Barney M. Davis	4939	2	2005		11	ARP	0					
TX	Barney M. Davis	4939	2	2005		12	ARP	0					
TX	Barney M. Davis	4939	2	2006		1	ARP	0					
TX	Barney M. Davis	4939	2	2006		2	ARP	0					
TX	Barney M. Davis	4939	2	2006		3	ARP	0					
TX	Barney M. Davis	4939	2	2006		4	ARP	0					
TX	Barney M. Davis	4939	2	2006		5	ARP	0					
TX	Barney M. Davis	4939	2	2006		6	ARP	139.75	0.043	0.0713	7.937	8504.075	143086.55
TX	Barney M. Davis	4939	2	2006		7	ARP	410.5	0.236	0.1915	88.102	46729.275	786310.625
TX	Barney M. Davis	4939	2	2006		8	ARP	573	0.342	0.1769	115.001	67724.875	1139597.325
TX	Barney M. Davis	4939	2	2006		9	ARP	281.5	0.14	0.1663	45.081	27769.325	467272.825
TX	Barney M. Davis	4939	2	2006		10	ARP	358.5	0.129	0.0951	24.371	25538.075	429727.875
TX	Barney M. Davis	4939	2	2006		11	ARP	0					
TX	Barney M. Davis	4939	2	2006		12	ARP	0					
TX	Barney M. Davis	4939	2	2007		1	ARP	0					
TX	Barney M. Davis	4939	2	2007		2	ARP	0					
TX	Barney M. Davis	4939	2	2007		3	ARP	0					
TX	Barney M. Davis	4939	2	2007		4	ARP	34.5	0.003	0.1467	0.779	656.125	11039.9
TX	Barney M. Davis	4939	2	2007		5	ARP	33.75	0.011	0.0706	1.823	2244.525	37771.775
TX	Barney M. Davis	4939	2	2007		6	ARP	25.5	0.006	0.0475	0.755	1219.75	20528.7
TX	Barney M. Davis	4939	2	2007		7	ARP	108.25	0.034	0.0759	5.073	6660.225	112074.725
TX	Barney M. Davis	4939	2	2007		8	ARP	370.25	0.177	0.0998	38.59	35106.525	590753.575
TX	Barney M. Davis	4939	2	2007		9	ARP	307	0.114	0.0951	24.682	22614.925	380541.875
TX	Barney M. Davis	4939	2	2007		10	ARP	176.25	0.056	0.0834	11.085	11088.825	186587.475
TX	Barney M. Davis	4939	2	2007		11	ARP	4	0	0.0004	0	1.275	23.6
TX	Barney M. Davis	4939	2	2007		12	ARP	0					
TX	Barney M. Davis	4939	2	2008		1	ARP, CAIRNOX	0					
TX	Barney M. Davis	4939	2	2008		2	ARP, CAIRNOX	0					
TX	Barney M. Davis	4939	2	2008		3	ARP, CAIRNOX	29.92	0.008	0.065	1.445	1671.103	28117.13
TX	Barney M. Davis	4939	2	2008		4	ARP, CAIRNOX	192.89	0.052	0.0953	10.36	10364.595	174391.226
TX	Barney M. Davis	4939	2	2008		5	ARP, CAIRNOX	608.31	0.234	0.1096	52.694	46354.515	780016.593
TX	Barney M. Davis	4939	2	2008		6	ARP, CAIRNOX	701.52	0.286	0.1053	59.899	56703.304	954161.02
TX	Barney M. Davis	4939	2	2008		7	ARP, CAIRNOX	358.09	0.139	0.1159	31.394	27511.364	462928.874
TX	Barney M. Davis	4939	2	2008		8	ARP, CAIRNOX	423.06	0.18	0.2709	86.828	35679.125	600377.685

STATE	FACILITY_NAME	ORISPL_CODE	UNITID	OP_YEAR	ASSOC_STACKS	OP_MONTH	PRG_CODE_INFO	SUM_OP_TIME	SO2_MASS	NOX_RATE	NOX_MASS	CO2_MASS	HEAT_INPUT
TX	Barney M. Davis	4939	2	2008		9	ARP, CAIRNOX	364.9	0.126	0.2346	51.798	24917.225	419281.192
TX	Barney M. Davis	4939	2	2008		10	ARP, CAIRNOX	0					
TX	Barney M. Davis	4939	2	2008		11	ARP, CAIRNOX	0					
TX	Barney M. Davis	4939	2	2008		12	ARP, CAIRNOX	0					
TX	Laredo	3439	1	2003		1	ARP	28	0.0	0.25	0.9	356.3	5,997
TX	Laredo	3439	1	2003		2	ARP	44	0.0	0.28	2.1	742.5	12,490
TX	Laredo	3439	1	2003		3	ARP	203	0.0	0.26	6.8	2,709.6	45,590
TX	Laredo	3439	1	2003		4	ARP	0					
TX	Laredo	3439	1	2003		5	ARP	490	0.0	0.24	15.7	6,932.7	116,665
TX	Laredo	3439	1	2003		6	ARP	619	0.1	0.25	23.6	10,347.4	174,120
TX	Laredo	3439	1	2003		7	ARP	644	0.1	0.25	26.7	11,679.5	196,532
TX	Laredo	3439	1	2003		8	ARP	698	0.1	0.27	30.0	12,536.4	210,956
TX	Laredo	3439	1	2003		9	ARP	545	0.0	0.24	20.5	9,436.2	158,775
TX	Laredo	3439	1	2003		10	ARP	154	0.0	0.20	4.2	2,091.7	35,201
TX	Laredo	3439	1	2003		11	ARP	0					
TX	Laredo	3439	1	2003		12	ARP	146	0.0	0.25	4.2	1,881.3	31,660
TX	Laredo	3439	1	2004		1	ARP	204	0.0	0.26	9.4	3,575.0	60,180
TX	Laredo	3439	1	2004		2	ARP	26	0.0	0.21	0.8	339.1	5,712
TX	Laredo	3439	1	2004		3	ARP	129	0.0	0.22	4.3	1,971.3	33,149
TX	Laredo	3439	1	2004		4	ARP	424	0.0	0.24	16.3	7,507.0	126,275
TX	Laredo	3439	1	2004		5	ARP	133	0.0	0.16	3.5	1,852.2	31,136
TX	Laredo	3439	1	2004		6	ARP	427	0.0	0.28	18.9	7,296.8	122,660
TX	Laredo	3439	1	2004		7	ARP	714	0.1	0.69	76.7	13,283.8	223,887
TX	Laredo	3439	1	2004		8	ARP	744	0.1	0.69	78.4	13,599.4	228,991
TX	Laredo	3439	1	2004		9	ARP	555	0.0	0.61	46.1	8,713.5	146,741
TX	Laredo	3439	1	2004		10	ARP	584	0.0	0.23	19.8	9,431.2	158,816
TX	Laredo	3439	1	2004		11	ARP	66	0.0	0.26	2.3	1,068.1	17,991
TX	Laredo	3439	1	2004		12	ARP	73	0.0	0.24	1.4	655.3	11,007
TX	Laredo	3439	1	2005		1	ARP	467	0.0	0.23	8.1	3,991.4	67,151
TX	Laredo	3439	1	2005		2	ARP	216	0.0	0.21	3.5	1,793.0	30,278
TX	Laredo	3439	1	2005		3	ARP	99	0.0	0.18	1.9	1,062.0	17,869
TX	Laredo	3439	1	2005		4	ARP	105	0.0	0.22	3.4	1,577.4	26,547
TX	Laredo	3439	1	2005		5	ARP	511	0.0	0.22	16.8	8,061.3	135,652
TX	Laredo	3439	1	2005		6	ARP	583	0.1	0.24	22.9	10,333.7	173,883
TX	Laredo	3439	1	2005		7	ARP	744	0.1	0.23	26.7	12,968.8	218,221
TX	Laredo	3439	1	2005		8	ARP	744	0.1	0.23	26.8	12,748.6	214,537
TX	Laredo	3439	1	2005		9	ARP	625	0.1	0.24	24.2	11,166.6	187,887
TX	Laredo	3439	1	2005		10	ARP	0					
TX	Laredo	3439	1	2005		11	ARP	0					
TX	Laredo	3439	1	2005		12	ARP	0					
TX	Laredo	3439	1	2006		1	ARP	57	0.001	0.146	0.165	136.1	2286.975
TX	Laredo	3439	1	2006		2	ARP	121.75	0.009	0.2631	4.424	1845.875	31057.5
TX	Laredo	3439	1	2006		3	ARP	500	0.038	0.2198	14.766	7543.375	126919.3
TX	Laredo	3439	1	2006		4	ARP	720	0.071	0.2623	32.471	14111.6	237457.1
TX	Laredo	3439	1	2006		5	ARP	744	0.07	0.2497	30.664	13837.4	232844.7
TX	Laredo	3439	1	2006		6	ARP	720	0.072	0.247	30.682	14231.1	239472.3
TX	Laredo	3439	1	2006		7	ARP	744	0.07	0.237	29.316	13869	233384.1
TX	Laredo	3439	1	2006		8	ARP	744	0.069	0.2358	28.778	13655.9	229804.4
TX	Laredo	3439	1	2006		9	ARP	715.25	0.063	0.2308	25.809	12561.725	211371.275
TX	Laredo	3439	1	2006		10	ARP	744	0.054	0.2174	20.43	10621.8	178735.8
TX	Laredo	3439	1	2006		11	ARP	100.75	0.008	0.244	3.38	1524.4	25649.85
TX	Laredo	3439	1	2006		12	ARP	633	0.042	0.2289	16.547	8276.95	139278.1

STATE	FACILITY_NAME	ORISPL_CODE	UNITID	OP_YEAR	ASSOC_STACKS	OP_MONTH	PRG_CODE_INFO	SUM_OP_TIME	SO2_MASS	NOX_RATE	NOX_MASS	CO2_MASS	HEAT_INPUT
TX	Laredo	3439	1	2007		1	ARP	744	0.054	0.2424	22.717	10691.2	179910.8
TX	Laredo	3439	1	2007		2	ARP	298.25	0.019	0.2604	8.943	3841.425	64640.05
TX	Laredo	3439	1	2007		3	ARP	561.25	0.037	0.22	14.581	7402.35	124546.55
TX	Laredo	3439	1	2007		4	ARP	479.5	0.029	0.2207	11.404	5679.15	95562.775
TX	Laredo	3439	1	2007		5	ARP	696.75	0.044	0.2149	16.627	8715.5	146648.725
TX	Laredo	3439	1	2007		6	ARP	720	0.052	0.2037	18.761	10330.1	173827.7
TX	Laredo	3439	1	2007		7	ARP	744	0.059	0.2072	21.415	11623.9	195580
TX	Laredo	3439	1	2007		8	ARP	728.25	0.057	0.2196	22.213	11293.875	190029
TX	Laredo	3439	1	2007		9	ARP	720	0.051	0.2363	21.23	10021.2	168612.8
TX	Laredo	3439	1	2007		10	ARP	743.25	0.052	0.2521	23.147	10385.525	174760.3
TX	Laredo	3439	1	2007		11	ARP	119	0.008	0.2206	2.973	1498.025	25210.65
TX	Laredo	3439	1	2007		12	ARP	222.5	0.017	0.2705	8.419	3329.675	56025.2
TX	Laredo	3439	1	2008		1	ARP, CAIRNOX	323.42	0.023	0.2424	10.136	4648.928	78234.133
TX	Laredo	3439	1	2008		2	ARP, CAIRNOX	144.58	0.011	0.2511	4.726	2125.014	35751.569
TX	Laredo	3439	1	2008		3	ARP, CAIRNOX	670.22	0.057	0.2899	28.356	11234.218	189024.432
TX	Laredo	3439	1	2008		4	ARP, CAIRNOX	628.32	0.049	0.2443	21.098	9751.805	164092.762
TX	Laredo	3439	1	2008		5	ARP, CAIRNOX	201.53	0.016	0.2423	7.027	3157.625	53136.374
TX	Laredo	3439	1	2008		6	ARP, CAIRNOX	557.58	0.043	0.2535	19.464	8547.2	143825.211
TX	Laredo	3439	1	2008		7	ARP, CAIRNOX	662.84	0.035	0.239	14.613	6936.055	116727.605
TX	Laredo	3439	1	2008		8	ARP, CAIRNOX	0					
TX	Laredo	3439	1	2008		9	ARP, CAIRNOX	1.44	0	0.02	0	2.14	36.162
TX	Laredo	3439	1	2008		10	ARP, CAIRNOX	0					
TX	Laredo	3439	1	2008		11	ARP, CAIRNOX	0					
TX	Laredo	3439	1	2008		12	ARP, CAIRNOX	0					
TX	Laredo	3439	2	2003		1	ARP	0					
TX	Laredo	3439	2	2003		2	ARP	22	0.0	0.19	0.4	168.0	2,821
TX	Laredo	3439	2	2003		3	ARP	137	0.0	0.25	4.6	1,710.2	28,776
TX	Laredo	3439	2	2003		4	ARP	59	0.0	0.16	0.7	428.8	7,213
TX	Laredo	3439	2	2003		5	ARP	363	0.0	0.25	11.8	4,886.7	82,235
TX	Laredo	3439	2	2003		6	ARP	614	0.0	0.27	23.9	9,565.6	160,985
TX	Laredo	3439	2	2003		7	ARP	587	0.1	0.27	25.6	10,042.5	168,964
TX	Laredo	3439	2	2003		8	ARP	640	0.1	0.29	30.0	11,235.9	189,058
TX	Laredo	3439	2	2003		9	ARP	547	0.0	0.29	23.3	8,696.8	146,314
TX	Laredo	3439	2	2003		10	ARP	99	0.0	0.25	3.7	1,322.1	22,236
TX	Laredo	3439	2	2003		11	ARP	58	0.0	0.28	1.6	587.2	9,879
TX	Laredo	3439	2	2003		12	ARP	101	0.0	0.34	4.6	1,379.1	23,209
TX	Laredo	3439	2	2004		1	ARP	146	0.0	0.31	6.5	2,155.9	36,255
TX	Laredo	3439	2	2004		2	ARP	30	0.0	0.27	1.1	360.3	6,063
TX	Laredo	3439	2	2004		3	ARP	0					
TX	Laredo	3439	2	2004		4	ARP	258	0.0	0.29	11.5	3,906.2	65,752
TX	Laredo	3439	2	2004		5	ARP	396	0.0	0.33	20.9	6,662.2	112,184
TX	Laredo	3439	2	2004		6	ARP	718	0.1	0.35	42.2	13,213.3	222,499
TX	Laredo	3439	2	2004		7	ARP	739	0.1	0.36	46.5	14,255.6	240,068
TX	Laredo	3439	2	2004		8	ARP	744	0.1	0.37	47.0	14,202.1	238,863
TX	Laredo	3439	2	2004		9	ARP	608	0.1	0.34	32.6	10,548.6	177,404
TX	Laredo	3439	2	2004		10	ARP	525	0.0	0.33	29.5	9,577.7	161,193
TX	Laredo	3439	2	2004		11	ARP	232	0.0	0.28	10.0	3,626.4	60,971
TX	Laredo	3439	2	2004		12	ARP	256	0.0	0.31	9.7	3,289.2	55,381
TX	Laredo	3439	2	2005		1	ARP	459	0.0	0.29	9.8	3,920.8	66,230
TX	Laredo	3439	2	2005		2	ARP	88	0.0	0.28	2.0	786.3	13,202
TX	Laredo	3439	2	2005		3	ARP	22	0.0	0.03	0.0	33.0	565
TX	Laredo	3439	2	2005		4	ARP	110	0.0	0.22	3.1	1,172.1	19,714

STATE	FACILITY_NAME	ORISPL_CODE	UNITID	OP_YEAR	ASSOC_STACKS	OP_MONTH	PRG_CODE_INFO	SUM_OP_TIME	SO2_MASS	NOX_RATE	NOX_MASS	CO2_MASS	HEAT_INPUT
TX	Laredo	3439	2	2005		5	ARP	440	0.0	0.31	20.4	7,086.0	119,242
TX	Laredo	3439	2	2005		6	ARP	553	0.0	0.32	28.1	9,084.8	152,868
TX	Laredo	3439	2	2005		7	ARP	713	0.1	0.30	33.6	12,331.7	207,496
TX	Laredo	3439	2	2005		8	ARP	744	0.1	0.31	35.5	12,506.3	210,451
TX	Laredo	3439	2	2005		9	ARP	643	0.1	0.32	33.5	11,015.7	185,371
TX	Laredo	3439	2	2005		10	ARP	429	0.0	0.28	16.9	6,186.2	104,099
TX	Laredo	3439	2	2005		11	ARP	268	0.0	0.27	10.1	4,000.2	67,302
TX	Laredo	3439	2	2005		12	ARP	248	0.0	0.30	10.0	3,510.6	59,080
TX	Laredo	3439	2	2006		1	ARP	236.25	0.02	0.3455	12.705	3924.425	66019.375
TX	Laredo	3439	2	2006		2	ARP	145.5	0.012	0.3039	6.909	2328.275	39175.175
TX	Laredo	3439	2	2006		3	ARP	325.75	0.027	0.298	14.896	5251.5	88369.075
TX	Laredo	3439	2	2006		4	ARP	719.25	0.071	0.3553	44.443	14149.525	238083.575
TX	Laredo	3439	2	2006		5	ARP	677.5	0.063	0.3068	35.064	12467.75	209811.775
TX	Laredo	3439	2	2006		6	ARP	666.25	0.067	0.3198	37.802	13230.7	222642.275
TX	Laredo	3439	2	2006		7	ARP	744	0.072	0.3185	40.424	14245.5	239704.1
TX	Laredo	3439	2	2006		8	ARP	742	0.074	0.3105	40.281	14655.4	246588.1
TX	Laredo	3439	2	2006		9	ARP	714.5	0.064	0.3186	36.183	12748.7	214522.65
TX	Laredo	3439	2	2006		10	ARP	143.5	0.012	0.302	6.363	2334.35	39276.35
TX	Laredo	3439	2	2006		11	ARP	643.75	0.041	0.3178	23.322	8099.725	136280.1
TX	Laredo	3439	2	2006		12	ARP	673.5	0.047	0.3337	27.304	9217.55	155104.35
TX	Laredo	3439	2	2007		1	ARP	697	0.054	0.3727	35.391	10628.975	178858.8
TX	Laredo	3439	2	2007		2	ARP	157	0.01	0.3109	6.344	1999.275	33631.125
TX	Laredo	3439	2	2007		3	ARP	536.5	0.033	0.3296	20.137	6632.35	111614.85
TX	Laredo	3439	2	2007		4	ARP	335.25	0.019	0.3234	11.022	3739.9	62910.8
TX	Laredo	3439	2	2007		5	ARP	389.5	0.024	0.2767	12.125	4706.425	79220.475
TX	Laredo	3439	2	2007		6	ARP	720	0.053	0.2799	26.3	10414.8	175245.6
TX	Laredo	3439	2	2007		7	ARP	572.25	0.04	0.2517	17.975	7968.1	134059.25
TX	Laredo	3439	2	2007		8	ARP	722.25	0.058	0.2857	29.496	11463.325	192901.575
TX	Laredo	3439	2	2007		9	ARP	720	0.053	0.2929	28.083	10553.9	177593.7
TX	Laredo	3439	2	2007		10	ARP	214.25	0.017	0.304	9.316	3326.425	55967.8
TX	Laredo	3439	2	2007		11	ARP	505	0.032	0.3027	17.238	6368.5	107166.025
TX	Laredo	3439	2	2007		12	ARP	181.75	0.014	0.3239	8.328	2707.275	45547.35
TX	Laredo	3439	2	2008		1	ARP, CAIRNOX	171.2	0.012	0.3318	7.403	2445.342	41145.02
TX	Laredo	3439	2	2008		2	ARP, CAIRNOX	414.36	0.031	0.3308	18.542	6233.638	104888.964
TX	Laredo	3439	2	2008		3	ARP, CAIRNOX	741.68	0.063	0.3551	39.291	12455.336	209601.524
TX	Laredo	3439	2	2008		4	ARP, CAIRNOX	672.57	0.055	0.3272	32.342	10986.056	184857.209
TX	Laredo	3439	2	2008		5	ARP, CAIRNOX	593.12	0.047	0.309	26.142	9400.456	158192.844
TX	Laredo	3439	2	2008		6	ARP, CAIRNOX	647.83	0.053	0.3188	29.906	10462.098	176040.917
TX	Laredo	3439	2	2008		7	ARP, CAIRNOX	670.37	0.037	0.2811	18.429	7335.676	123427.76
TX	Laredo	3439	2	2008		8	ARP, CAIRNOX	0					
TX	Laredo	3439	2	2008		9	ARP, CAIRNOX	1.48	0	0.008	0	0.539	9.353
TX	Laredo	3439	2	2008		10	ARP, CAIRNOX	0					
TX	Laredo	3439	2	2008		11	ARP, CAIRNOX	0					
TX	Laredo	3439	2	2008		12	ARP, CAIRNOX	0					
TX	Laredo	3439	3	2003		1	ARP	744	0.1	0.12	22.2	21,763.6	366,218
TX	Laredo	3439	3	2003		2	ARP	622	0.1	0.12	20.1	19,891.8	334,700
TX	Laredo	3439	3	2003		3	ARP	484	1.5	0.12	11.4	12,008.5	192,097
TX	Laredo	3439	3	2003		4	ARP	712	0.1	0.12	21.9	20,901.6	351,693
TX	Laredo	3439	3	2003		5	ARP	744	0.2	0.13	34.6	32,575.3	548,124
TX	Laredo	3439	3	2003		6	ARP	720	0.2	0.13	39.0	36,711.2	617,739
TX	Laredo	3439	3	2003		7	ARP	744	0.2	0.12	41.9	41,358.7	695,930
TX	Laredo	3439	3	2003		8	ARP	744	0.2	0.12	39.4	38,915.7	654,830

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TX	Laredo	3439	3	2003		9	ARP	720	0.2	0.12	34.5	34,857.7	586,547
TX	Laredo	3439	3	2003		10	ARP	718	0.1	0.12	29.8	29,066.5	489,066
TX	Laredo	3439	3	2003		11	ARP	720	0.1	0.12	28.2	28,081.6	472,505
TX	Laredo	3439	3	2003		12	ARP	664	1.0	0.11	28.9	29,837.2	495,794
TX	Laredo	3439	3	2004		1	ARP	675	0.2	0.12	34.6	35,188.6	591,944
TX	Laredo	3439	3	2004		2	ARP	656	0.1	0.12	21.6	21,936.0	369,176
TX	Laredo	3439	3	2004		3	ARP	457	0.1	0.11	13.2	13,680.5	230,327
TX	Laredo	3439	3	2004		4	ARP	271	0.0	0.12	8.4	8,106.5	136,504
TX	Laredo	3439	3	2004		5	ARP	687	0.2	0.12	32.1	30,941.9	520,748
TX	Laredo	3439	3	2004		6	ARP	704	0.2	0.12	38.8	38,664.9	650,546
TX	Laredo	3439	3	2004		7	ARP	725	0.2	0.12	41.7	39,624.7	667,090
TX	Laredo	3439	3	2004		8	ARP	744	0.2	0.13	45.1	42,337.6	712,161
TX	Laredo	3439	3	2004		9	ARP	720	0.2	0.13	41.4	39,314.8	661,569
TX	Laredo	3439	3	2004		10	ARP	744	0.2	0.13	44.1	39,176.4	659,500
TX	Laredo	3439	3	2004		11	ARP	642	0.1	0.12	26.4	25,996.4	437,734
TX	Laredo	3439	3	2004		12	ARP	693	0.1	0.12	20.0	20,161.2	339,108
TX	Laredo	3439	3	2005		1	ARP	171	0.0	0.12	4.3	4,039.6	68,058
TX	Laredo	3439	3	2005		2	ARP	559	0.1	0.12	13.9	13,442.3	226,431
TX	Laredo	3439	3	2005		3	ARP	624	0.1	0.12	15.8	15,768.6	265,615
TX	Laredo	3439	3	2005		4	ARP	590	0.1	0.12	16.7	16,795.5	282,609
TX	Laredo	3439	3	2005		5	ARP	657	0.1	0.12	27.9	27,409.8	461,199
TX	Laredo	3439	3	2005		6	ARP	720	0.2	0.12	37.7	36,538.5	614,830
TX	Laredo	3439	3	2005		7	ARP	744	0.2	0.12	40.9	39,397.1	662,919
TX	Laredo	3439	3	2005		8	ARP	743	0.2	0.16	60.5	42,441.5	715,406
TX	Laredo	3439	3	2005		9	ARP	717	0.2	0.23	82.3	37,635.3	633,019
TX	Laredo	3439	3	2005		10	ARP	640	0.1	0.12	27.8	27,093.7	455,893
TX	Laredo	3439	3	2005		11	ARP	720	0.1	0.12	25.3	25,485.8	428,850
TX	Laredo	3439	3	2005		12	ARP	744	0.1	0.12	27.1	28,049.4	471,970
TX	Laredo	3439	3	2006		1	ARP	656.75	0.138	0.1135	25.939	27319.975	459710.775
TX	Laredo	3439	3	2006		2	ARP	672	0.183	0.1141	34.643	36341.8	611508.4
TX	Laredo	3439	3	2006		3	ARP	558.5	0.132	0.1156	25.611	26096.775	439134.525
TX	Laredo	3439	3	2006		4	ARP	137.5	0.027	0.1034	5.091	5350.375	90019.95
TX	Laredo	3439	3	2006		5	ARP	652.5	0.156	0.1106	29.361	30952.625	520851.35
TX	Laredo	3439	3	2006		6	ARP	675.25	0.178	0.113	33.704	35254.425	593233.4
TX	Laredo	3439	3	2006		7	ARP	706	0.192	0.1142	36.654	37979.95	639077.6
TX	Laredo	3439	3	2006		8	ARP	744	0.219	0.1148	41.922	43473.8	731514.5
TX	Laredo	3439	3	2006		9	ARP	720	0.193	0.1148	36.726	38194.6	642695.6
TX	Laredo	3439	3	2006		10	ARP	742.5	0.193	0.1115	35.928	38329.325	644980.95
TX	Laredo	3439	3	2006		11	ARP	720	0.173	0.1114	31.972	34183.2	575209.1
TX	Laredo	3439	3	2006		12	ARP	744	0.186	0.1149	35.639	36820.6	619575.9
TX	Laredo	3439	3	2007		1	ARP	744	0.212	0.1126	39.62	41943.5	705765.4
TX	Laredo	3439	3	2007		2	ARP	672	0.099	0.114	18.605	19600	329785.6
TX	Laredo	3439	3	2007		3	ARP	216.75	0.005	0.1147	0.873	904.25	15218.825
TX	Laredo	3439	3	2007		4	ARP	509	0.127	0.1128	24.45	25228.65	424524.325
TX	Laredo	3439	3	2007		5	ARP	744	0.19	0.1161	36.601	37679	634018.5
TX	Laredo	3439	3	2007		6	ARP	720	0.205	0.1169	39.805	40607.5	683286.7
TX	Laredo	3439	3	2007		7	ARP	707.75	0.181	0.1164	35.359	35819.475	602732.025
TX	Laredo	3439	3	2007		8	ARP	744	0.184	0.1188	36.243	36483.5	613934.2
TX	Laredo	3439	3	2007		9	ARP	719.25	0.172	0.1151	32.84	34066.325	573240.8
TX	Laredo	3439	3	2007		10	ARP	726.25	0.167	0.115	31.967	33043.55	556037.75
TX	Laredo	3439	3	2007		11	ARP	697	0.144	0.1144	27.654	28615.9	481538.6
TX	Laredo	3439	3	2007		12	ARP	739.75	0.191	0.1146	36.647	37927.525	638216.15

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TX	Laredo	3439	3	2008		1	ARP, CAIRNOX	744	0.167	0.1133	31.396	33039.6	555932.8
TX	Laredo	3439	3	2008		2	ARP, CAIRNOX	360.52	0.087	0.1145	16.484	17150.668	288602.52
TX	Laredo	3439	3	2008		3	ARP, CAIRNOX	0					
TX	Laredo	3439	3	2008		4	ARP, CAIRNOX	94.38	0.011	0.0871	1.948	2161.996	36380.551
TX	Laredo	3439	3	2008		5	ARP, CAIRNOX	743.78	0.176	0.1138	33.306	34789.384	585388.234
TX	Laredo	3439	3	2008		6	ARP, CAIRNOX	695.84	0.186	0.1099	34.319	36924.132	621321.668
TX	Laredo	3439	3	2008		7	ARP, CAIRNOX	722.45	0.131	0.1099	23.692	25940.562	436510.271
TX	Laredo	3439	3	2008		8	ARP, CAIRNOX	287.97	0.045	0.1099	8.415	8887.422	149542.708
TX	Laredo	3439	3	2008		9	ARP, CAIRNOX	27.25	0.003	0.0693	0.586	613.669	10321.249
TX	Laredo	3439	3	2008		10	ARP, CAIRNOX	0					
TX	Laredo	3439	3	2008		11	ARP, CAIRNOX	0					
TX	Laredo	3439	3	2008		12	ARP, CAIRNOX	0					