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1999 Compliance Report



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BACKGROUND

The Acid Rain Program was established under Title IV of the 1990 Clean Air Act Amendments. The Program calls for major reductions of sulfur dioxide (SO₂) and nitrogen oxides (NO_x), the pollutants that cause acid rain, while establishing a new approach to environmental protection through the use of market incentives. The Program sets a permanent cap on the total amount of SO₂ that may be emitted by electric utilities nationwide at about one half of the amount emitted in 1980, and allows flexibility for individual utility units to select their own methods of compliance. The Program also sets NO_x emission limitations (in lb/mmBtu) for electric utilities representing about a 27 percent reduction from 1990 levels. The Acid Rain Program is implemented in two phases: Phase I began in 1995 for SO₂ and 1996 for NO_x, and ended December 31, 1999; Phase II for both pollutants began January 1, 2000 and involves over 2,300 units. In 1999, there were 398 units affected by the SO₂ provisions of the Acid Rain Program, 236 of which were also affected for NO_x, and an additional 303 utility units affected only by the NO_x provisions.

Acid rain causes acidification of lakes and streams and contributes to the damage of trees at high elevations. In addition, acid rain accelerates the decay of building materials, paints, and cultural artifacts, including irreplaceable buildings, statues, and sculptures. While airborne, SO₂ and NO_x gases and their particulate matter derivatives, sulfates and nitrates, contribute to visibility degradation and impact public health.

The SO₂ component of the Acid Rain Program represents a dramatic departure from traditional command and control regulatory methods that establish source-specific emissions limitations. Instead, the Program introduces a trading system for SO₂ that facilitates lowest-cost emissions reductions and an overall emissions cap that ensures the maintenance of the environmental goal. The Program features tradable SO₂ emissions allowances, where one allowance is a limited authorization to emit one ton of SO₂. Allowances may be bought, sold, or banked by utilities, brokers, or anyone else interested in holding them. Existing utility units were allocated allowances for each future compliance year and all participants of the Program are obliged to surrender to EPA the number of allowances that correspond to their annual emissions starting either in Phase I or Phase II of the Program.

The NO_x component of the Acid Rain Program is more traditional, and establishes an emission rate limit for all NO_x-affected units. Flexibility is also introduced to this command and control measure, however, through compliance options such as emissions averaging, whereby a utility can meet the standard emission limitations by averaging the emissions rates of two or more boilers. This allows utilities to over-control at units where it is technically easier to control emissions, thereby achieving emissions reductions at a lower cost. Additionally, beginning in 1997, certain Phase II units could voluntarily elect to become subject to Acid Rain NO_x limits before January 1, 2000, the date by which they would normally be subject. By complying with Phase I limits, these early election units can delay meeting the more stringent Phase II limits until 2008.

At the end of each year, utilities must demonstrate compliance with the provisions of the Acid Rain Program. For the NO_x portion of the Program, utilities must achieve an annual emission limitation at or below mandated levels. For SO₂, utilities are granted a 60-day grace period during which additional SO₂ allowances may be purchased, if necessary, to cover each unit's emissions for the previous year. At the end of the grace period (the Allowance Transfer Deadline), the allowances a unit holds in its Allowance Tracking System (ATS) account must equal or exceed the unit's annual SO₂ emissions. In addition, in 1995-1999 (Phase I of the Program), units must have sufficient allowances to cover certain other deductions as well. Any remaining SO₂ allowances may be sold or banked for use in future years.

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TO THE READER:

It's hard to believe that over 5 years have passed since January 1, 1995 and the official beginning of Phase I of the Acid Rain Program. Yet the publishing of this 1999 Compliance Report for the Acid Rain Program brings to a close Phase I (which officially ended December 31, 1999) and marks the beginning of Phase II, which of course officially began on January 1, 2000.

From a regulatory standpoint, the end of Phase I and the beginning of Phase II means a simpler, more streamlined Program. Relatively complicated Phase I SO₂ compliance options such as substitution and compensating unit plans, Phase I extension plans, and reduced utilization plans disappear beginning in Phase II. Beginning in 2000, affected units are simply required to hold allowances to account for their SO₂ emissions.

Similarly, the end of Phase I also marks the end of EPA's responsibility as the permitting authority for Phase I affected sources. In Phase II, the State or Local title V permitting authority is the sole permitting authority for all affected sources, including Phase I affected sources formerly permitted by EPA.

But while becoming simpler administratively, the end of Phase I and the beginning of Phase II also brings significant new challenges. The number of affected units that must undergo annual reconciliation under the Acid Rain Program expands notably in Phase II. For SO₂ purposes, the number of affected units that must hold allowances to account for SO₂ emissions will grow more than fivefold, from 398 units in 1999 to over 2100 units for compliance year 2000. Also, units subject to an Acid Rain NO_x emissions limitation will almost double in Phase II, from 539 units in 1999 (including early election units) to about 1050 units beginning in 2000.

New units that will be subject to the Acid Rain Program are being built as well. Currently, the Acid Rain Program expects that about 500 new affected units will come online over the next 2 years. Affected companies, EPA, and States will need to ensure that these units comply with all requirements of the Program, including the requirements to monitor properly under 40 CFR part 75 (the Acid Rain Program monitoring rule) and to hold sufficient allowances to account for SO₂ emissions for each compliance year.

As we move to Phase II, I am looking forward to working with all parties involved in the implementation of the Acid Rain Program, and in furthering the promise shown by the successful implementation of Phase I.

Brian J. McLean, Director
Clean Air Markets Division

SUMMARY

100 Percent Compliance with both SO₂ and NO_x Requirements in 1999

All 701 boilers and combustion turbines (referred to as “units”) affected by the SO₂ and NO_x regulations of the Acid Rain Program in 1999 successfully met their emissions compliance obligations.

- , All 398 units subject to SO₂ requirements in 1999 held sufficient allowances to cover their emissions. Of the 4,948,090 allowances deducted from compliance accounts almost all (4,944,665 or 99.93 percent) were for emissions, but other deductions were also made as required by the Acid Rain Program regulations.
- , All 539 units subject to the NO_x requirements in 1999 demonstrated compliance with applicable annual emission limitations. Of these 539 units, 236 were also subject to SO₂ requirements, while 303 units were affected only for NO_x (33 Phase I units and 270 Phase II “early election” units).

1999 SO₂ Emissions of Phase I Units were 29 Percent Below Allowable Level; Emission Rates 45 Percent Lower Than in 1990.

SO₂ emissions in 1999 were 2.0 million tons (or 29 percent) below the 6.9 million ton allowable level as determined by 1999 allowance allocations. Since an additional 9.6 million allowances were carried over, or banked, from 1998, the overall number of allowances available in 1999 was 16.5 million, of which affected units consumed only about 30 percent. Actual emissions for the 398 units participating in 1999 were 4.9 million tons, down 350,000 tons from emissions of the 408 units affected in 1998. In 1999, SO₂ emission rates of Phase I units averaged 1.86 lbs/mmBtu, down from 3.37 lbs/mmBtu in 1990 for those same units.

1999 Phase I Unit NO_x Emission Rates 43 Percent Below 1990; NO_x Tons 32 Percent Lower Than in 1990

Emission rates for the 265 Phase I utility units dropped by 43 percent below 1990 levels, from an average of 0.70 pounds of NO_x per million Btu of heat input (lb/mmBtu) to an average of 0.40 lbs/mmBtu; this rate is 18 percent below the compliance rate of 0.49 lbs/mmBtu for these units. NO_x emission levels for these units were 423,857 tons (or 32 percent) below 1990 levels.

1999 NO_x Emission Rates of Early Election Units Even Lower Than Rates for Phase I Units

For the 274 Phase II units which elected to meet Phase I NO_x rates early, emission rates dropped from an average of 0.46 lbs/mmBtu in 1990 to 0.37 lbs/mmBtu in 1999, a 20 percent decrease and 21 percent below the compliance rate of 0.47 lbs/mmBtu for these units. While utilization of these units increased by 28 percent between 1990 and 1999, NO_x tons increased by only 3 percent.

Monitoring Performance Excellent Once Again

For the fifth year of the Acid Rain Program, the continuous emission monitors used by participants continue to provide some of the most accurate and complete data ever collected by the EPA. Statistics reflect excellent monitor operation of all units affected by both Phase I and Phase II of the program.

Accuracy: SO₂ monitors achieved a median relative accuracy (i.e., deviation from the reference test method) of 3.0 percent; flow monitors, 3.2 percent; and NO_x monitors, 3.6 percent. Any statistically significant systematic underestimation (low bias) is corrected to eliminate any systematic errors.

Availability: SO₂ and flow monitors achieved a median availability of 99.5 and 99.7 percent, respectively, while NO_x monitors achieved a median availability of 99.2 percent.

SO₂ Market Active; Volume of Allowances Transferred Continues to Increase in 1999

Activity in the allowance market continued to increase in 1999. The total volume of allowances transferred increased from 13.5 million in 1998 to 18.7 million in 1999, however transfers of allowances between unrelated parties decreased from 9.5 million in 1998 to 6.2 million in 1999.

AFFECTED POPULATION IN PHASE I

Exhibit 1 provides a summary of the affected population of units under the Acid Rain Program from 1995 through 1999. The table illustrates that although the units listed in Table 1 of the CAAA are consistently affected for both SO₂ and NO_x beginning in 1996, the total universe of affected units varies year to year because of the flexibility offered by the program.

Exhibit 1
Affected Units During Phase I of the Acid Rain Program

		1995	1996	1997	1998	1999
SO ₂	Table 1	263	263	263	263	263
	Substitution and Compensating	182	161	153	135	125
	Opt-in	0	7	7	10	10
	TOTAL	445	431	423	408	398
NO _x	Table 1	NA	144	170	171	171
	Substitution	NA	95	95	94	94
	Early-Election	NA	NA	272	275	274
	TOTAL	NA	239	537	540	539

SO₂ PROGRAM

398 Units Underwent Annual Reconciliation for SO₂ in 1999

There were 388 affected utility units and 10 opt-in units that underwent annual reconciliation in 1999 to determine whether sufficient allowances were held to cover emissions. These 398 units are listed in Appendix A and include 263 utility units specifically required to participate during Phase I, 125 utility units not initially required to participate until Phase II, but electing to participate early as part of multi-unit compliance plans,¹

¹ During Phase I of the of the Acid Rain Program, a unit not originally affected until Phase II may elect to enter the program early as a substitution unit or a compensating unit to help fulfill the compliance obligations for one of the Table 1 units targeted by Phase I. A unit brought into Phase I as a substitution unit can assist a Table 1 unit in meeting its emissions reductions obligations. Utilities may make cost-effective emissions reductions at the substitution unit instead of at the Table 1 unit, achieving the same overall emissions reductions that would have occurred without the participation of the substitution unit. A Table 1 unit may designate a Phase II unit as a substitution unit only if both units are under the control of the same owner or operator. Additionally, Table 1 units that reduce their utilization below their baseline may designate a compensating unit to provide compensating generation to account for the reduced utilization of the Table 1 unit. (A unit's baseline is defined as its heat input

and 10 other units that elected to join as part of the Opt-in Program.² There were 10 fewer units undergoing annual reconciliation in 1999 than in 1998.

1999 SO₂ Emissions Target was 6.99 Million Tons

The number of allowances allocated in a particular year, the amount representing that year's allowable SO₂ emissions level, is the sum of allowance allocations granted to sources under several provisions of the Act. In 1999, the emissions target established by the program for the 398 participating units was 6.99 million tons. However, the total allowable SO₂ emission level in 1999 was actually 16.62 million tons, consisting of the 6.99 million 1999 allowances granted through the program and an additional 9.63 million allowances carried over, or banked, from 1998.

The initial allocation and the allowances for substitution and compensating units represent the basic allowances granted to units that authorize them to emit SO₂ under the Acid Rain Program. Additional allowances for the year 1999 were also made available through the allowance auctions, held annually since 1993. Other allowances issued in 1999 were from special provisions in the Act, which are briefly explained in Exhibit 2 on the following page. In addition, any allowances carried over from previous years (banked allowances) are available for compliance and included in the allowable total.

Beginning in the year 2000 at the onset of Phase II, the volume of allowances allocated annually to the Phase I units will be reduced and the requirement to hold allowances will be extended to smaller, cleaner plants. Nationwide, the cap for all utilities with an output capacity of greater than 25 megawatts will be 9.48 million allowances from 2000-2009. In 2010, the cap will be reduced further to 8.95 million allowances, a level approximating one half of industry-wide emissions in 1980.

SO₂ COMPLIANCE RESULTS

Phase I Units Better 1999 SO₂ Allowable Emissions Level by 29 Percent

The Phase I units affected in 1999 emitted at a level approximately 29 percent below 1999 allocations, as shown in Exhibit 3. This percentage is greater than that of 1998, since SO₂ emissions decreased while allocations remained relatively constant. Appendix B-3 reports the 1999 emission and utilization levels for all Phase I affected units, as well as a comparison to these levels in 1998.

averaged over the years 1985-1987). A Table 1 unit may designate a Phase II unit as a compensating unit if the Phase II compensating unit is in the Table 1 unit's dispatch system or has a contractual agreement with the Table 1 unit, and the emissions rate of the compensating unit has not declined substantially since 1985. See Appendix B-1 for the relationship of these units to their Table 1 counterparts.

² The Opt-in Program gives sources not required to participate in the Acid Rain Program the opportunity to enter the program on a voluntary basis, install continuous emission monitoring systems (CEMS), reduce their SO₂ emissions, and receive their own allowances.

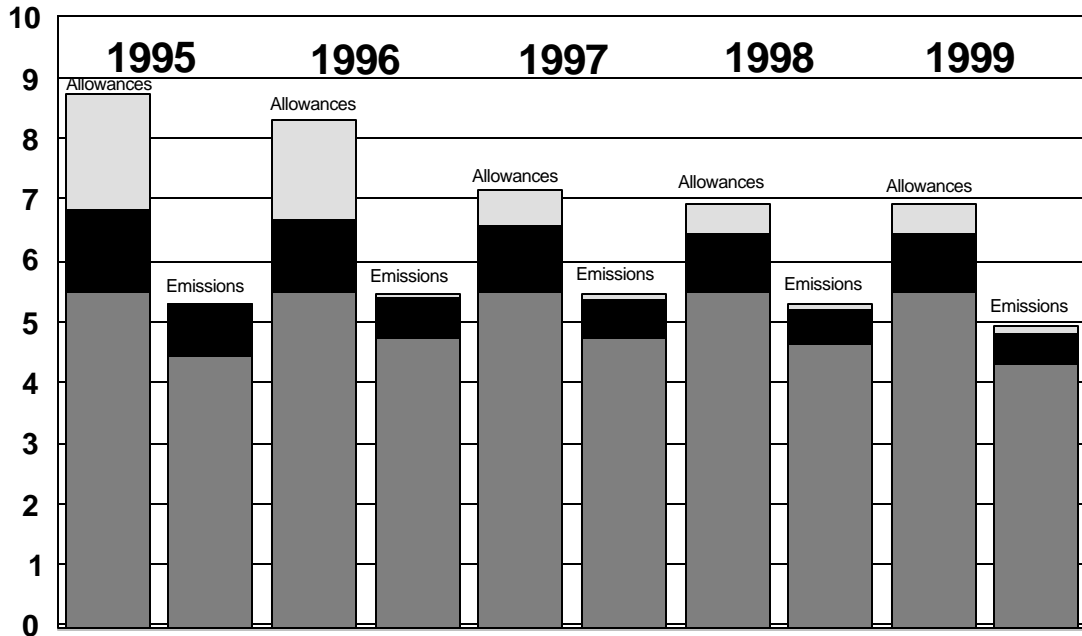
Relative to 1998, the 263 Table 1 units decreased their emissions by about 310,000 tons, or more than seven percent in 1999, while decreasing their utilization by just under one percent. The 4.35 million tons emitted by these Table 1 units were still substantially below their 1999 allocation of 5.55 million allowable tons.

Exhibit 2 Origin of 1999 Allowable Emissions Level

Type of Allowance Allocation	Number of Allowances	Explanation of Allowance Allocation Type
Initial Allocation	5,550,820	Initial Allocation is the number of allowances granted to units based on their historic utilization, emissions rates specified in the Clean Air Act and other provisions of the Act.
Phase I Extension	171,710	Phase I Extension allowances are given to Phase I units that reduce their emissions by 90 percent or reassign their emissions reduction obligations to units that reduce their emissions by 90 percent.
Allowances for Substitution Units	909,455	Allowances for Substitution Units are the initial allocation granted to Phase II units which entered Phase I as substitution units.
Allowance Auctions	150,000	Allowance Auctions provide allowances to the market that were set aside in a Special Allowance Reserve when the initial allowance allocation was made.
Allowances for Compensating Units	85,138	Allowances for Compensating Units are the initial allocation granted to Phase II units which entered Phase I as compensating units.
Opt-in Allowances	97,392	Opt-in Allowances are provided to units entering the program voluntarily.
Small Diesel Allowances	25,617	Small Diesel Allowances are allocated annually to small diesel refineries that produce and desulfurize diesel fuel during the previous year. These allowances can be earned through 1999.
TOTAL 1999 ALLOCATION	6,990,132	
BANKED 1998 ALLOWANCES	9,627,980	Banked Allowances are those held over from 1995 through 1998 which can be used for compliance in 1999 or any future year.
TOTAL 1999 ALLOWABLE	16,618,112	

Substitution and compensating units in 1999 expended a lower percentage of their annual allocation than in 1998. In 1999, these 125 units were responsible for emitting approximately 510,000 tons of SO₂, about 52 percent of their 990,000 allowance allocation. In 1998, 135 substitution and compensating units emitted approximately 550,000 tons of SO₂, or 58 percent of their 950,000 allowable level.

**Exhibit 3
Summary of SO2 Emissions versus Allocations
(Millions of Tons)**



	95 Alloc.	95 Emiss.	96 Alloc.	96 Emiss.	97 Alloc.	97 Emiss.	98 Alloc.	98 Emiss.	99 Alloc.	99 Emiss.
Table 1	5.55	4.45	5.55	4.77	5.55	4.77	5.55	4.66	5.55	4.35
S & C	1.33	0.85	1.18	0.63	1.04	0.62	0.95	0.55	0.99	0.51
Other	1.86	0.00	1.57	0.04	0.56	0.08	0.45	0.08	0.45	0.08
TOTALS	8.74	5.30	8.30	5.44	7.15	5.47	6.95	5.29	6.99	4.94

No new opt-in units joined the program in 1999, so the total allocation to opt-ins of 97,000 allowances remained almost the same as in 1998, but emissions levels rose from 80,000 tons in 1998 to 84,000 tons in 1999. The percentage of emissions to allowances allocated to opt-in units in 1999 therefore rose to 87 percent, as compared to 82 percent in 1998.

Deducting Allowances for Compliance

The total number of allowances deducted in 1999 was 4,948,090 which represents approximately 71 percent of all 1999 allowances issued. Almost all (99.93 percent) of the deducted allowances were for emissions. Exhibit 4 displays these allowance deductions, as well as the remaining bank of 1995 through 1999 allowances.

At an individual unit, the number of allowances surrendered was equal to the number of tons emitted at the unit, except where the unit shared a common stack with other units. For the purposes of surrendering allowances for emissions at a common stack, the utility was allowed to choose the proportion of allowances deducted from each unit sharing the stack, as long as enough allowances were surrendered to cover the total

number of tons emitted. If no apportionment was made, EPA deducted allowances equally among the units sharing the stack to cover total emissions reported by the stack. Appendix B-4 reflects the deductions for emissions at each unit after the common stack apportionment was made. Units sharing a common stack are listed directly under the entry for their common stack.

Under the Acid Rain Program, certain units applied for and received approval of Phase I Extension plans during the Phase I permitting process. These units fell into two categories: “control units” which were required to cut their emissions by 90 percent using qualifying technology³ by 1997, and “transfer units” which reassigned their emissions reduction obligations to a control unit. Both kinds of units received extra SO₂ emissions allowances to cover the SO₂ they emitted beyond their basic Phase I allocations during 1995 and 1996. In addition, the control units were given Phase I extension allowances for 1997, 1998, and 1999. A total of 3.5 million allowances was distributed to all Phase I extension control and transfer units.⁴

For 1999, all 19 control units demonstrated meeting the 90 percent reduction requirement and, therefore, did not surrender any 1999 extension allowances. The 1999 tonnage emissions limitation, though, was exceeded by three control units and three transfer units and resulted in a surrender of a total of 22,477 vintage 2000 allowances. The deduction amounts for each Phase I extension unit are included in Appendix B-2.

SO₂ ALLOWANCE MARKET

The flexibility provided by the Acid Rain Program enabled the 398 units subject to an SO₂ emissions limitation in 1999 to pursue a variety of compliance options to meet their SO₂ reduction obligations, including scrubber installation, fuel switching, energy efficiency, and allowance trading. The presence of the allowance market has given some sources the incentive to overcontrol their SO₂ emissions in order to bank their allowances for use in future years. Other sources have been able to postpone and possibly avoid expenditures for control by acquiring allowances from sources that overcontrolled. The flexibility in compliance options is possible because of the accountability provided through strict monitoring requirements for all affected units that ensure one allowance is equivalent to one ton of SO₂. The program's flexibility enabled all 398 sources to be in compliance in 1999 and significantly reduced the cost of achieving these emissions reductions as compared to the cost of a technological mandate.

³Qualifying technology is defined at 40 CFR 72.2.

⁴ Beginning in 1997, each of the 19 units designated as control units was required to show it had reduced its annual emissions by at least 90 percent using qualifying control technology. If a unit could not make this demonstration, all or a portion of the extension allowances it received for the year under the Phase I Extension provisions were required to be surrendered. In addition, also beginning in 1997, each of the same 19 control units and each of the 61 other units designated as transfer units was required to meet a tonnage emission limitation approved in its permit. A unit that exceeded its limitation was required to surrender allowances for the following year.

Exhibit 4 SO₂ Allowance Reconciliation Summary

Total Allowances Held in Accounts as of 3/1/00 (1995 through 1999 Vintages)*	16,556,056
Table 1 Unit Accounts	8,577,556
Substitution & Compensating Unit Accounts	1,137,851
Opt-in Accounts	87,482
Other Accounts**	6,753,167
Allowances Deducted for Emissions in 1999	4,944,676
Table 1 Unit Accounts	4,350,181
Substitution & Compensating Unit Accounts	510,495
Opt-in Unit Accounts	84,000
Allowances Deducted Under Special Phase I Provisions in 1999***	3,425
Table 1 Unit Accounts	980
Substitution & Compensating Unit Accounts	2,311
Opt-in Unit Accounts	134
Banked Allowances	11,607,955
Table 1 Unit Accounts	4,226,395
Substitution & Compensating Unit Accounts	625,045
Opt-in Unit Accounts	3,348
Other Accounts**	6,753,167

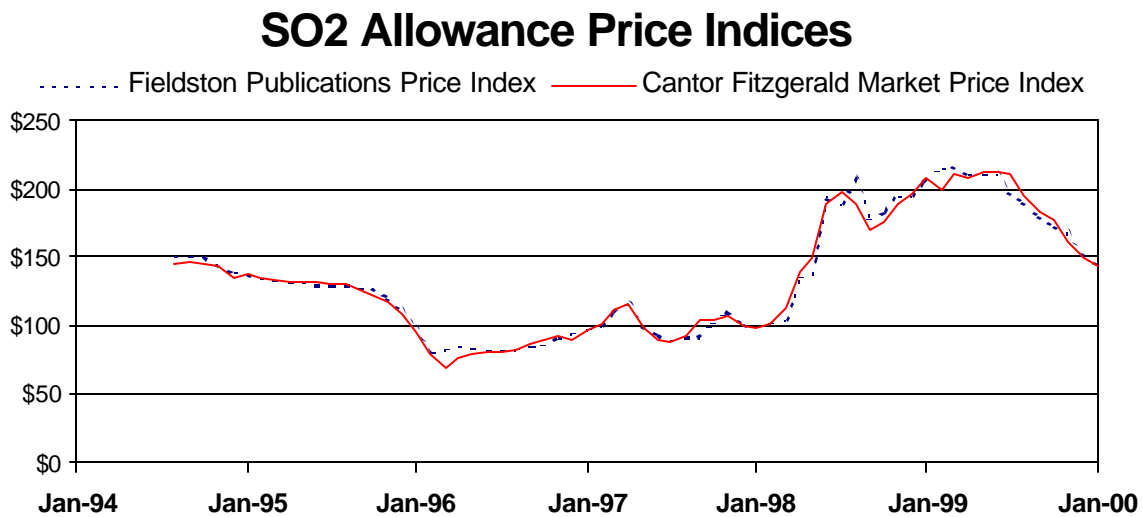
* The number of allowances held in the Allowance Tracking System (ATS) accounts equals the number of 1999 allowances allocated (see Exhibit 2) plus the number of 1998 banked allowances. March 1, 2000 represents the Allowance Transfer Deadline, the point in time at which the 1999 Phase I affected unit accounts are frozen and after which no transfers of 1995 through 1999 allowances will be recorded. The freeze on these accounts is removed when annual reconciliation is complete.

** Other accounts refers to general accounts within the ATS that can be held by any utility, individual or other organization, and unit accounts for units not affected in Phase I.

*** Allowances were deducted for both underutilization and state cap provisions in 1999 (see Appendix B-4 for a thorough explanation).

The marginal cost of reducing a ton of SO₂ from the utility sector should be reflected in the price of an allowance. The cost of reductions continues to be lower than anticipated when the Clean Air Act Amendments were enacted, and the price of allowances reflects this. The cost of compliance was initially estimated at \$400-1000/ton, but declined from over \$200 in early 1999 to less than \$150 by the end of 1999. The price was \$131/ton at the 2000 allowance auction, and prices have remained in the \$130 to \$140 range since January of 2000. Some market observers believe lower than expected allowance prices during the first several years of the program were due primarily to lower than expected compliance costs and larger than expected emission reductions, which have increased the supply of allowances and put downward pressure on prices. Exhibit 5 displays the price trend since mid-1994, based on monthly price reports from Cantor Fitzgerald Environmental Brokerage Services, and a market survey conducted by Fieldston Publications.

Exhibit 5



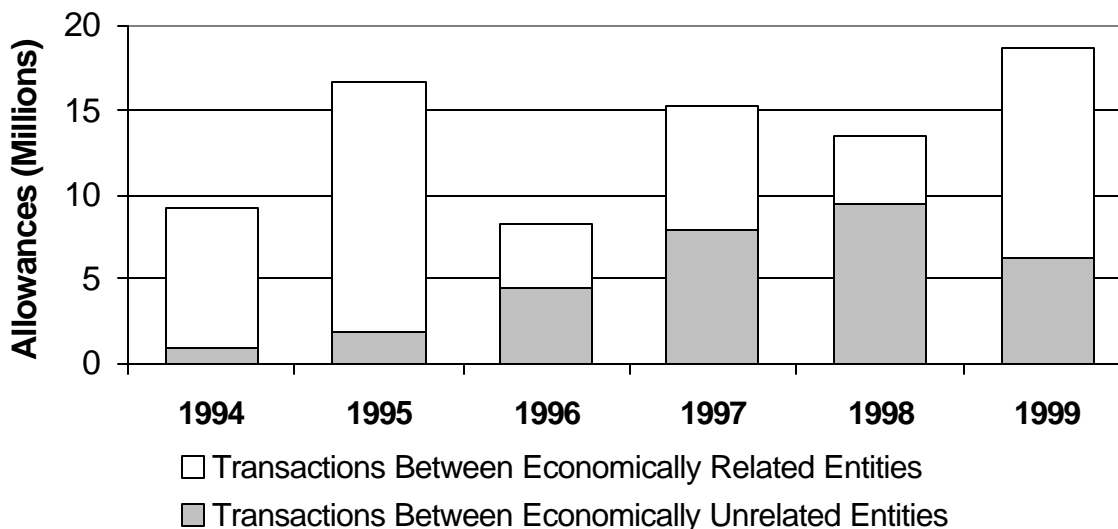
Activity in the allowance market created under the Acid Rain Program remained strong in 1999, with 2,832 transactions moving about 18.7 million allowances in the Allowance Tracking System (ATS), the accounting system developed to track holdings of allowances. In terms of economically significant transfers, or those between unrelated parties, the volume of allowances declined from 9.5 million in 1998 to 6.2 million in 1999. Thirty three percent of annual activity consisted of allowances transferred between economically distinct organizations, with a little less than half of that amount represented by allowances directly acquired by utilities.

The most active market segment in 1999 in terms of allowance volume was composed of exchanges in the reallocation category, which covered 11.4 million allowances. The next most active segment were trades between brokers/traders and utilities, which accounted for 3.4 million allowances.

All transactions, along with data on account balances and ownership, are posted on the Acid Rain Division's Internet site (www.epa.gov/acidrain) on a daily basis in order to better inform trading participants. Also available are cumulative market statistics and analysis.

Exhibit 6

SO₂ Allowances Transferred Under the Acid Rain Program



ACID RAIN NO_x PROGRAM

Instead of using allowance trading to facilitate emissions reductions, the Title IV NO_x program establishes standard emission limitations for affected units. Title IV of the 1990 Clean Air Act Amendments required EPA to establish NO_x annual average emission limits (in pounds of NO_x per million British thermal units of fuel consumed (lb/mmBtu)) for coal-fired electric utility units in two phases.

In April 1995, EPA promulgated 40 CFR part 76, which established NO_x emission limits beginning on January 1, 1996 for Group 1 boilers that were also part of the Phase I SO₂ program. (Group 1 boilers are dry bottom, wall-fired boilers or tangentially-fired boilers). Phase I dry bottom wall-fired boilers are subject to a NO_x emission limit of 0.50 lb/mmBtu; Phase I tangentially-fired boilers are subject to a NO_x emission limit of 0.45 lb/mmBtu.

In addition, the April 1995 regulations allowed Phase II Group 1 units to use an “early election” compliance option. Under this regulatory provision, Phase II, Group 1 NO_x affected units can demonstrate compliance with the higher Phase I limits for their boiler type from 1997 through 2007 and not meet the more stringent Phase II limits until 2008. If the utility fails to meet this annual limit for the boiler during any year, the unit is subject to the more stringent Phase II limit for Group 1 boilers beginning in 2000, or the year following the exceedance, whichever is later.

In December 1996, EPA revised the NO_x emission limits for Phase II, Group 1 boilers (0.46 lb/mmBtu for dry bottom wall-fired boilers and 0.40 lb/mmBtu for tangentially-fired boilers) and established emission limits

for cell burner, cyclone, wet bottom and vertically-fired boilers (referred to as "Group 2 boilers") effective on January 1, 2000. As a result of the April 1995 and December 1996 rulemakings, NO_x reductions were projected to be approximately 400,000 tons per year in 1996 through 1999 (Phase I), and 2,060,000 tons per year in 2000 and subsequent years (Phase II).

PHASE I NO_x UNITS

265 Phase I Units Were Subject to Emission Limitations in 1999

In 1999, 265 coal-fired utility units were subject to the Title IV Phase I emission limitations for NO_x. The 265 Phase I NO_x affected units include 171 Table 1 units and 94 substitution units whose owners chose to participate in Phase I as part of an SO₂ compliance strategy. This group of units is subject to the Phase I emission limitations throughout Phase I and Phase II. Exhibit 7 below shows the number of Phase I NO_x affected units by boiler type.

Exhibit 7
Phase I NO_x Units by Boiler Type

Boiler Type	Standard Emission Limit	Table 1 Units	Substitution Units	All Units
Tangentially-fired Boilers	0.45	94	41	135
Dry Bottom Wall-fired Boilers	0.50	77	53	130

Phase I NO_x Compliance Options

For each Phase I NO_x affected unit, a utility can comply with the applicable standard emission limitation, or may qualify for one of two additional compliance options which add flexibility to the rate-based compliance requirements:

- ! **Emissions Averaging.** A utility can meet the standard emission limitation by averaging the heat-input weighted annual emission rates of two or more units.
- ! **Alternative Emission Limitation (AEL).** A utility can petition for a less stringent alternative emission limitation if it uses properly installed and operated low NO_x burner technology (LNBT) designed to meet the standard limit, but is unable to achieve that limit. EPA determines whether an AEL is warranted based on analyses of emissions data and information about the NO_x control equipment.

Exhibit 8 summarizes the compliance options chosen by Phase I affected NO_x units for 1999. As in 1996,

1997, and 1998, averaging was the most widely chosen compliance option. For 1999, there were 22 averaging plans involving 204 Phase I NO_x units. See Appendix C-1: List of Averaging Plans and Results in 1999.

Exhibit 8 Compliance Options Chosen in 1999

Compliance Option	Number of Units
Compliance with Standard Emission Limitation	51
Emissions Averaging	204
Alternative Emission Limitation	10
TOTAL	265

PHASE I NO_x COMPLIANCE RESULTS

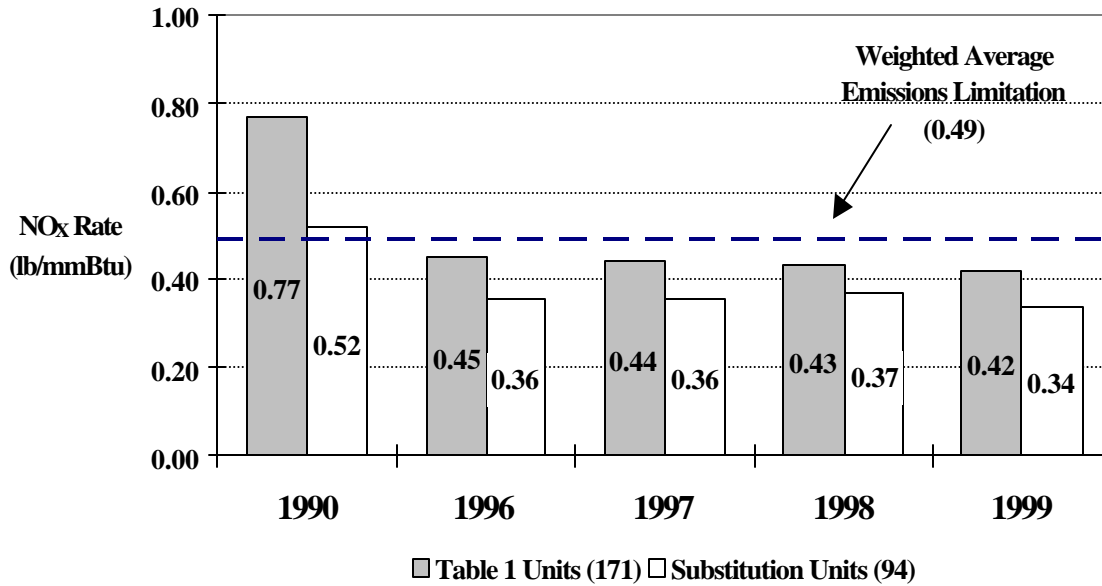
For 1999, EPA has determined that all 265 Phase I NO_x units met the required emission limit through compliance with either the standard emission limitation, emissions averaging, or an alternative emission limitation. See Appendix C-2: Compliance Results for the 265 NO_x Affected Units. For a more detailed description of EPA's methodology for determining compliance with Phase I NO_x limits, see Appendix C-4 in the Acid Rain Program 1996 Compliance Report.

NO_x Emission Rate Reduction

From 1990⁵ to 1999, the average NO_x emission rate of the 265 Phase I units declined by 43 percent (from 0.70 lb/mmBtu to 0.40 lb/mmBtu). As shown in Exhibit 9, on average, both Table 1 and substitution units were below the average Phase I emission limit of 0.49 lb/mmBtu (the heat input weighted average of the applicable limits).

⁵ For a more detailed description of the 1990 baseline refer to the Acid Rain Program 1996 Compliance Report.

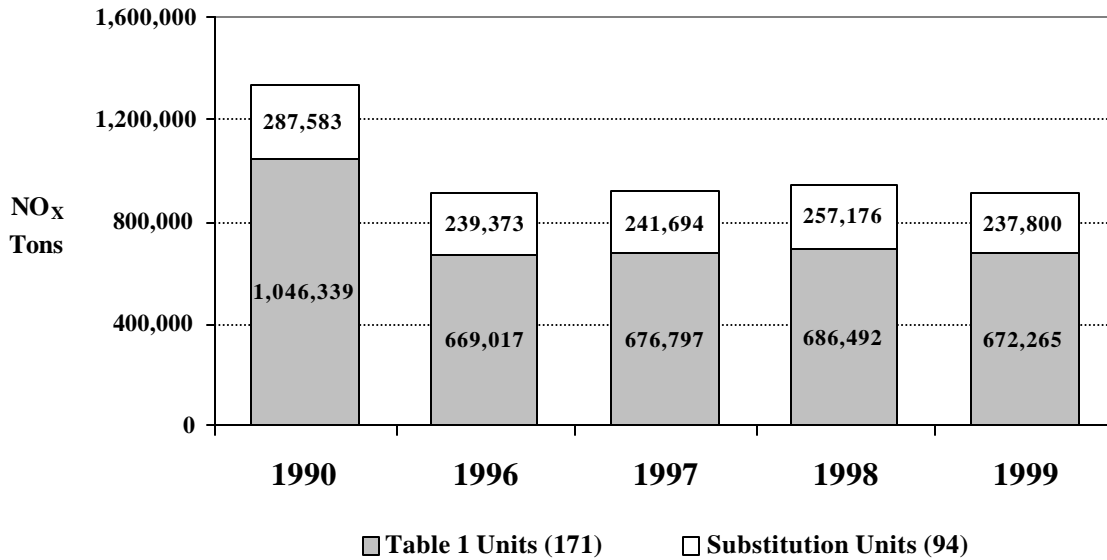
Exhibit 9
Average NO_x Emission Rates for 265 Phase I Units



NO_x Mass Emissions Reduction

Exhibit 10 illustrates the change in NO_x mass emissions since 1990 for Table 1 and substitution units. For the 265 units, total NO_x mass emissions in 1999 were 32 percent lower than in 1990, and 3 percent lower than in 1998. However, in 1999, total heat input was only 0.1 percent lower than in 1998. Therefore, the 2 percent decrease in the NO_x emission rate from 0.41 lb/mmBtu 1998 to 0.40 lb/mmBtu in 1999 had a greater impact on the reduction in NO_x mass emissions in 1999 than the reduction in total heat input.

Exhibit 10
NO_x Mass Emissions for 265 Phase I Units



PHASE II EARLY ELECTION UNITS

274 Units Were Subject to Early Election Requirements in 1999

Nineteen ninety-nine was the third year in which early election utilities were required to meet the Phase I NO_x limit.⁶ Exhibit 11 shows the number of early election units by boiler type and their corresponding emission limit.

Exhibit 11
Distribution of 1999 Early Election Units by Boiler Type

Boiler Type	Standard Emission Limit	Operating Phase II, Group 1 Units	Early Election Units	Percent of Units Electing
Tangentially-fired	0.45	300	171	57%
Dry Bottom Wall-fired	0.50	314	103	33%
Total		614	274	45%

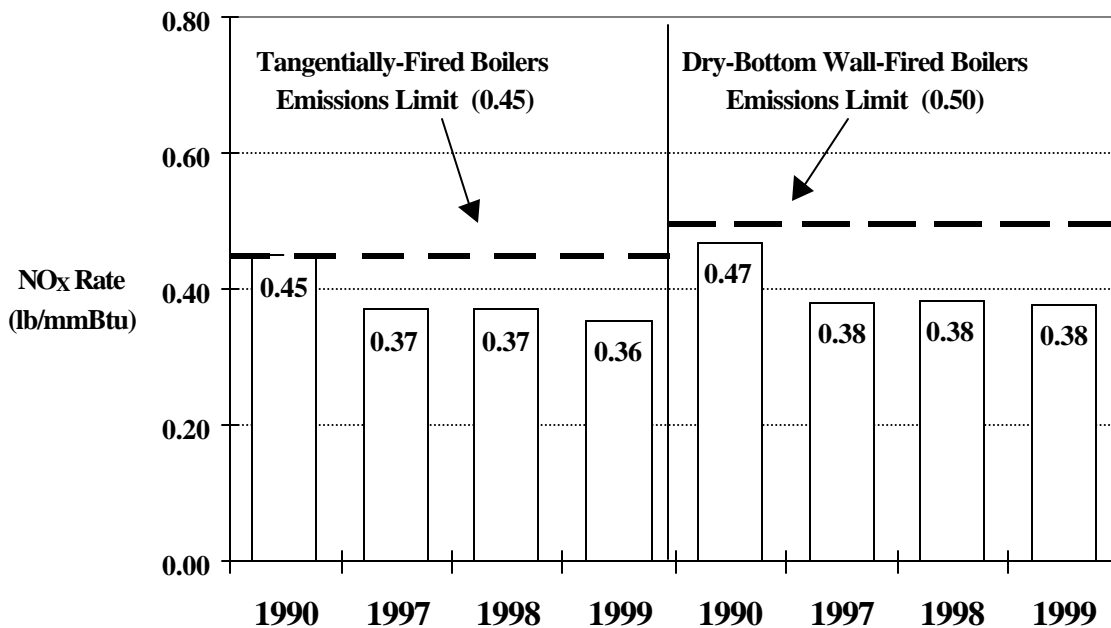
⁶ Compared with 1998, the universe of early election units was the same, except that the early election plan for D.B. Wilson Unit W1 was terminated effective January 1, 1999.

PHASE II EARLY ELECTION COMPLIANCE RESULTS

For 1999, EPA determined that all 274 units complied with the Phase I, Group 1 emission limitations and have continued eligibility for early election in 2000 through 2007. See Appendix C-3: Compliance Results for the 274 Early Election Units in 1999.

Average NO_x emission rates for early election units have declined by 20 percent, from 0.46 lb/mmBtu in 1990 to 0.37 lb/mmBtu in 1999. This decline is less dramatic than the decline at Phase I NO_x units because 51 percent of the early election units are newer units already subject to the 1979 New Source Performance Standards (NSPS) NO_x emission limits. The overall NO_x emission rate for the early election units is comparable to the average rate of 0.40 lb/mmBtu for all Phase I NO_x units. Exhibit 12 summarizes the NO_x emission rate reductions from 1990 to 1999 by boiler type for the 264 early election units that were operating in 1990.

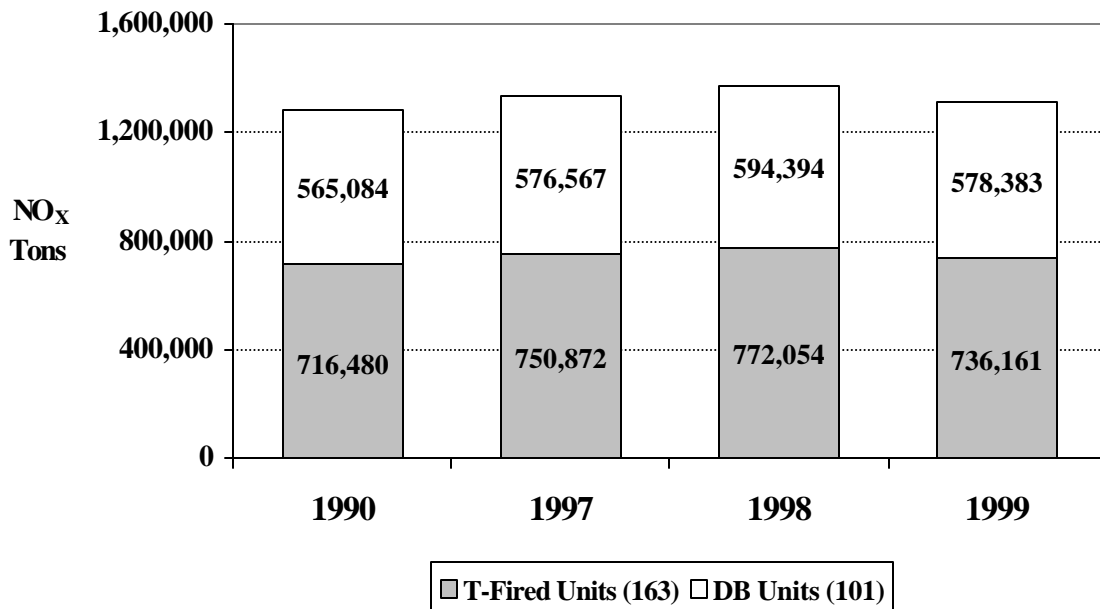
Exhibit 12
Average NO_x Emission Rate for 264 Early Election Units



NO_x Mass Emissions Reduction

The total NO_x mass emissions from the operating early election units increased by 25,708 tons (or 2 percent) from 1990 to 1999, reflecting an increase in utilization (see Exhibit 13). However, for the 264 early election units operating in 1990, heat input increased during the nine year period by approximately 28 percent. The NO_x mass emissions decreased by 4 percent from 1998 to 1999, due to a 1 percent decrease in heat input and a 3 percent decrease in the overall NO_x emission rate.

Exhibit 13
NO_x Mass Emissions for 264 Early Election Units



SO₂ AND NO_x MONITORING IN 1999

In order to verify the reductions of SO₂ and NO_x emissions mandated under the Clean Air Act and to support the SO₂ allowance trading program, a fundamental objective of the Acid Rain Program is to ensure accurate and complete accounting of pollutant emissions from affected boilers and turbines. To implement this objective, concentrations of emitted SO₂ and NO_x from each affected unit (boiler or turbine) are measured and recorded using Continuous Emissions Monitoring Systems (CEMS) (or an approved alternate measurement method) certified by EPA to meet the high accuracy standards of the Acid Rain Program.

CEMS are used to determine SO₂ mass emissions and NO_x emission rates. SO₂ mass emissions are determined using CEMS to measure SO₂ concentration and stack flow rate. NO_x emission rates, on the other hand, are determined with NO_x and diluent gas (CO₂ or O₂) concentration monitors. These monitors are required to meet strict initial and on-going performance standards to demonstrate the accuracy, precision, and timeliness of their measurement capability.

One measure of the accuracy of a CEMS is the relative accuracy test audit (RATA), which is required for initial certification of a CEMS and for on-going quality assurance. The relative accuracy test audit ensures that the installed monitor measures the "true" value of the pollutant by comparing the monitor to a reference method which simultaneously measures the stack gas pollutant. Thus, the lower the relative accuracy resulting from the test audit, the more accurate the monitor. All monitoring systems must meet a certain relative accuracy

standard in order to be qualified to report emissions to the Acid Rain Program; 10 percent for SO₂ and NO_x, and 15 percent for flow (beginning January 1, 2000, the flow standard is 10 percent). As a further incentive for high quality maintenance, CEMS that achieve a superior accuracy result, less than or equal to 7.5 percent for SO₂ and NO_x and less than or equal to 10 percent for flow (beginning January 1, 2000, the flow standard for superior accuracy is 7.5 percent), are granted a reduced frequency annual RATA requirement in place of the semiannual requirement. Because the RATA determines relative accuracy as an absolute value, it does not detect whether the difference between the reference method values and the readings from the CEMS being tested is due to random error or to systematic bias. Therefore, an additional test is required to ensure that emissions are not underestimated: the bias test. This test determines if the CEMS is systematically biased low compared to the reference method and if so, a bias adjustment factor is calculated and applied to all reported data from that monitoring system to ensure there is no systematic underreporting. Exhibit 14 highlights the relative accuracy results achieved by Acid Rain CEMS in 1999.

Exhibit 14
1999 Relative Accuracy Test Audit (RATA) Results

	SO ₂ Concentration	Volumetric Flow Rate	NO _x Rate
Mean Relative Accuracy	4.2%	3.9%	4.5%
Median Relative Accuracy	3.0%	3.2%	3.4%
Percent Meeting Relative Accuracy Standard	96.2%	99.4%	95.7%

Another metric used to determine the effectiveness of a CEMS is the percentage of hours that a monitoring system is operating properly and meeting all performance standards and therefore, able to record and report an emissions value. This metric is defined as the percent monitor availability (PMA). Exhibit 15 shows the monitor availabilities reported in 1999 and indicates that the CEMS used to determine SO₂ mass emissions and NO_x emission rates are well maintained and fulfilling the high performance standards required by the Acid Rain Program.

Exhibit 15
1999 CEMS Availability

Parameter	Median % Availability at End of 1999	
	Coal-Fired Units	Oil and Gas Units
SO ₂	99.5	98.9
Flow	99.7	99.0
NO _x	99.2	98.4

CONCLUSION

1999 proved to be another successful year for both the Acid Rain Program's rate-based approach to NO_x reduction and cap-and-trade approach to SO₂ reduction. In 1999, all Phase I affected utility units not only met their compliance goals, but exceeded them, achieving an overall reduction of 423,857 tons of NO_x from 1990 levels, and maintaining the extraordinary reductions of more than 5 million tons of SO₂ from 1980 levels, first achieved in 1995. Additionally, the 274 Phase II NO_x early election units had increased emissions of two percent since 1990, while their utilization increased by 28 percent during the same period.

Exceedance of compliance goals translates into additional environmental and health benefits. For example, the greater and earlier reductions of SO₂ have resulted in a 10 - 25 percent drop in rainfall acidity in the Northeast in 1995 through 1997 since the beginning of Phase I.⁷

One factor mitigating the benefit of the overcompliance in the SO₂ program, of course, is the ability to use banked allowances in the future. The 40 percent of 1995 allowances, 35 percent of 1996 allowances, 23 percent of 1997 allowances, 24 percent of 1998 allowances, and 29 percent of 1999 allowances that were not retired for compliance purposes can be used to cover emissions in a later year. However, receiving health and environmental benefits earlier may be of greater value than receiving those benefits several years from now.

The NO_x program, based on the more traditional rate-based approach, offers less flexibility and displays a lesser degree of overcompliance. It requires each unit to achieve reductions or, at a minimum, for a group of units to achieve an average emission rate equal to or lower than their individual limits. This approach does not allow emission reductions in one year to be used in another year, and as a result, the incentive to overcomply is diminished.

The pattern and certainty of emissions reductions over time will also differ between the two programs. Beginning in the year 2000 when both programs are in full implementation, SO₂ emissions are expected to decline steadily toward the emissions cap level of 8.95 million tons, whereas NO_x emissions, in the absence of an emissions cap, are expected to rise as existing sources are utilized more and new sources, which are not required to offset their emissions, are built and operated.

Despite these differences, both the SO₂ and NO_x components of the Acid Rain Program were successful in Phase I. Through the continued efforts of Phase I participants and with additional reductions from Phase II units beginning in 2000, the long term goals of the Acid Rain Program -- a 10 million ton reduction of SO₂ emissions and two million ton reduction of NO_x emissions -- will be achieved.

⁷ Lynch, James A., Van C. Bowersox, and Jeffrey W. Grimm. 2000. "Changes in Sulfate Deposition in Eastern USA Following Implementation of Phase I of Title IV of the Clean Air Act Amendments of 1990." *Atmospheric Environment* 34: 1665-1680.

APPENDIX A: PHASE I AFFECTED (T) AND EARLY ELECTION (E) UNITS IN 1999

<u>ST</u>	<u>Plant Name</u>	<u>Unit ID</u>	<u>SO2</u>	<u>NOx</u>	<u>ST</u>	<u>Plant Name</u>	<u>Unit ID</u>	<u>SO2</u>	<u>NOx</u>
AL	Charles R Lowman	2		E	CO	Cherokee	3		E
		3		E			4		E
AL	Colbert	1	T	T	CO	Pawnee	1		E
		2	T	T					
		3	T	T	CO	Rawhide	101		E
		4	T	T					
		5	T	T	CO	Ray D Nixon	1		E
AL	E C Gaston	1	T	T	CO	Valmont	5		E
		2	T	T					
		3	T	T	CT	Bridgeport Harbor	BHB3		E
		4	T	T					
		5	T	T	FL	Big Bend	BB01	T	
							BB02	T	
AL	Gadsden	1	T	T			BB03	T	
		2	T	T			BB04	T	T
AR	Flint Creek	1		E	FL	C D McIntosh	3		E
AR	Independence	1		E	FL	Crist	4	T	T
		2		E			5	T	T
							6	T	T
AR	White Bluff	1		E			7	T	T
		2		E					
					FL	Crystal River	2		E
AZ	Apache	2		E			4		E
		3		E			5		E
AZ	Cholla	1		E	FL	Deerhaven	B2		E
		2		E					
		3		E	FL	St Johns River	1		E
		4		E			2		E
AZ	Coronado	U1B		E	FL	Scholz	1	T	T
		U2B		E			2	T	T
AZ	Navajo	1		E	FL	Seminole	1		E
		2		E			2		E
		3		E					
AZ	Springerville	1		E	GA	Arkwright	1	T	T
		2		E			2	T	T
							3	T	T
							4	T	T
COO	Craig	C1		E					
		C2		E	GA	Bowen	1BLR	T	T
		C3		E			2BLR	T	T
							3BLR	T	T
CO	Comanche	1		E			4BLR	T	T
		2		E					

APPENDIX A: PHASE I AFFECTED (T) AND EARLY ELECTION (E) UNITS IN 1999

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GA	Hammond	1	T	T	IA	George Neal South	4		E		
		2	T	T							
		3	T	T							
		4	T	T	IA	Lansing	4		E		
GA	Harlee Branch	1	T		IA	Louisa	101		E		
		2	T	T	IA	Milton L Kapp	2	T	T		
		3	T		IA	Ottumwa	1		E		
		4	T								
GA	Jack McDonough	MB1	T	T	IA	Prairie Creek	4	T	T		
		MB2	T	T	IA	Riverside	9	T	T		
GA	Kraft	1	T	T	IL	Baldwin	1	T			
		2	T	T			2	T			
		3	T	T			3	T	T		
GA	Mcintosh	1	T	T	IL	Coffeen	1	T			
GA	Mitchell	3	T	T			2	T			
GA	Scherer	3		T	IL	Crawford	7		E		
		4		E			8		E		
GA	Wansley	1	T	T	IL	Dallman	33		E		
		2	T	T			IL	Fisk	19		E
GA	Yates	Y1BR	T	T	IL	Grand Tower	7		T		
		Y2BR	T	T			8		T		
		Y3BR	T	T			9	T	T		
		Y4BR	T	T	IL	Havana	6	T			
		Y5BR	T	T			IL	Hennepin	1	T	
		Y6BR	T	T			2	T	T		
		Y7BR	T	T			IL	Hutsonville	5	T	T
IA	Ames	7		E	IL	Hutsonville	6	T	T		
		8		E							
IA	Burlington	1	T	T	IL	Joppa Steam	1	T	T		
IA	Council Bluffs	1		E	IL	Joppa Steam	2	T	T		
		2		E			3	T	T		
		3		E			4	T	T		
		11	T				5	T	T		
IA	George Neal North	1	T		IL	Kincaid	1	T			
		2		E			2	T			
		3		E							

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IL	Meredosia	1		T	IN	Frank E Ratts	1SG1	T	T
		2		T			2SG1	T	T
		3		T	IN	Gibson	1	T	T
		4		T			2	T	T
		5	T	T			3	T	T
IL	Newton	1	T	T	IN	H T Pritchard	4	T	T
		2		T			3		T
IL	Vermilion	1	T	T	IN	Michigan City	4		T
		2	T	T			5	T	T
							6	T	T
IL	Waukegan	7		E	IN	Merom	1SG1		E
		8		E			2SG1		E
IL	Will County	3		E	IN	Petersburg	12	T	
		4		E					
IL	Wood River	1	T		IN		1	T	T
IN	A B Brown	1		E	IN	R M Schahfer	2	T	T
		2		E			3		T
IN	Bailly	7	T		IN	R Gallagher	4		T
		8	T				15		E
IN	Breed	1	T		IN	Rockport	17		E
							18		E
IN	Cayuga	1	T	T	IN	State Line	1	T	T
		2	T	T			2	T	T
							3	T	T
							4	T	T
IN	Clifty Creek	1	T		IN	Tanners Creek	MB1		E
		2	T				MB2		E
		3	T						
		4	T		IN	Wabash River	3		E
		5	T				U4	T	
		6	T						
IN	Dean H Mitchell	4		E	IN	Warrick	1	T	T
		5		E			2	T	T
		6		E			3	T	T
		11		E			5	T	T
IN	Elmer W Stout	50	T	T	IN	Warrick	6	T	T
		60	T	T			1	T	
		70	T	T			2	T	
IN	F B Culley	2	T	T	IN	Warrick	3	T	
		3	T	T			4	T	

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IN	Whitewater Valley	1		E	KY	R D Green	G1	T	T		
		2		E			G2	T	T		
KS	La Cygne	1	T		KY	Shawnee	10	T			
		2		T							
KS	Nearman Creek	1		E	KY	Trimble County	1		E		
KS	Quindaro	2	T	T	KY	W C Dale	3		E		
							4		E		
KS	Riverton	39		E	LA	Big Cajun 2	2B1		E		
		40		E			2B2		E		
							2B3		E		
KY	Cane Run	4		E	LA	Dolet Hills	1		E		
		5		E							
		6		E							
KY	Coleman	C1	T	T	LA	R S Nelson	6		E		
		C2	T	T			LA	Rodemacher	2		E
		C3	T	T							
KY	Cooper	1	T	T	MA	Brayton Point	1	T			
		2	T	T			2	T			
KY	E W Brown	1	T	T	MA	Mount Tom	1	T			
		2	T	T			MD	C P Crane	1	T	
		3	T	T					2	T	
KY	East Bend	2	T	T	MD	Chalk Point	1	T	T		
							2	T	T		
							3	T			
KY	Elmer Smith	1	T		MD	Morgantown	1	T	T		
		2	T	T			2	T	T		
KY	Ghent	1	T	T	MD	R P Smith	9	T	T		
							11	T	T		
KY	H L Spurlock	1	T	T	MI	B C Cobb	4		E		
		2		E			5		E		
KY	Hmp&L Station 2	H1	T	T	MI	Dan E Karn	2	T			
		H2	T	T							
KY I	Mill Creek	1		E	MI	J B Sims	3		E		
		2		E							
		3		E			MI	J C Weadock	7	T	E
		4		E					8	T	E
KY	Paradise	3	T		MI	J H Campbell	1	T	T		
							2	T			

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MI	J R Whiting	1	T	E	MO	Sibley	1	T	
		2	T				2	T	
		3	T	E			3	T	
MI	Presque Isle	7		E	MO	Sioux	1	T	
		8		E			2	T	
		9		E					
MN	Clay Boswell	3		E	MO	Sikeston	1		E
					MO	Southwest	1	T	T
MN	High Bridge	3	T	T	MO	Thomas Hill	MB1	T	
		4	T	T			MB2	T	
		5	T	T			MB3	T	T
		6	T	T					
MN	Hoot Lake	2		E	MS	Jack Watson	4	T	T
							5	T	T
MN	Sherburne County	1	T	T	MS	R D Morrow	1	T	T
		2	T	T			2	T	T
MO	Asbury	1	T		MS	Victor J Daniel Jr	1		T
MO	Hawthorn	5	T	T			2		T
MO	Iatan	1		T	MT	Colstrip	1		E
							2		E
							3		E
MO	James River	3	T	T			4		E
		4	T	T					
		5	T	T					
MO	Labadie	1	T	T	MT	Lewis & Clark	B1		E
		2	T	T	NC	Buck	5		E
		3	T	T			6		E
		4	T	T			7		E
			8				E		
MO	Meramec	1	T	T			9		E
		2	T	T					
		3	T	T	NC	Cliffside	1		E
		4		T			2		E
			3				E		
			4				E		
MO	Montrose	1	T	T			5		E
		2	T	T					
		3	T	T					
MO	New Madrid	1	T		NC	Dan River	1		E
		2	T				2		E
							3		E
MO	Rush Island	1	T	T					
		2	T	T					

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NC	G G Allen	1		E	NY	C R Huntley	67		E		
		2		E			68		E		
		3		E							
		4		E			NY	Dunkirk	1		E
		5		E					2		E
NC	Marshall	1		E	NY	Greenidge	3	T	T		
		2		E			4	T	T		
		3		E			6	T	T		
		4		E							
NC	Riverbend	7		E	NY	Kintigh	1		E		
		8		E			NY	Milliken	1	T	T
		9		E					2	T	T
		10		E			NY	Northport	1	T	
ND	Antelope Valley	B1		E	2	T					
		B2		E	3	T					
					4	T					
ND	Leland Olds	1		E	NY	Port Jefferson	3	T			
ND	Stanton	10		E			4	T			
NE	Gerald Gentleman	1		E	NY	S A Carlson	9		E		
		2		E			10		E		
							11		E		
NE	Gerald Whelan	1		E			12		E		
NE	Nebraska City	1		E	OH	Acme	13	T			
							14	T			
NE	North Omaha	4		E			15	T			
							16	T			
NE	Platte	1		E			91	T			
							92	T			
NHE	Merrimack	1	T		OH	Ashatabula	7	T	T		
		2	T				8	T			
NJ	B L England	1	T				9	T			
		2	T				10	T			
							11	T			
NM	Escalante	1		E	OH	Avon Lake	9	T			
NV	Mohave	1		E			10	T			
		2		E			11	T			
NV	North Valmy	1		E	OH	Bay Shore	1	T			
		2		E			2	T			
NV	Reid Gardner	4		E			3	T			
							4	T			

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<u>ST</u>	<u>Plant Name</u>	<u>Unit ID</u>	<u>SO2</u>	<u>NOx</u>	<u>ST</u>	<u>Plant Name</u>	<u>Unit ID</u>	<u>SO2</u>	<u>NOx</u>		
OH	Cardinal	1	T		OH	Muskingum River	1	T			
		2	T				2	T			
OH	Conesville	3					3	T			
		4	T				4	T			
		5	T	T			5	T			
		6	T	T		OH	Niles	1	T		
		7	T	E	2			T			
				8	T	E					
OH	Eastlake	9	T	T	OH	Picway	9	T	T		
		10	T	T							
		11	T	T			OH	Poston	1	T	
		12	T	T					2	T	
		13	T	T					3	T	
		14	T								
OH	Edgewater	15	T		OH	R E Burger	1	T			
		16	T				2	T			
		17	T	T			3	T			
		18	T				4	T			
		19	T				5	T			
OH	Gen J M Gavin	20	T		OH	Toronto	6	T			
		21	T				7	T	T		
		22	T				8	T	T		
OH	Gorge	23	T	T	OH	Toronto	9	T			
		24	T	T			10	T	T		
OH	J M Stuart	25	T		OH	W H Sammis	5	T	T		
		26	T				6	T	T		
		27	T				7	T			
		28	T								
OH	Kyger Creek	29	T		OH	W H Zimmer	1		E		
		30	T								
		31	T				OH	Walter C Beckjord	5	T	T
		32	T						6	T	T
		33	T								
		34	T								
OH	Lake Shore	35	T		OK	Muskogee	4		E		
		36	T				5		E		
		37	T				6		E		
		38	T				OK	Northeastern	3313		E
		39	T						3314		E
OH	Miami Fort	40	T		OK	Sooner	1		E		
		41	T				2		E		
		42	T	T							
		43	T				OR	Boardman	1SG		E
		44	T								
		45	T								
				46			T		PA	Armstrong	1
		47	T	2	T	T					

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<u>ST</u>	<u>Plant Name</u>	<u>Unit ID</u>	<u>SO2</u>	<u>NOx</u>	<u>ST</u>	<u>Plant Name</u>	<u>Unit ID</u>	<u>SO2</u>	<u>NOx</u>
PA	Bruce Mansfield	1	T	T	PA	Shawville	1	T	T
		2	T	T			2	T	T
		3		E			3	T	T
							4	T	T
PA	Brunner Island	1	T	T	PA	Sunbury	3	T	T
		2	T	T			4	T	T
		3	T	T					
PA	Cheswick	1	T	T	PA	Titus	1		E
PA	Conemaugh	1	T	T			2		E
		2	T	T			3		E
PA	Cromby	1		E	SC	Cross	1		E
							2		E
PA	Eddystone	1		E	SC	W S Lee	1		E
		2		E			2		E
							3		E
PA	Hatfield's Ferry	1	T		TN	Allen	1	T	
		2	T				2	T	
		3	T				3	T	
PA	Homer City	1		E	TN	Cumberland	1	T	
		2		E			2	T	
		3		E					
PA	Keystone	1		E	TN	DuPont Johnsonville	JVD1	T	
		2		E			JVD2	T	
							JVD3	T	
PA	Martins Creek Cree	1	T	T			JVD4	T	
		2	T	T	TN	Gallatin	1	T	T
		3	T				2	T	T
		4	T				3	T	T
			4	T			T		
PA	Mitchell	33	T	T					
PA	Montour	1		E	TN	John Sevier	1		E
		2		E			2		E
							3		E
PA	New Castle	1	T	T			4		E
		2	T	T					
		3		E					
		4		E					
		5		E					
PA	Portland	1	T	T					
		2	T	T					

APPENDIX A: PHASE I AFFECTED (T) AND EARLY ELECTION (E) UNITS IN 1999

<u>ST</u>	<u>Plant Name</u>	<u>Unit ID</u>	<u>SO2</u>	<u>NOx</u>	<u>ST</u>	<u>Plant Name</u>	<u>Unit ID</u>	<u>SO2</u>	<u>NOx</u>	
TN	Johnsonville	1	T	T	TX	Tolk	171B		E	
		2	T	T			172B		E	
		3	T	T						
		4	T	T	TX	W A Parish	WAP5		E	
		5	T	T			WAP6		E	
		6	T	T			WAP7		E	
		7	T	T			WAP8		E	
		8	T	T						
		9	T	T	TX	Welsh	1		E	
		10	T	T			2		E	
			3				E			
TX	Big Brown	1		E						
		2		E	UT	Bonanza	1-1		E	
TX	Coletto Creek	1		E	UT	Carbon	1		E	
			2				E			
TX	Gibbons Creek	1		E	UT	Hunter	1		E	
							E			
TX	Harrington	061B		E			2		E	
		062B		E						
		063B		E	UT	Huntington	1		E	
TX	J K Spruce	XX1		E	UT	Intermountain	1SGA		E	
							E	2SGA		E
TX	J T Deely	1		E	VA	Chesapeake	1		E	
			2				E	2		E
TX	Limestone	LIM1		E	VA	Chesterfield	4		E	
		LIM2		E			3		E	
TX	Martin Lake	1		E	VA	Glen Lyn	4		E	
		2		E			51		E	
		3		E			52		E	
TX	Monticello	1		E	VA	Possum Point	3		E	
		2		E						
		3		E			VA	Potomac River	1	
TX	Oklaunion	1		E			2		E	
							E	3		E
							E	4		E
TX	Pirkey	1		E			5		E	
							E			
TX	Sam Seymour	1		E	VA	Yorktown	1		E	
		2		E			2		E	
		3		E						
TX	San Miguel	SM-1		E	WA	Centralia	BW21		E	
							E	BW22		E
TX	Sadow	4		E						

APPENDIX A: PHASE I AFFECTED (T) AND EARLY ELECTION (E) UNITS IN 1999

<u>ST</u>	<u>Plant Name</u>	<u>Unit ID</u>	<u>SO2</u>	<u>NOx</u>	<u>ST</u>	<u>Plant Name</u>	<u>Unit ID</u>	<u>SO2</u>	<u>NOx</u>		
WI	Alma	B1	T		WI	Weston	1	T	T		
		B2	T				2	T	T		
		B3	T				3		T		
		B4	T	T	WV	Albright	1	T	T		
		B5	T	T			2	T	T		
WI	Blount Street	8		E			3	T	T		
		9		E							
WI	Columbia	1		E	WV	Fort Martin	1	T	T		
		2		E			2	T			
WI	Edgewater	3	T		WV	Harrison	1	T	T		
		4	T				2	T	T		
		5		E			3	T	T		
WI	Genoa	1	T	T	WV	Kammer	1	T			
							2	T			
							3	T			
WI	J P Madgett	B1	T	T	WV	Mitchell	1	T	T		
WI	Nelson Dewey	1	T				2	T	T		
WI	North Oak Creek	2	T		WV	Mountaineer	1		E		
		3	T								
		4	T				WV	Mt Storm	1	T	T
									2	T	T
					3	T	T				
WI	Port Washington	1		T	WV	Pleasants	1		T		
		2		T			2		T		
		3		T	WV	Rivesville	7	T			
		4		T			8	T			
		5		T							
WI	Pulliam	5	T		WY	Dave Johnston	BW41		E		
		6	T				BW42		E		
		7	T	T	WY	Jim Bridger	BW71		T		
		8	T	T			BW72		T		
WI	Rock River	1	T				BW73		T		
		2	T				BW74		E		
WI	South Oak Creek	5	T	T	WY	Laramie River	1		E		
		6	T	T			2		E		
		7	T	T			3		E		
		8	T	T	WY	Wyodak	BW91		T		
WI	Valley	1									
		2		T							
		3		T							
		4		T							

APPENDIX B-1:

Table 1 Units Designating Substitution and Compensating Units for 1999

Substitution Units						
Table 1 Units			Substitution Units			
State	Plant Name	Units		State	Plant Name	Units
AL	EC Gaston	5	→	AL	Gadsden	1,2
FL	Big Bend	BB01, BB02, BB03	→	FL	Big Bend	BB04
FL	Crist	7	→	FL	Crist	4,5
				FL	Scholz	1,2
GA	Bowen	1BLR	→	GA	Harlee Branch	1
GA	Bowen	2BLR	→	GA	Harlee Branch	2
GA	Bowen	3BLR	→	GA	Harlee Branch	3
GA	Bowen	4BLR	→	GA	Harlee Branch	4
GA	Hammond	1	→	GA	Arkwright	1
GA	Hammond	2	→	GA	Arkwright	2
GA	Hammond	3	→	GA	Arkwright	3
GA	Hammond	4	→	GA	Arkwright	4
GA	Jack Mcdonough	MB2	→	GA	Mitchell	3
GA	Yates	Y2BR	→	GA	Kraft	1
GA	Yates	Y3BR	→	GA	Kraft	2
GA	Yates	Y4BR	→	GA	Kraft	3
GA	Yates	Y5BR	→	GA	McIntosh	1
IL	Baldwin	3	→	IL	Havana	6
				IL	Wood River	1
IL	Hennepin	2	→	IL	Hennepin	1
IL	Meredosia	5	→	IL	Hutonsville	5,6
				IL	Newton	1,2
IL	Vermilion	2	→	IL	Vermilion	1

APPENDIX B-1:

Table 1 Units Designating Substitution and Compensating Units for 1999

Substitution Units						
Table 1 Units			Substitution Units			
<u>State</u>	<u>Plant Name</u>	<u>Units</u>		<u>State</u>	<u>Plant Name</u>	<u>Units</u>
IN	Petersburg	1,2	→	IN	H T Pritchard	5
KY	Coleman	C1, C2	→	KY	R D Green	G1, G2
MD	C P Crane	2	→	MS	R D Morrow	1,2
MD	Morgantown	1,2	→	MD	Chalk Point	3
MI	J H Campbell	1,2	→	MI	Dan E Karn	2
				MI	J R Whiting	1,2,3
				MI	J C Weadlock	7,8
MN	High Bridge	6	→	MN	High Bridge	3,4,5
				MN	Sherburne County	1,2
MO	James River	5	→	MO	James River	3,4
				MO	Southwest	1
MO	Labadie	1,2,3,4	→	MO	Meramec	1,2,3
				MO	Rush Island	1,2
MO	Montrose	1,2,3	→	MO	Hawthorn	5
MO	Sioux	1,2	→	KS	La Cygne	1
MO	Sibley	3	→	MO	Sibley	1,2
MO	Thomas Hill	MB1, MB2	→	MO	Thomas Hill	MB3
NH	Merrimack	1,2	→	MA	Mount Tom	1

APPENDIX B-1:

Table 1 Units Designating Substitution and Compensating Units for 1999

Substitution Units						
Table 1 Units			Substitution Units			
<u>State</u>	<u>Plant Name</u>	<u>Units</u>		<u>State</u>	<u>Plant Name</u>	<u>Units</u>
NY	Northport	1,2,3	→	NY	Northport	4
OH	Ashtabula	7	→	OH	Acme	13,14,15,16,91,92
				OH	Ashtabula	8,9,10,11
				OH	Lake Shore	18,91,92,93,94
				OH	Bay Shore	1,2,3,4
OH	Avon Lake	12	→	OH	Avon Lake	9,10
OH	Conesville	4	→	OH	J M Stuart	1,2,3,4
OH	Edgewater	13	→	OH	Edgewater	11,12
OH	Niles	1,2		OH	R E Burger	1,2,3,4
OH	R E Burger	5,6,7,8		OH	Gorge	25, 26
OH	W H Sammis	5,6,7		OH	Toronto	9,10,11
				PA	Bruce Mansfield	1,2
				PA	New Castle	1,2
OH	Miami Fort	7	→	KY	East Bend	2
OH	Picway	9	→	OH	Poston	1,2,3
PA	Armstrong	1	→	WV	Albright	1
PA	Armstrong	2	→	WV	Albright	2
PA	Hatfield's Ferry	3	→	PA	Mitchell	33
PA	Martin's Creek	1,2	→	PA	Martin's Creek	3,4
WI	Edgewater	4	→	WI	Edgewater	3
WI	Genoa	1	→	WI	Alma	B4, B5
				WI	J P Madgett	B1
WI	Nelson Dewey	1,2	→	WI	Rock River	1,2
WI	Pulliam	8	→	WI	Pulliam	5,6,7
				WI	Weston	1,2
WV	Albright	3	→	MD	R P Smith	9

APPENDIX B-1:

Table 1 Units Designating Substitution and Compensating Units for 1999

Substitution Units

Table 1 Units			Substitution Units		
State	Plant Name	Units	State	Plant Name	Units
WV	Fort Martin	2	MD	R P Smith	11
WV	Harrison	1	WV	Rivesville	7,8

Compensating Units

Table 1 Units			Compensating Units		
State	Plant Name	Units	State	Plant Name	Units
OH	Edgewater	13	MA	Brayton Point	1,2

**APPENDIX B-2: 2000 DEDUCTION FOR EXCEEDING 1999 PHASE I EXTENSION
PROJECTED EMISSIONS LIMITATION**

State	Plant Name	Unit ID	Ph I Ext Type	2000 Allowance Deduction
AL	Colbert	5	TRANSFER	0
FL	Crist	7	TRANSFER	0
GA	Jack McDonough	MB1	TRANSFER	0
GA	Wanslev	2	TRANSFER	0
GA	Yates	Y1BR	CONTROL	0
GA	Yates	Y6BR	TRANSFER	0
GA	Yates	Y7BR	TRANSFER	0
IN	Bailly	7	CONTROL	0
IN	Bailly	8	CONTROL	0
IN	Cavuga	1	TRANSFER	0
IN	Cavuga	2	TRANSFER	0
IN	Gibson	4	CONTROL	6734
IN	Michigan Citv	12	TRANSFER	0
IN	R Gallagher	1	TRANSFER	0
IN	R Gallagher	2	TRANSFER	0
IN	R Gallagher	3	TRANSFER	0
IN	R Gallagher	4	TRANSFER	0
IN	Wabash River	1	CONTROL	0
IN	Wabash River	2	TRANSFER	642
IN	Wabash River	5	TRANSFER	0
IN	Wabash River	6	TRANSFER	3659
KY	Coleman	C1	TRANSFER	0
KY	Coleman	C2	TRANSFER	0
KY	Coleman	C3	TRANSFER	0
KY	E W Brown	2	TRANSFER	0
KY	E W Brown	3	TRANSFER	0
KY	Ghent	1	CONTROL	0
KY	Green River	5	TRANSFER	0
KY	Hmp&L Station 2	H1	CONTROL	1061
KY	Hmp&L Station 2	H2	CONTROL	1712
KY	Paradise	3	TRANSFER	0
MD	C P Crane	1	TRANSFER	0
MD	Chalk Point	1	TRANSFER	0
MD	Morgantown	1	TRANSFER	8669
MD	Morgantown	2	TRANSFER	0
NJ	B L England	1	TRANSFER	0
NJ	B L England	2	CONTROL	0
OH	Cardinal	1	TRANSFER	0
OH	Conesville	1	TRANSFER	0
OH	Conesville	3	TRANSFER	0
OH	Eastlake	5	TRANSFER	0
OH	Gen J M Gavin	1	CONTROL	0
OH	Gen J M Gavin	2	CONTROL	0
OH	Muskingum River	1	TRANSFER	0
OH	Muskingum River	2	TRANSFER	0
OH	Muskingum River	3	TRANSFER	0
OH	Muskingum River	4	TRANSFER	0
OH	Niles	1	TRANSFER	0
OH	Niles	2	TRANSFER	0
OH	Picwav	9	TRANSFER	0
OH	R E Burger	5	TRANSFER	0
OH	R E Burger	6	TRANSFER	0
OH	R E Burger	7	TRANSFER	0
OH	R E Burger	8	TRANSFER	0
PA	Armstrong	1	TRANSFER	0
PA	Brunner Island	2	TRANSFER	0
PA	Brunner Island	3	TRANSFER	0
PA	Conemaugh	1	CONTROL	0
PA	Conemaugh	2	CONTROL	0
PA	Hatfield's Ferrv	1	TRANSFER	0
PA	Hatfield's Ferrv	2	TRANSFER	0
PA	Hatfield's Ferrv	3	TRANSFER	0
PA	Portland	1	TRANSFER	0
PA	Portland	2	TRANSFER	0
PA	Sunburv	3	TRANSFER	0
PA	Sunburv	4	TRANSFER	0
TN	Cumberland	1	CONTROL	0
TN	Cumberland	2	CONTROL	0
TN	Gallatin	1	TRANSFER	0
TN	Gallatin	2	TRANSFER	0

**APPENDIX B-2: 2000 DEDUCTION FOR EXCEEDING 1999 PHASE I EXTENSION
PROJECTED EMISSIONS LIMITATION**

State	Plant Name	Unit ID	Ph I Ext Type	2000 Allowance Deduction
TN	Gallatin	3	TRANSFER	0
TN	Gallatin	4	TRANSFER	0
WV	Fort Martin	1	TRANSFER	0
WV	Fort Martin	2	TRANSFER	0
WV	Harrison	1	CONTROL	0
WV	Harrison	2	CONTROL	0
WV	Harrison	3	CONTROL	0
WV	Mt Storm	1	TRANSFER	0
WV	Mt Storm	2	TRANSFER	0
WV	Mt Storm	3	CONTROL	0

APPENDIX B-3: EMISSIONS AND UTILIZATION OF PHASE I UNITS FOR 1998 AND 1999

State	Plant Name	Stack/Unit ID	Unit Type	1998		1999		Percent Change, 1998-1999	
				SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)
AL	Colbert	CSCO14 (1, 2, 3, 4)			26,653		22,601		-15.20%
AL	Colbert	1	Table1	13,688,471		12,943,613		-5.44%	
AL	Colbert	2	Table1	11,842,057		13,543,511		14.37%	
AL	Colbert	3	Table1	11,608,467		12,242,925		5.47%	
AL	Colbert	4	Table1	10,521,841		10,357,632		-1.56%	
AL	Colbert	5	Table1	27,619,312	47,608	26,136,552	46,972	-5.37%	-1.34%
AL	E C Gaston	CS0CAN (1, 2)			25,864		29,118		12.58%
AL	E C Gaston	1	Table1	16,687,420		19,395,339		16.23%	
AL	E C Gaston	2	Table1	16,356,089		15,425,345		-5.69%	
AL	E C Gaston	CS0CBN (3, 4)			25,669		28,502		11.04%
AL	E C Gaston	3	Table1	18,250,153		19,463,758		6.65%	
AL	E C Gaston	4	Table1	16,100,133		17,436,563		8.30%	
AL	E C Gaston	5	Table1	55,502,484	41,489	55,088,509	43,508	-0.75%	4.87%
AL	Gadsden	1	Substitution	3,411,299	4,751	3,203,864	4,242	-6.08%	-10.71%
AL	Gadsden	2	Substitution	3,271,925	4,463	3,083,316	4,289	-5.76%	-3.90%
FL	Big Bend	XS12 (BB01, BB02)			90,881		80,704		-11.20%
FL	Big Bend	BB01	Table1	26,361,877		24,289,751		-7.86%	
FL	Big Bend	BB02	Table1	25,476,465		24,843,034		-2.49%	
FL	Big Bend	XS23 (BB03, BB04)			16,544		14,910		-9.88%
FL	Big Bend	BB03	Table1	26,111,060		22,280,740		-14.67%	
FL	Big Bend	BB04	Substitution	36,267,261		29,950,140		-17.42%	
FL	Crist	4	Substitution	4,108,663	3,255	4,655,839	3,329	13.32%	2.27%
FL	Crist	5	Substitution	5,008,436	3,872	3,438,040	2,391	-31.36%	-38.25%
FL	Crist	6	Table1	18,656,237	14,461	18,654,562	13,233	-0.01%	-8.49%
FL	Crist	7	Table1	35,964,652	29,005	35,766,644	26,748	-0.55%	-7.78%
FL	Scholz	1	Substitution	1,583,869	1,877	2,268,731	1,557	43.24%	-17.05%
FL	Scholz	2	Substitution	2,415,353	2,877	2,483,103	1,733	2.80%	-39.76%
GA	Arkwright	CS001 (1, 2, 3, 4)			4,272		4,089		-4.28%
GA	Arkwright	1	Substitution	1,138,948		956,636		-16.01%	
GA	Arkwright	2	Substitution	1,048,245		1,093,075		4.28%	
GA	Arkwright	3	Substitution	1,220,110		1,340,936		9.90%	
GA	Arkwright	4	Substitution	797,426		1,302,409		63.33%	
GA	Bowen	1BLR	Table1	46,331,230	34,016	40,516,647	28,631	-12.55%	-15.83%
GA	Bowen	2BLR	Table1	37,829,783	28,130	47,588,155	34,348	25.80%	22.10%
GA	Bowen	3BLR	Table1	63,956,453	47,897	51,726,332	37,294	-19.12%	-22.14%
GA	Bowen	4BLR	Table1	47,544,565	35,108	56,716,400	39,881	19.29%	13.60%
GA	Hammond	CS001 (1, 2, 3)			9,842		10,346		5.12%
GA	Hammond	1	Table1	4,057,785		5,405,746		33.22%	
GA	Hammond	2	Table1	5,257,052		4,903,152		-6.73%	
GA	Hammond	3	Table1	4,656,394		4,332,311		-6.96%	
GA	Hammond	4	Table1	18,223,752	13,217	28,036,147	19,579	53.84%	48.13%
GA	Harlee Branch	CS001 (1, 2)			32,342		28,996		-10.35%
GA	Harlee Branch	1	Substitution	13,350,533		13,400,598		0.38%	
GA	Harlee Branch	2	Substitution	16,451,112		13,491,886		-17.99%	
GA	Harlee Branch	CS002 (3, 4)			56,643		48,692		-14.04%

APPENDIX B-3: EMISSIONS AND UTILIZATION OF PHASE I UNITS FOR 1998 AND 1999

State	Plant Name	Stack/Unit ID	Unit Type	1998		1999		Percent Change, 1998-1999	
				SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)
GA	Harllee Branch	3	Substitution	24,716,035		22,932,668		-7.22%	
GA	Harllee Branch	4	Substitution	28,122,964		24,325,002		-13.50%	
GA	Jack Mcdonough	CS001 (MB1, MB2)			28,516		24,212		-15.09%
GA	Jack Mcdonough	MB1	Table1	16,039,404		15,633,200		-2.53%	
GA	Jack Mcdonough	MB2	Table1	19,355,611		14,883,963		-23.10%	
GA	Kraft	CS001 (1, 2, 3)			5,906		6,759		14.44%
GA	Kraft	1	Substitution	2,430,615		2,586,590		6.42%	
GA	Kraft	2	Substitution	1,960,136		2,979,207		51.99%	
GA	Kraft	3	Substitution	4,977,302		6,125,772		23.07%	
GA	Mcintosh	1	Substitution	7,791,088	6,716	7,499,008	6,182	-3.75%	-7.95%
GA	Mitchell	3	Substitution	4,595,267	4,621	4,621,450	4,430	0.57%	-4.13%
GA	Wansley	1	Table1	49,668,355	44,760	51,825,369	43,290	4.34%	-3.28%
GA	Wansley	2	Table1	48,149,781	42,489	45,235,063	37,418	-6.05%	-11.93%
GA	Yates	Y1BR	Table1	3,531,547	131	4,575,331	179	29.56%	36.64%
GA	Yates	CS001 (Y2BR, Y3BR)			6,865		7,191		4.75%
GA	Yates	Y2BR	Table1	4,503,564		5,696,913		26.50%	
GA	Yates	Y3BR	Table1	3,787,505		4,695,297		23.97%	
GA	Yates	CS002 (Y4BR, Y5BR)			9,136		8,588		-6.00%
GA	Yates	Y4BR	Table1	6,401,735		5,726,354		-10.55%	
GA	Yates	Y5BR	Table1	4,344,893		6,821,224		56.99%	
GA	Yates	Y6BR	Table1	13,969,410	11,192	14,029,905	9,001	0.43%	-19.58%
GA	Yates	Y7BR	Table1	15,552,726	12,150	15,927,124	10,447	2.41%	-14.02%
IA	Burlington	1	Table1	11,743,015	5,847	13,326,811	6,502	13.49%	11.20%
IA	Des Moines	11	Table1	0	0	0	0	0.00%	0.00%
IA	George Neal North	1	Table1	9,767,070	3,974	9,089,694	3,420	-6.94%	-13.94%
IA	Milton L. Kapp	2	Table1	12,293,176	5,282	11,001,299	4,437	-10.51%	-16.00%
IA	Prairie Creek	4	Table1	10,102,922	4,035	10,107,574	3,773	0.05%	-6.49%
IA	Riverside	9	Table1	6,283,598	1,435	5,936,674	1,879	-5.52%	30.94%
IL	Baldwin	1	Table1	27,377,162	71,396	25,862,726	65,231	-5.53%	-8.63%
IL	Baldwin	2	Table1	35,735,840	92,968	36,155,350	91,310	1.17%	-1.78%
IL	Baldwin	3	Table1	46,260,316	120,253	34,819,083	88,703	-24.73%	-26.24%
IL	Coffeen	CS0001 (1, 2)			49,413		47,611		-3.65%
IL	Coffeen	1	Table1	12,847,399		17,489,341		36.13%	
IL	Coffeen	2	Table1	28,483,817		27,231,154		-4.40%	
IL	Grand Tower	9	Table1	3,949,534	9,188	3,175,149	6,813	-19.61%	-25.85%
IL	Havana	6	Substitution	61,257	29	84,268	28	37.56%	-3.45%
IL	Hennepin	CS3 (1, 2)			46,809		27,532		-41.18%
IL	Hennepin	1	Substitution	3,345,169		3,841,714		14.84%	
IL	Hennepin	2	Table1	15,865,737		12,303,540		-22.45%	
IL	Hutsonville	5	Substitution	2,449,651	5,238	2,384,627	5,189	-2.65%	-0.94%
IL	Hutsonville	6	Substitution	2,476,690	5,666	2,503,864	5,463	1.10%	-3.58%
IL	Joppa Steam	CS1 (1, 2)			8,280		7,627		-7.89%
IL	Joppa Steam	1	Table1	16,642,916		14,362,052		-13.70%	
IL	Joppa Steam	2	Table1	16,895,957		16,222,770		-3.98%	
IL	Joppa Steam	CS2 (3, 4)			7,937		7,952		0.19%

APPENDIX B-3: EMISSIONS AND UTILIZATION OF PHASE I UNITS FOR 1998 AND 1999

State	Plant Name	Stack/Unit ID	Unit Type	1998		1999		Percent Change, 1998-1999	
				SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)
IL	Joppa Steam	3	Table1	16,246,827		15,836,007		-2.53%	
IL	Joppa Steam	4	Table1	15,657,774		15,627,050		-0.20%	
IL	Joppa Steam	CS3 (5, 6)			7,636		8,165		6.93%
IL	Joppa Steam	5	Table1	16,131,320		16,107,187		-0.15%	
IL	Joppa Steam	6	Table1	14,904,104		16,183,167		8.58%	
IL	Kincaid	CS0102 (1, 2)			46,417		19,867		-57.20%
IL	Kincaid	1	Table1	18,743,889		31,384,634		67.44%	
IL	Kincaid	2	Table1	30,554,552		23,830,039		-22.01%	
IL	Meredosia	5	Table1	8,114,710	10,941	10,944,500	12,450	34.87%	13.79%
IL	Newton	1	Substitution	30,901,900	7,508	41,277,526	9,935	33.58%	32.33%
IL	Vermilion	CS3 (1, 2)			12,220		10,833		-11.35%
IL	Vermilion	1	Substitution	3,484,888		3,268,808		-6.20%	
IL	Vermilion	2	Table1	5,717,555		5,605,084		-1.97%	
IL	Wood River	1	Substitution	475,387	1	318,431	0	-33.02%	-100.00%
IN	Bailly	XS12 (7, 8)			4,334		3,813		-12.02%
IN	Bailly	7	Table1	10,663,125		12,681,533		18.93%	
IN	Bailly	8	Table1	21,683,417		21,611,162		-0.33%	
IN	Breed	1	Table1	0	0	0	0	0.00%	0.00%
IN	Cayuga	1	Table1	36,106,576	51,345	29,784,383	38,153	-17.51%	-25.69%
IN	Cayuga	2	Table1	24,672,500	37,593	32,916,838	45,309	33.42%	20.53%
IN	Clifty Creek	CS001 (1, 2, 3)			46,294		26,131		-43.55%
IN	Clifty Creek	1	Table1	15,187,611		14,250,422		-6.17%	
IN	Clifty Creek	2	Table1	15,722,352		13,829,890		-12.04%	
IN	Clifty Creek	3	Table1	16,620,156		14,254,172		-14.24%	
IN	Clifty Creek	CS002 (4, 5, 6)			42,899		26,545		-38.12%
IN	Clifty Creek	4	Table1	15,129,975		14,347,485		-5.17%	
IN	Clifty Creek	5	Table1	15,465,474		14,919,136		-3.53%	
IN	Clifty Creek	6	Table1	11,649,523		15,082,320		29.47%	
IN	Elmer W Stout	50	Table1	6,373,331	6,638	7,716,376	7,967	21.07%	20.02%
IN	Elmer W Stout	60	Table1	6,765,079	7,392	7,104,368	7,812	5.02%	5.68%
IN	Elmer W Stout	70	Table1	24,602,220	25,931	27,163,753	28,801	10.41%	11.07%
IN	F B Culley	XS23 (2, 3)			7,687		8,634		12.32%
IN	F B Culley	2	Table1	7,665,616		7,733,260		0.88%	
IN	F B Culley	3	Table1	24,969,662		22,066,761		-11.63%	
IN	Frank E Ratts	1SG1	Table1	8,756,973	9,236	5,598,320	6,136	-36.07%	-33.56%
IN	Frank E Ratts	2SG1	Table1	8,486,975	9,393	9,725,809	11,044	14.60%	17.58%
IN	Gibson	CS0003 (1, 2)			94,431		84,282		-10.75%
IN	Gibson	1	Table1	42,521,424		47,059,174		10.67%	
IN	Gibson	2	Table1	39,961,024		43,412,460		8.64%	
IN	Gibson	XS34 (3, 4)			51,189		56,662		10.69%
IN	Gibson	3	Table1	35,238,356		41,312,568		17.24%	
IN	Gibson	4	Table1	48,852,984		47,769,475		-2.22%	
IN	H T Pritchard	CS596 (5, 6)			7,512		9,133		21.58%
IN	H T Pritchard	5	Substitution	2,725,130		2,797,197		2.64%	
IN	H T Pritchard	6	Table1	5,325,128		6,165,568		15.78%	

APPENDIX B-3: EMISSIONS AND UTILIZATION OF PHASE I UNITS FOR 1998 AND 1999

State	Plant Name	Stack/Unit ID	Unit Type	1998		1999		Percent Change, 1998-1999	
				SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)
IN	Michigan City	12	Table1	28,722,177	16,672	24,416,874	10,512	-14.99%	-36.95%
IN	Petersburg	1	Table1	16,853,716	2,247	14,887,120	2,202	-11.67%	-2.00%
IN	Petersburg	2	Table1	32,849,989	4,136	31,640,108	4,945	-3.68%	19.56%
IN	R Gallagher	CS0001 (1, 2)			22,954		24,027		4.67%
IN	R Gallagher	1	Table1	6,484,783		7,555,385		16.51%	
IN	R Gallagher	2	Table1	8,078,498		7,205,560		-10.81%	
IN	R Gallagher	CS0002 (3, 4)			27,642		25,850		-6.48%
IN	R Gallagher	3	Table1	9,757,824		7,904,914		-18.99%	
IN	R Gallagher	4	Table1	8,730,732		8,295,461		-4.99%	
IN	Tanners Creek	U4	Table1	21,095,772	32,017	32,193,717	34,708	52.61%	8.40%
IN	Wabash River	1	Table1	10,195,928	851	7,004,060	461	-31.31%	-45.83%
IN	Wabash River	CS005 (2, 3, 5, 6)			48,580		49,210		1.30%
IN	Wabash River	2	Table1	5,345,939		5,320,471		-0.48%	
IN	Wabash River	3	Table1	5,574,897		3,366,728		-39.61%	
IN	Wabash River	5	Table1	6,735,426		5,016,853		-25.52%	
IN	Wabash River	6	Table1	18,378,868		18,221,805		-0.85%	
IN	Warrick	XS123 (1, 2, 3)			78,964		83,243		5.42%
IN	Warrick	1	Opt-In	12,261,983		11,529,866		-5.97%	
IN	Warrick	2	Opt-In	12,265,399		13,478,104		9.89%	
IN	Warrick	3	Opt-In	12,241,810		13,388,356		9.37%	
IN	Warrick	4	Table1	18,411,332	34,078	22,001,632	36,413	19.50%	6.85%
KS	La Cygne	1	Substitution	34,557,496	6,319	47,751,036	10,906	38.18%	72.59%
KS	Quindaro	2	Table1	6,966,804	2,985	7,717,137	2,411	10.77%	-19.23%
KY	Coleman	C1	Table1	10,837,598	13,908	9,454,607	11,138	-12.76%	-19.92%
KY	Coleman	C2	Table1	7,993,759	9,677	11,006,016	12,879	37.68%	33.09%
KY	Coleman	C3	Table1	11,281,190	14,568	11,332,658	13,420	0.46%	-7.88%
KY	Cooper	CS1 (1, 2)			17,613		19,882		12.88%
KY	Cooper	1	Table1	6,162,103		6,790,255		10.19%	
KY	Cooper	2	Table1	12,814,633		13,586,572		6.02%	
KY	E W Brown	1	Table1	6,033,395	6,762	5,957,448	7,051	-1.26%	4.27%
KY	E W Brown	CS003 (2, 3)			35,473		38,513		8.57%
KY	E W Brown	2	Table1	10,629,369		9,673,102		-9.00%	
KY	E W Brown	3	Table1	22,188,450		24,995,749		12.65%	
KY	East Bend	2	Substitution	41,851,087	13,064	47,901,080	18,096	14.46%	38.52%
KY	Elmer Smith	XS12 (1, 2)			7,011		8,402		19.84%
KY	Elmer Smith	1	Table1	10,447,080		11,055,201		5.82%	
KY	Elmer Smith	2	Table1	21,192,016		21,616,916		2.01%	
KY	Ghent	1	Table1	39,524,506	7,396	38,957,054	6,452	-1.44%	-12.76%
KY	Green River	5	Table1	6,883,122	14,438	6,090,354	11,122	-11.52%	-22.97%
KY	H L Spurlock	1	Table1	21,451,848	14,941	22,882,357	16,444	6.67%	10.06%
KY	Hmp&L Station 2	H1	Table1	12,326,347	2,397	11,604,941	2,560	-5.85%	6.80%
KY	Hmp&L Station 2	H2	Table1	12,467,753	2,130	13,603,299	3,246	9.11%	52.39%
KY	Paradise	3	Table1	59,456,328	126,946	65,709,524	145,724	10.52%	14.79%
KY	R D Green	G1	Substitution	19,256,597	1,828	17,055,276	2,544	-11.43%	39.17%
KY	R D Green	G2	Substitution	16,646,528	2,136	18,192,091	2,300	9.28%	7.68%

APPENDIX B-3: EMISSIONS AND UTILIZATION OF PHASE I UNITS FOR 1998 AND 1999

State	Plant Name	Stack/Unit ID	Unit Type	1998		1999		Percent Change, 1998-1999	
				SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)
KY	Shawnee	10	Table1	7,598,398	1,560	6,330,697	1,597	-16.68%	2.37%
MA	Brayton Point	1	Compensating	17,886,343	9,739	18,653,762	10,328	4.29%	6.05%
MA	Brayton Point	2	Compensating	18,403,534	9,744	17,930,549	10,030	-2.57%	2.94%
MA	Mount Tom	1	Substitution	10,400,402	8,417	10,409,818	7,172	0.09%	-14.79%
MD	C P Crane	1	Table1	12,220,342	15,224	11,048,746	12,942	-9.59%	-14.99%
MD	C P Crane	2	Table1	10,972,712	13,636	15,139,746	18,121	37.98%	32.89%
MD	Chalk Point	CSE12 (1, 2)			44,721		45,450		1.63%
MD	Chalk Point	1	Table1	23,306,258		25,083,406		7.63%	
MD	Chalk Point	2	Table1	21,586,648		24,512,463		13.55%	
MD	Chalk Point	3	Substitution	17,351,546	7,732	19,066,892	7,898	9.89%	2.15%
MD	Morgantown	1	Table1	33,077,778	34,953	37,938,653	41,194	14.70%	17.86%
MD	Morgantown	2	Table1	43,364,798	44,953	32,452,376	34,325	-25.16%	-23.64%
MD	R P Smith	9	Substitution	152,062	117	175,810	133	15.62%	13.68%
MD	R P Smith	11	Substitution	2,977,734	2,262	3,581,919	2,664	20.29%	17.77%
MI	Dan E Karn	2	Substitution	13,176,629	8,426	16,529,722	10,282	25.45%	22.03%
MI	J C Weadock	CS0009 (7, 8)			12,330		10,701		-13.21%
MI	J C Weadock	7	Substitution	11,669,816		9,008,727		-22.80%	
MI	J C Weadock	8	Substitution	11,474,188		12,791,726		11.48%	
MI	J H Campbell	CS0009 (1, 2)			22,693		24,089		6.15%
MI	J H Campbell	1	Table1	13,474,893		17,949,073		33.20%	
MI	J H Campbell	2	Table1	24,729,551		23,950,447		-3.15%	
MI	J R Whiting	1	Substitution	6,127,827	3,940	7,071,532	3,835	15.40%	-2.66%
MI	J R Whiting	2	Substitution	7,251,809	4,561	7,721,975	4,090	6.48%	-10.33%
MI	J R Whiting	3	Substitution	7,786,674	4,755	9,344,917	4,925	20.01%	3.58%
MN	High Bridge	CS0001 (3, 4, 5, 6)			4,044		3,482		-13.90%
MN	High Bridge	3	Substitution	1,553,609		989,385		-36.32%	
MN	High Bridge	4	Substitution	1,543,292		1,614,894		4.64%	
MN	High Bridge	5	Substitution	7,083,980		5,593,372		-21.04%	
MN	High Bridge	6	Table1	10,753,526		8,615,703		-19.88%	
MN	Sherburne County	CS1 (1, 2)			8,958		10,756		20.07%
MN	Sherburne County	1	Substitution	43,745,696		44,597,306		1.95%	
MN	Sherburne County	2	Substitution	50,587,266		53,564,282		5.88%	
MO	Asbury	1	Table1	12,859,011	8,212	13,164,172	8,046	2.37%	-2.02%
MO	Hawthorn	5	Substitution	20,633,908	7,106	2,624,153	821	-87.28%	-88.45%
MO	James River	3	Substitution	3,121,544	1,409	3,099,540	1,001	-0.70%	-28.96%
MO	James River	4	Substitution	3,737,611	1,708	4,501,874	1,438	20.45%	-15.81%
MO	James River	5	Table1	5,934,107	2,810	8,057,047	2,588	35.78%	-7.90%
MO	Labadie	1	Table1	42,347,449	15,654	39,840,374	10,184	-5.92%	-34.94%
MO	Labadie	2	Table1	34,534,886	12,987	44,817,914	10,959	29.78%	-15.62%
MO	Labadie	3	Table1	40,580,655	14,602	35,440,211	9,033	-12.67%	-38.14%
MO	Labadie	4	Table1	39,516,498	14,354	32,026,366	8,605	-18.95%	-40.05%
MO	Meramec	1	Substitution	4,991,896	1,670	7,116,930	1,897	42.57%	13.59%
MO	Meramec	2	Substitution	4,792,250	1,541	7,057,121	1,798	47.26%	16.68%
MO	Meramec	3	Substitution	6,900,132	3,706	8,901,583	3,902	29.01%	5.29%
MO	Montrose	1	Table1	11,013,403	4,072	10,737,171	2,644	-2.51%	-35.07%

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State	Plant Name	Stack/Unit ID	Unit Type	1998		1999		Percent Change, 1998-1999	
				SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)
MO	Montrose	CS023 (2, 3)			8,875		7,025		-20.85%
MO	Montrose	2	Table1	10,380,984		12,714,292		22.48%	
MO	Montrose	3	Table1	11,783,069		11,602,632		-1.53%	
MO	New Madrid	1	Table1	42,006,552	8,735	45,150,430	9,570	7.48%	9.56%
MO	New Madrid	2	Table1	46,640,504	9,018	34,610,571	6,863	-25.79%	-23.90%
MO	Rush Island	1	Substitution	40,512,757	13,485	36,010,237	12,653	-11.11%	-6.17%
MO	Rush Island	2	Substitution	42,312,616	13,924	42,175,356	14,543	-0.32%	4.45%
MO	Sibley	CS0001 (1, 2, 3)			27,056		26,183		-3.23%
MO	Sibley	1	Substitution	3,195,388		3,387,394		6.01%	
MO	Sibley	2	Substitution	3,125,667		3,180,319		1.75%	
MO	Sibley	3	Table1	26,076,510		26,234,888		0.61%	
MO	Sioux	1	Table1	24,814,785	18,885	28,960,864	25,148	16.71%	33.16%
MO	Sioux	2	Table1	30,562,053	23,062	23,062,994	18,624	-24.54%	-19.24%
MO	Southwest	1	Substitution	16,707,842	6,837	15,623,175	3,538	-6.49%	-48.25%
MO	Thomas Hill	MB1	Table1	15,127,247	3,080	14,575,377	3,139	-3.65%	1.92%
MO	Thomas Hill	MB2	Table1	23,711,214	4,722	25,046,252	5,220	5.63%	10.55%
MO	Thomas Hill	MB3	Substitution	47,129,420	9,916	60,434,841	12,768	28.23%	28.76%
MS	Jack Watson	4	Table1	18,271,530	18,528	16,484,019	14,038	-9.78%	-24.23%
MS	Jack Watson	5	Table1	32,387,107	32,033	36,679,476	32,552	13.25%	1.62%
MS	R D Morrow	1	Substitution	14,398,624	4,267	12,358,012	3,572	-14.17%	-16.29%
MS	R D Morrow	2	Substitution	15,094,507	4,383	11,789,856	3,642	-21.89%	-16.91%
NH	Merrimack	1	Table1	9,625,002	12,126	9,547,754	12,479	-0.80%	2.91%
NH	Merrimack	2	Table1	21,653,842	22,794	20,639,634	22,320	-4.68%	-2.08%
NJ	B L England	1	Table1	7,658,545	15,694	7,429,902	14,323	-2.99%	-8.74%
NJ	B L England	2	Table1	6,770,210	1,084	8,076,956	978	19.30%	-9.78%
NY	Dunkirk	CS0003 (3, 4)			37,527		36,414		-2.97%
NY	Dunkirk	3	Table1	12,014,610		11,671,411		-2.86%	
NY	Dunkirk	4	Table1	14,506,026		12,125,304		-16.41%	
NY	Greenidge	6	Table1	8,538,897	9,027	8,188,414	8,865	-4.10%	-1.79%
NY	Milliken	XS12 (1, 2)			8,572		7,524		-12.23%
NY	Milliken	1	Table1	12,085,829		12,902,644		6.76%	
NY	Milliken	2	Table1	12,008,990		12,635,866		5.22%	
NY	Northport	1	Table1	12,065,492	2,764	21,821,549	5,228	80.86%	89.15%
NY	Northport	2	Table1	17,255,806	4,866	21,528,869	5,003	24.76%	2.82%
NY	Northport	3	Table1	19,356,322	10,502	12,999,243	7,001	-32.84%	-33.34%
NY	Northport	4	Substitution	12,918,579	1,136	19,613,318	1,313	51.82%	15.58%
NY	Port Jefferson	3	Table1	9,726,121	4,185	7,026,559	2,325	-27.76%	-44.44%
NY	Port Jefferson	4	Table1	11,039,434	3,171	11,512,191	2,025	4.28%	-36.14%
OH	Acme	13	Substitution	0	0	0	0	0.00%	0.00%
OH	Acme	14	Substitution	0	0	0	0	0.00%	0.00%
OH	Acme	15	Substitution	0	0	0	0	0.00%	0.00%
OH	Acme	16	Substitution	0	0	0	0	0.00%	0.00%
OH	Acme	91	Substitution	0	0	0	0	0.00%	0.00%
OH	Acme	92	Substitution	0	0	0	0	0.00%	0.00%
OH	Ashtabula	7	Table1	9,268,567	26,164	8,120,031	22,153	-12.39%	-15.33%

APPENDIX B-3: EMISSIONS AND UTILIZATION OF PHASE I UNITS FOR 1998 AND 1999

State	Plant Name	Stack/Unit ID	Unit Type	1998		1999		Percent Change, 1998-1999	
				SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)
OH	Ashtabula	CS1 (8, 9, 10, 11)			2,048		3,865		88.72%
OH	Ashtabula	8	Substitution	0		279,973			
OH	Ashtabula	9	Substitution	0		0		0.00%	
OH	Ashtabula	10	Substitution	287,495		512,626		78.31%	
OH	Ashtabula	11	Substitution	530,174		450,475		-15.03%	
OH	Avon Lake	9	Substitution	0	0	0	0	0.00%	0.00%
OH	Avon Lake	10	Substitution	1,437,105	1,222	3,083,112	1,714	114.54%	40.26%
OH	Avon Lake	11	Table1	0	0	0	0	0.00%	0.00%
OH	Avon Lake	12	Table1	36,413,732	27,714	36,160,588	31,154	-0.70%	12.41%
OH	Bay Shore	CS5 (1, 2, 3, 4)			11,472		7,980		-30.44%
OH	Bay Shore	1	Substitution	6,462,382		6,453,497		-0.14%	
OH	Bay Shore	2	Substitution	6,807,479		4,892,897		-28.12%	
OH	Bay Shore	3	Substitution	7,261,342		7,622,340		4.97%	
OH	Bay Shore	4	Substitution	9,238,904		10,722,321		16.06%	
OH	Cardinal	1	Table1	32,017,382	95,520	27,853,645	60,413	-13.00%	-36.75%
OH	Cardinal	2	Table1	34,846,000	33,017	29,083,402	34,358	-16.54%	4.06%
OH	Conesville	CS012 (1, 2)			30,089		25,887		-13.97%
OH	Conesville	1	Table1	6,163,071		5,376,545		-12.76%	
OH	Conesville	2	Table1	6,974,286		6,256,606		-10.29%	
OH	Conesville	3	Table1	7,761,567	17,937	4,940,431	11,548	-36.35%	-35.62%
OH	Conesville	4	Table1	32,772,680	72,035	38,097,747	83,894	16.25%	16.46%
OH	Eastlake	1	Table1	6,311,370	11,186	5,215,645	10,490	-17.36%	-6.22%
OH	Eastlake	2	Table1	6,852,009	11,992	5,849,349	12,441	-14.63%	3.74%
OH	Eastlake	3	Table1	8,079,638	12,985	6,407,370	12,349	-20.70%	-4.90%
OH	Eastlake	4	Table1	10,573,149	18,497	9,870,191	19,978	-6.65%	8.01%
OH	Eastlake	5	Table1	36,867,392	56,011	29,051,400	60,129	-21.20%	7.35%
OH	Edgewater	11	Substitution	0	0	0	0	0.00%	0.00%
OH	Edgewater	12	Substitution	0	0	0	0	0.00%	0.00%
OH	Edgewater	13	Table1	1,228,962	7	1,041,857	20	-15.22%	185.71%
OH	Gen J M Gavin	1	Table1	78,819,640	15,085	89,167,280	8,717	13.13%	-42.21%
OH	Gen J M Gavin	2	Table1	94,637,496	18,718	65,991,259	6,529	-30.27%	-65.12%
OH	Gorge	25	Substitution	0	0	0	0	0.00%	0.00%
OH	Gorge	26	Substitution	0	0	0	0	0.00%	0.00%
OH	J M Stuart	1	Substitution	37,286,928	27,024	33,941,546	24,210	-8.97%	-10.41%
OH	J M Stuart	2	Substitution	40,858,280	29,520	32,282,115	23,091	-20.99%	-21.78%
OH	J M Stuart	3	Substitution	32,223,074	23,211	34,980,662	25,129	8.56%	8.26%
OH	J M Stuart	4	Substitution	33,318,570	23,603	42,381,845	29,557	27.20%	25.23%
OH	Kyger Creek	CS001 (1, 2, 3, 4, 5)			119,171		135,558		13.75%
OH	Kyger Creek	1	Table1	14,334,231		15,868,388		10.70%	
OH	Kyger Creek	2	Table1	15,054,039		14,701,108		-2.34%	
OH	Kyger Creek	3	Table1	14,714,973		13,793,625		-6.26%	
OH	Kyger Creek	4	Table1	16,147,978		14,024,499		-13.15%	
OH	Kyger Creek	5	Table1	14,395,578		14,372,849		-0.16%	
OH	Lake Shore	18	Substitution	3,627,698	1,811	3,158,746	1,527	-12.93%	-15.68%
OH	Lake Shore	91	Substitution	0	0	0	0	0.00%	0.00%

APPENDIX B-3: EMISSIONS AND UTILIZATION OF PHASE I UNITS FOR 1998 AND 1999

State	Plant Name	Stack/Unit ID	Unit Type	1998		1999		Percent Change, 1998-1999	
				SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)
OH	Lake Shore	92	Substitution	0	0	0	0	0.00%	0.00%
OH	Lake Shore	93	Substitution	0	0	0	0	0.00%	0.00%
OH	Lake Shore	94	Substitution	0	0	0	0	0.00%	0.00%
OH	Miami Fort	CS056 (5-1, 5-2, 6)			19,614		18,199		-7.21%
OH	Miami Fort	6	Table1	13,624,571		14,296,977		4.94%	
OH	Miami Fort	7	Table1	29,030,836	36,473	40,335,185	40,559	38.94%	11.20%
OH	Miami Fort	5-1	Table1	1,373,320		1,673,166		21.83%	
OH	Miami Fort	5-2	Table1	1,374,643		1,669,393		21.44%	
OH	Muskingum River	CS014 (1, 2, 3, 4)			152,316		78,543		-48.43%
OH	Muskingum River	1	Table1	9,969,079		3,607,991		-63.81%	
OH	Muskingum River	2	Table1	10,138,733		6,358,846		-37.28%	
OH	Muskingum River	3	Table1	11,271,723		7,348,251		-34.81%	
OH	Muskingum River	4	Table1	10,897,014		4,487,600		-58.82%	
OH	Muskingum River	5	Table1	27,975,016	15,307	35,774,715	22,096	27.88%	44.35%
OH	Niles	XS12 (1, 2)			21,636		19,292		-10.83%
OH	Niles	1	Table1	7,625,299		6,183,854		-18.90%	
OH	Niles	2	Table1	5,534,045		6,582,973		18.95%	
OH	Picway	9	Table1	4,802,830	13,385	3,795,836	9,385	-20.97%	-29.88%
OH	Poston	1	Substitution	0	0	0	0	0.00%	0.00%
OH	Poston	2	Substitution	0	0	0	0	0.00%	0.00%
OH	Poston	3	Substitution	0	0	0	0	0.00%	0.00%
OH	R E Burger	CS0001 (1, 2, 3, 4, 5, 6, 7, 8)			38,543		49,189		27.62%
OH	R E Burger	1	Substitution	0		0		0.00%	
OH	R E Burger	2	Substitution	0		0		0.00%	
OH	R E Burger	3	Substitution	0		0		0.00%	
OH	R E Burger	4	Substitution	0		0		0.00%	
OH	R E Burger	5	Table1	23		482,744		2098786.96%	
OH	R E Burger	6	Table1	22,906		557,221		2332.64%	
OH	R E Burger	7	Table1	10,366,887		8,972,115		-13.45%	
OH	R E Burger	8	Table1	9,213,604		9,084,270		-1.40%	
OH	Toronto	9	Substitution	0	0	0	0	0.00%	0.00%
OH	Toronto	10	Substitution	0	0	0	0	0.00%	0.00%
OH	Toronto	11	Substitution	0	0	0	0	0.00%	0.00%
OH	W H Sammis	5	Table1	19,236,457	16,812	17,509,532	19,111	-8.98%	13.67%
OH	W H Sammis	6	Table1	29,506,312	20,352	45,848,958	36,395	55.39%	78.83%
OH	W H Sammis	7	Table1	44,358,048	45,828	37,729,229	44,027	-14.94%	-3.93%
OH	Walter C Beckjord	5	Table1	15,957,426	20,329	16,565,264	14,764	3.81%	-27.37%
OH	Walter C Beckjord	6	Table1	29,796,457	39,455	29,571,498	26,050	-0.75%	-33.98%
PA	Armstrong	1	Table1	11,997,280	18,227	8,714,032	12,471	-27.37%	-31.58%
PA	Armstrong	2	Table1	11,802,474	17,658	10,502,470	15,125	-11.01%	-14.34%
PA	Bruce Mansfield	1	Substitution	52,609,590	7,527	40,265,916	7,491	-23.46%	-0.48%
PA	Bruce Mansfield	2	Substitution	42,620,088	6,765	45,017,219	9,438	5.62%	39.51%
PA	Brunner Island	CS102 (1, 2)			48,020		40,437		-15.79%
PA	Brunner Island	1	Table1	17,977,978		14,119,976		-21.46%	
PA	Brunner Island	2	Table1	21,591,769		17,835,199		-17.40%	

APPENDIX B-3: EMISSIONS AND UTILIZATION OF PHASE I UNITS FOR 1998 AND 1999

State	Plant Name	Stack/Unit ID	Unit Type	1998		1999		Percent Change, 1998-1999	
				SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)
PA	Brunner Island	3	Table1	38,668,683	47,679	39,197,191	30,751	1.37%	-35.50%
PA	Cheswick	1	Table1	25,447,980	32,177	32,658,260	41,602	28.33%	29.29%
PA	Conemaugh	1	Table1	64,682,996	3,874	69,486,114	4,472	7.43%	15.44%
PA	Conemaugh	2	Table1	72,193,913	4,347	55,907,023	3,421	-22.56%	-21.30%
PA	Hatfield's Ferry	XS123 (1, 2, 3)			150,868		141,872		-5.96%
PA	Hatfield's Ferry	1	Table1	33,536,438		30,551,752		-8.90%	
PA	Hatfield's Ferry	2	Table1	29,112,948		22,255,667		-23.55%	
PA	Hatfield's Ferry	3	Table1	29,387,244		32,926,994		12.05%	
PA	Martins Creek	CS102 (1, 2)			15,834		13,972		-11.76%
PA	Martins Creek	1	Table1	6,486,775		5,094,585		-21.46%	
PA	Martins Creek	2	Table1	6,021,584		4,913,542		-18.40%	
PA	Martins Creek	3	Substitution	11,288,576	4,742	8,148,433	2,248	-27.82%	-52.59%
PA	Martins Creek	4	Substitution	10,631,226	4,347	10,305,450	3,310	-3.06%	-23.86%
PA	Mitchell	33	Substitution	16,084,774	1,050	15,416,659	994	-4.15%	-5.33%
PA	New Castle	1	Substitution	0	0	0	0	0.00%	0.00%
PA	New Castle	2	Substitution	0	0	0	0	0.00%	0.00%
PA	Portland	1	Table1	8,564,817	9,772	8,426,585	11,220	-1.61%	14.82%
PA	Portland	2	Table1	10,950,567	12,126	11,751,042	15,099	7.31%	24.52%
PA	Shawville	1	Table1	8,432,824	12,864	7,078,616	10,974	-16.06%	-14.69%
PA	Shawville	2	Table1	8,234,692	12,365	8,503,856	12,853	3.27%	3.95%
PA	Shawville	CS1 (3, 4)			33,535		27,959		-16.63%
PA	Shawville	3	Table1	12,435,105		11,014,863		-11.42%	
PA	Shawville	4	Table1	12,289,735		8,973,627		-26.98%	
PA	Sunbury	3	Table1	8,357,434	10,307	5,180,806	6,099	-38.01%	-40.83%
PA	Sunbury	4	Table1	9,405,060	11,970	6,304,698	7,480	-32.96%	-37.51%
TN	Allen	1	Table1	13,314,521	5,671	9,851,081	3,997	-26.01%	-29.52%
TN	Allen	2	Table1	17,881,872	7,378	10,664,977	4,393	-40.36%	-40.46%
TN	Allen	3	Table1	18,246,196	7,162	13,303,435	5,291	-27.09%	-26.12%
TN	Cumberland	1	Table1	93,425,640	10,610	73,656,897	7,070	-21.16%	-33.36%
TN	Cumberland	2	Table1	77,445,408	9,891	105,807,314	8,851	36.62%	-10.51%
TN	DuPont Johnsonville	JVD1	Opt-In	0	0	0	0	0.00%	0.00%
TN	DuPont Johnsonville	JVD2	Opt-In	0	0	0	0	0.00%	0.00%
TN	DuPont Johnsonville	JVD3	Opt-In	0	0	0	0	0.00%	0.00%
TN	DuPont Johnsonville	JVD4	Opt-In	0	0	0	0	0.00%	0.00%
TN	Gallatin	CSGA12 (1, 2)			40,664		37,124		-8.71%
TN	Gallatin	1	Table1	16,675,013		19,169,909		14.96%	
TN	Gallatin	2	Table1	13,358,894		17,111,033		28.09%	
TN	Gallatin	CSGA34 (3, 4)			45,551		47,717		4.76%
TN	Gallatin	3	Table1	18,006,243		20,933,769		16.26%	
TN	Gallatin	4	Table1	14,508,353		19,865,790		36.93%	
TN	Johnsonville	CSJO10 (1, 2, 3, 4, 5, 6, 7, 8, 9, 10)			114,588		119,778		4.53%
TN	Johnsonville	1	Table1	8,391,787		8,581,945		2.27%	
TN	Johnsonville	2	Table1	6,454,090		8,748,656		35.55%	
TN	Johnsonville	3	Table1	5,676,977		7,790,561		37.23%	
TN	Johnsonville	4	Table1	7,806,189		8,704,533		11.51%	

APPENDIX B-3: EMISSIONS AND UTILIZATION OF PHASE I UNITS FOR 1998 AND 1999

State	Plant Name	Stack/Unit ID	Unit Type	1998		1999		Percent Change, 1998-1999	
				SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)
TN	Johnsonville	5	Table1	6,805,978		7,690,236		12.99%	
TN	Johnsonville	6	Table1	7,370,703		7,812,089		5.99%	
TN	Johnsonville	7	Table1	7,852,052		8,973,487		14.28%	
TN	Johnsonville	8	Table1	8,457,149		7,349,441		-13.10%	
TN	Johnsonville	9	Table1	9,737,698		10,876,009		11.69%	
TN	Johnsonville	10	Table1	8,049,553		8,505,788		5.67%	
WI	Alma	CS2 (B1, B2, B3)			1,287		757		-41.18%
WI	Alma	B1	Opt-In	663,744		544,455		-17.97%	
WI	Alma	B2	Opt-In	602,030		460,323		-23.54%	
WI	Alma	B3	Opt-In	565,438		499,689		-11.63%	
WI	Alma	CS1 (B1, B2, B3, B4, B5)			6,517		3,060		-53.05%
WI	Alma	B4	Substitution	3,122,034		2,496,086		-20.05%	
WI	Alma	B5	Substitution	4,318,051		3,249,944		-24.74%	
WI	Edgewater	3	Substitution	5,011,080	1,973	3,809,692	1,356	-23.97%	-31.27%
WI	Edgewater	4	Table1	20,197,100	8,391	18,569,057	6,624	-8.06%	-21.06%
WI	Genoa	1	Table1	16,559,515		20,395,109	12,513	23.16%	38.56%
WI	J P Madgett	B1	Substitution	25,231,992	5,223	25,466,640	5,333	0.93%	2.11%
WI	Nelson Dewey	CS1 (1, 2)			10,861		13,280		22.27%
WI	Nelson Dewey	1	Table1	6,172,813		6,991,292		13.26%	
WI	Nelson Dewey	2	Table1	7,216,679		7,093,604		-1.71%	
WI	North Oak Creek	1	Table1	0	0	0	0	0.00%	0.00%
WI	North Oak Creek	2	Table1	0	0	0	0	0.00%	0.00%
WI	North Oak Creek	3	Table1	0	0	0	0	0.00%	0.00%
WI	North Oak Creek	4	Table1	0	0	0	0	0.00%	0.00%
WI	Pulliam	CS56 (5, 6)			1,884		2,278		20.91%
WI	Pulliam	5	Substitution	3,766,998		4,010,079		6.45%	
WI	Pulliam	6	Substitution	5,003,476		6,006,083		20.04%	
WI	Pulliam	7	Substitution	7,422,811	1,569	5,722,099	1,264	-22.91%	-19.44%
WI	Pulliam	8	Table1	11,212,789	2,283	10,395,306	2,196	-7.29%	-3.81%
WI	Rock River	1	Substitution	4,083,241	1,532	2,259,634	656	-44.66%	-57.18%
WI	Rock River	2	Substitution	4,957,022	1,898	1,948,975	741	-60.68%	-60.96%
WI	South Oak Creek	CS3 (5, 6)			16,781		15,736		-6.23%
WI	South Oak Creek	5	Table1	10,136,963		15,289,701		50.83%	
WI	South Oak Creek	6	Table1	16,111,857		13,120,528		-18.57%	
WI	South Oak Creek	CS4 (7, 8)			26,529		17,153		-35.34%
WI	South Oak Creek	7	Table1	20,272,864		20,083,880		-0.93%	
WI	South Oak Creek	8	Table1	18,324,182		19,699,186		7.50%	
WI	Weston	1	Substitution	3,956,520	1,111	4,182,326	1,263	5.71%	13.68%
WI	Weston	2	Substitution	6,830,073	1,922	5,893,048	1,778	-13.72%	-7.49%
WV	Albright	1	Substitution	1,843,436	2,202	2,125,873	2,500	15.32%	13.53%
WV	Albright	2	Substitution	1,623,422	1,929	2,179,803	2,523	34.27%	30.79%
WV	Albright	3	Table1	6,078,740	7,228	9,852,124	11,640	62.08%	61.04%
WV	Fort Martin	1	Table1	34,726,484	41,641	39,694,066	50,943	14.30%	22.34%
WV	Fort Martin	2	Table1	30,423,447	37,663	37,345,654	48,158	22.75%	27.87%
WV	Harrison	XS123 (1, 2, 3)			6,934		6,835		-1.43%

APPENDIX B-3: EMISSIONS AND UTILIZATION OF PHASE I UNITS FOR 1998 AND 1999

State	Plant Name	Stack/Unit ID	Unit Type	1998		1999		Percent Change, 1998-1999	
				SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)
WV	Harrison	1	Table1	46,082,925		51,023,022		10.72%	
WV	Harrison	2	Table1	51,433,080		44,723,816		-13.04%	
WV	Harrison	3	Table1	55,241,467		48,979,700		-11.34%	
WV	Kammer	CS013 (1, 2, 3)			108,618		104,231		-4.04%
WV	Kammer	1	Table1	13,479,546		11,856,165		-12.04%	
WV	Kammer	2	Table1	12,639,201		15,026,115		18.89%	
WV	Kammer	3	Table1	13,391,834		12,839,130		-4.13%	
WV	Mitchell	CS012 (1, 2)			59,330		55,046		-7.22%
WV	Mitchell	1	Table1	44,346,849		42,576,634		-3.99%	
WV	Mitchell	2	Table1	48,141,367		44,230,623		-8.12%	
WV	Mt Storm	CS0 (1, 2)			106,759		101,124		-5.28%
WV	Mt Storm	1	Table1	41,523,871		39,788,598		-4.18%	
WV	Mt Storm	2	Table1	39,716,905		36,646,063		-7.73%	
WV	Mt Storm	3	Table1	47,191,480	4,576	39,419,794	3,481	-16.47%	-23.93%
WV	Rivesville	7	Substitution	819,610	624	576,450	444	-29.67%	-28.85%
WV	Rivesville	8	Substitution	2,531,623	1,995	3,849,565	2,954	52.06%	48.07%

NOTES: (a) Identifies the affected unit as listed in Table 1, as a substitution or compensating unit, or as an opt-in unit.

APPENDIX B-4: EMISSIONS AND ALLOWANCE HOLDINGS OF PHASE I UNITS FOR 1999

State	Plant Name	Stack/Unit ID	Unit Type (a)	SO2 Emissions 1998(b)	SO2 Emissions 1999(b)	1999 Allowances Allocated (c)	Held in Unit Accounts as of 3/1/00	Allowances Deducted for Emissions (d)	Deducted Under Special Phase I Provisions (e)	Allowances Carried Over to 2000
AL	Colbert	CSCO14 (1, 2, 3, 4)		26,653	22,601					
AL	Colbert	1	Table1			13,213	27,111	5,959		21,152
AL	Colbert	2	Table1			14,907	36,234	6,236		29,998
AL	Colbert	3	Table1			14,995	36,810	5,637		31,173
AL	Colbert	4	Table1			15,005	37,703	4,769		32,934
AL	Colbert	5	Table1	47,608	46,972	36,202	52,155	46,972		5,183
AL	E C Gaston	CS0CAN (1, 2)		25,864	29,118					
AL	E C Gaston	1	Table1			17,624	17,517	16,219		1,298
AL	E C Gaston	2	Table1			18,052	13,931	12,899		1,032
AL	E C Gaston	CS0CBN (3, 4)		25,669	28,502					
AL	E C Gaston	3	Table1			17,828	16,237	15,034		1,203
AL	E C Gaston	4	Table1			18,773	14,545	13,468		1,077
AL	E C Gaston	5	Table1	41,489	43,508	58,265	84,395	43,508		40,887
AL	Gadsden	1	Substitution	4,751	4,242	5,158	4,742	4,242		500
AL	Gadsden	2	Substitution	4,463	4,289	5,374	4,789	4,289		500
FL	Big Bend	XS12 (BB01, BB02)		90,881	80,704					
FL	Big Bend	BB01	Table1			27,662	44,340	39,545		4,795
FL	Big Bend	BB02	Table1			26,387	44,158	41,159		2,999
FL	Big Bend	XS23 (BB03, BB04)		16,544	14,910					
FL	Big Bend	BB03	Table1			26,036	13,851	10,798		3,053
FL	Big Bend	BB04	Substitution			6,400	9,826	4,112		5,714
FL	Crist	4	Substitution	3,255	3,329	9,953	37,585	3,329		34,256
FL	Crist	5	Substitution	3,872	2,391	9,374	33,007	2,391		30,616
FL	Crist	6	Table1	14,461	13,233	18,695	42,331	13,233		29,098
FL	Crist	7	Table1	29,005	26,748	30,846	67,343	26,748		40,595
FL	Scholz	1	Substitution	1,877	1,557	8,282	33,431	1,557		31,874
FL	Scholz	2	Substitution	2,877	1,733	8,572	32,124	1,733		30,391
GA	Arkwright	CS001 (1, 2, 3, 4)		4,272	4,089					
GA	Arkwright	1	Substitution			2,437	5,385	1,023		4,362
GA	Arkwright	2	Substitution			2,240	4,794	1,022		3,772
GA	Arkwright	3	Substitution			3,944	9,906	1,022		8,884
GA	Arkwright	4	Substitution			3,159	7,552	1,022		6,530
GA	Bowen	1BLR	Table1	34,016	28,631	54,838	94,106	28,631		65,475
GA	Bowen	2BLR	Table1	28,130	34,348	53,329	110,322	34,348		75,974
GA	Bowen	3BLR	Table1	47,897	37,294	69,862	138,458	37,294		101,164
GA	Bowen	4BLR	Table1	35,108	39,881	69,852	151,649	39,881		111,768
GA	Hammond	CS001 (1, 2, 3)		9,842	10,346					
GA	Hammond	1	Table1			8,549	19,496	3,448		16,048

APPENDIX B-4: EMISSIONS AND ALLOWANCE HOLDINGS OF PHASE I UNITS FOR 1999

State	Plant Name	Stack/Unit ID	Unit Type (a)	SO2 Emissions 1998(b)	SO2 Emissions 1999(b)	1999 Allowances Allocated (c)	Held in Unit Accounts as of 3/1/00	Allowances Deducted for Emissions (d)	Deducted Under Special Phase I Provisions (e)	Allowances Carried Over to 2000
GA	Hammond	2	Table1			8,977	20,780	3,449		17,331
GA	Hammond	3	Table1			8,676	19,879	3,449		16,430
GA	Hammond	4	Table1	13,217	19,579	36,650	104,458	19,579		84,879
GA	Harlee Branch	CS001 (1, 2)		32,342	28,996					
GA	Harlee Branch	1	Substitution			19,221	37,988	14,498		23,490
GA	Harlee Branch	2	Substitution			22,735	55,559	14,498		41,061
GA	Harlee Branch	CS002 (3, 4)		56,643	48,692					
GA	Harlee Branch	3	Substitution			31,280	54,792	24,346		30,446
GA	Harlee Branch	4	Substitution			31,042	53,601	24,346		29,255
GA	Jack Mcdonough	CS001 (MB1, MB2)		28,516	24,212					
GA	Jack Mcdonough	MB1	Table1			19,386	49,144	12,106		37,038
GA	Jack Mcdonough	MB2	Table1			20,058	51,832	12,106		39,726
GA	Kraft	CS001 (1, 2, 3)		5,906	6,759					
GA	Kraft	1	Substitution			2,265	3,858	1,452		2,406
GA	Kraft	2	Substitution			2,137	3,695	1,692		2,003
GA	Kraft	3	Substitution			4,121	6,242	3,615		2,627
GA	Mcintosh	1	Substitution	6,716	6,182	7,146	9,627	6,182		3,445
GA	Mitchell	3	Substitution	4,621	4,430	10,792	34,655	4,430		30,225
GA	Wansley	1	Table1	44,760	43,290	68,908	122,624	43,290		79,334
GA	Wansley	2	Table1	42,489	37,418	63,708	108,981	37,418		71,563
GA	Yates	Y1BR	Table1	131	179	9,533	32,220	179		32,041
GA	Yates	CS001 (Y2BR, Y3BR)		6,865	7,191					
GA	Yates	Y2BR	Table1			6,855	20,781	3,595		17,186
GA	Yates	Y3BR	Table1			6,767	20,430	3,596		16,834
GA	Yates	CS002 (Y4BR, Y5BR)		9,136	8,588					
GA	Yates	Y4BR	Table1			8,676	25,674	4,294		21,380
GA	Yates	Y5BR	Table1			9,162	27,619	4,294		23,325
GA	Yates	Y6BR	Table1	11,192	9,001	24,108	75,847	9,001		66,846
GA	Yates	Y7BR	Table1	12,150	10,447	20,915	61,808	10,447		51,361
IA	Burlington	1	Table1	5,847	6,502	10,428	24,317	6,502		17,815
IA	Des Moines	11	Table1	0	0	2,259	0	0		0
IA	George Neal North	1	Table1	3,974	3,420	2,571	10,692	3,420		7,272
IA	Milton L Kapp	2	Table1	5,282	4,437	13,437	43,424	4,437	23	38,964
IA	Prairie Creek	4	Table1	4,035	3,773	7,965	24,488	3,773		20,715
IA	Riverside	9	Table1	1,435	1,879	3,885	11,332	1,879		9,453
IL	Baldwin	1	Table1	71,396	65,231	46,052	66,785	65,231		1,554
IL	Baldwin	2	Table1	92,968	91,310	48,695	92,331	91,310		1,021
IL	Baldwin	3	Table1	120,253	88,703	46,644	89,755	88,703		1,052

APPENDIX B-4: EMISSIONS AND ALLOWANCE HOLDINGS OF PHASE I UNITS FOR 1999

State	Plant Name	Stack/Unit ID	Unit Type (a)	SO2 Emissions 1998(b)	SO2 Emissions 1999(b)	1999 Allowances Allocated (c)	Held in Unit Accounts as of 3/1/00	Allowances Deducted for Emissions (d)	Deducted Under Special Phase I Provisions (e)	Allowances Carried Over to 2000
IL	Coffeen	CS0001 (1, 2)		49,413	47,611					
IL	Coffeen	1	Table1			12,925	17,322	17,224		98
IL	Coffeen	2	Table1			39,102	30,482	30,387		95
IL	Grand Tower	9	Table1	9,188	6,813	6,479	6,936	6,813		123
IL	Havana	6	Substitution	29	28	34	62	28		34
IL	Hennepin	CS3 (1, 2)		46,809	27,532					
IL	Hennepin	1	Substitution			9,847	6,847	5,176		1,671
IL	Hennepin	2	Table1			20,182	23,182	22,356		826
IL	Hutsonville	5	Substitution	5,238	5,189	9,661	5,565	5,189		376
IL	Hutsonville	6	Substitution	5,666	5,463	9,837	5,588	5,463		125
IL	Joppa Steam	CS1 (1, 2)		8,280	7,627					
IL	Joppa Steam	1	Table1			12,259	44,959	3,813		41,146
IL	Joppa Steam	2	Table1			10,487	36,098	3,814		32,284
IL	Joppa Steam	CS2 (3, 4)		7,937	7,952					
IL	Joppa Steam	3	Table1			11,947	43,886	3,976		39,910
IL	Joppa Steam	4	Table1			11,061	39,456	3,976		35,480
IL	Joppa Steam	CS3 (5, 6)		7,636	8,165					
IL	Joppa Steam	5	Table1			11,119	37,136	4,082		33,054
IL	Joppa Steam	6	Table1			10,341	33,246	4,083		29,163
IL	Kincaid	CS0102 (1, 2)		46,417	19,867					
IL	Kincaid	1	Table1			34,564	14,412	11,920		2,492
IL	Kincaid	2	Table1			37,063	10,881	7,947		2,934
IL	Meredosia	5	Table1	10,941	12,450	15,227	12,641	12,450		191
IL	Newton	1	Substitution	7,508	9,935	14,599	14,320	9,935		4,385
IL	Vermilion	CS3 (1, 2)		12,220	10,833					
IL	Vermilion	1	Substitution			12,972	5,028	3,976		1,052
IL	Vermilion	2	Table1			9,735	7,972	6,857		1,115
IL	Wood River	1	Substitution	1	0	0	12	0		12
IN	Bailly	XS12 (7, 8)		4,334	3,813					
IN	Bailly	7	Table1			15,818	14,255	1,411		12,844
IN	Bailly	8	Table1			21,600	32,600	2,402		30,198
IN	Breed	1	Table1	0	0	20,280	30,362	0		30,362
IN	Cayuga	1	Table1	51,345	38,153	36,581	43,462	38,153		5,309
IN	Cayuga	2	Table1	37,593	45,309	37,415	53,814	45,309		8,505
IN	Clifty Creek	CS001 (1, 2, 3)		46,294	26,131					
IN	Clifty Creek	1	Table1			19,620	17,885	8,711	153	9,021
IN	Clifty Creek	2	Table1			19,289	12,727	8,710	165	3,852
IN	Clifty Creek	3	Table1			19,873	13,262	8,710	169	4,383

APPENDIX B-4: EMISSIONS AND ALLOWANCE HOLDINGS OF PHASE I UNITS FOR 1999

State	Plant Name	Stack/Unit ID	Unit Type (a)	SO2 Emissions 1998(b)	SO2 Emissions 1999(b)	1999 Allowances Allocated (c)	Held in Unit Accounts as of 3/1/00	Allowances Deducted for Emissions (d)	Deducted Under Special Phase I Provisions (e)	Allowances Carried Over to 2000
IN	Clifty Creek	CS002 (4, 5, 6)		42,899	26,545					
IN	Clifty Creek	4	Table1			19,552	14,774	8,849	140	5,785
IN	Clifty Creek	5	Table1			18,851	12,087	8,848	46	3,193
IN	Clifty Creek	6	Table1			19,844	34,618	8,848	100	25,670
IN	Elmer W Stout	50	Table1	6,638	7,967	4,253	8,565	7,967		598
IN	Elmer W Stout	60	Table1	7,392	7,812	5,229	8,153	7,812		341
IN	Elmer W Stout	70	Table1	25,931	28,801	25,883	29,700	28,801		899
IN	F B Culley	XS23 (2, 3)		7,687	8,634					
IN	F B Culley	2	Table1			4,703	9,347	8,634		713
IN	F B Culley	3	Table1			18,603	38,206	0		38,206
IN	Frank E Ratts	1SG1	Table1	9,236	6,136	9,131	14,258	6,136		8,122
IN	Frank E Ratts	2SG1	Table1	9,393	11,044	9,296	11,918	11,044		874
IN	Gibson	CS0003 (1, 2)		94,431	84,282					
IN	Gibson	1	Table1			44,288	68,746	43,427		25,319
IN	Gibson	2	Table1			44,956	65,137	40,855		24,282
IN	Gibson	XS34 (3, 4)		51,189	56,662					
IN	Gibson	3	Table1			45,033	69,168	28,331		40,837
IN	Gibson	4	Table1			44,200	99,319	28,331		70,988
IN	H T Pritchard	CS596 (5, 6)		7,512	9,133					
IN	H T Pritchard	5	Substitution			1,458	3,011	2,822		189
IN	H T Pritchard	6	Table1			6,325	6,557	6,311		246
IN	Michigan City	12	Table1	16,672	10,512	25,553	77,113	10,512		66,601
IN	Petersburg	1	Table1	2,247	2,202	18,011	2,412	2,202		210
IN	Petersburg	2	Table1	4,136	4,945	35,496	5,400	4,945		455
IN	R Gallagher	CS0001 (1, 2)		22,954	24,027					
IN	R Gallagher	1	Table1			7,115	12,954	12,282		672
IN	R Gallagher	2	Table1			7,980	12,785	11,745		1,040
IN	R Gallagher	CS0002 (3, 4)		27,642	25,850					
IN	R Gallagher	3	Table1			7,159	13,121	12,602		519
IN	R Gallagher	4	Table1			8,386	14,689	13,248		1,441
IN	Tanners Creek	U4	Table1	32,017	34,708	27,209	142,162	34,708		107,454
IN	Wabash River	1	Table1	851	461	5,379	15,673	461		15,212
IN	Wabash River	CS005 (2, 3, 5, 6)		48,580	49,210					
IN	Wabash River	2	Table1			3,135	9,847	8,297		1,550
IN	Wabash River	3	Table1			4,111	11,499	5,182		6,317
IN	Wabash River	5	Table1			4,023	9,334	7,813		1,521
IN	Wabash River	6	Table1			13,462	28,580	27,918		662
IN	Warrick	XS123 (1, 2, 3)		78,964	83,243					

APPENDIX B-4: EMISSIONS AND ALLOWANCE HOLDINGS OF PHASE I UNITS FOR 1999

State	Plant Name	Stack/Unit ID	Unit Type (a)	SO2	SO2	1999	Held in	Allowances	Deducted Under	Allowances
				Emissions 1998(b)	Emissions 1999(b)	Allocated (c)	Unit Accounts as of 3/1/00	Deducted for Emissions (d)	Special Phase I Provisions (e)	Carried Over to 2000
IN	Warrick	1	Opt-In			30,372	26,889	25,821	134	934
IN	Warrick	2	Opt-In			30,732	29,954	29,549		405
IN	Warrick	3	Opt-In			27,668	28,906	27,873		1,033
IN	Warrick	4	Table1	34,078	36,413	29,577	38,281	36,413		1,868
KS	La Cygne	1	Substitution	6,319	10,906	23,489	11,297	10,906		391
KS	Quindaro	2	Table1	2,985	2,411	4,109	7,818	2,411		5,407
KY	Coleman	C1	Table1	13,908	11,138	10,954	13,478	11,138		2,340
KY	Coleman	C2	Table1	9,677	12,879	12,502	14,995	12,879		2,116
KY	Coleman	C3	Table1	14,568	13,420	12,015	15,862	13,420		2,442
KY	Cooper	CS1 (1, 2)		17,613	19,882					
KY	Cooper	1	Table1			7,254	13,675	6,561		7,114
KY	Cooper	2	Table1			14,917	28,708	13,321		15,387
KY	E W Brown	1	Table1	6,762	7,051	6,923	22,972	7,051		15,921
KY	E W Brown	CS003 (2, 3)		35,473	38,513					
KY	E W Brown	2	Table1			10,623	33,638	10,813		22,825
KY	E W Brown	3	Table1			25,413	87,703	27,700		60,003
KY	East Bend	2	Substitution	13,064	18,096	17,447	29,713	18,096		11,617
KY	Elmer Smith	XS12 (1, 2)		7,011	8,402					
KY	Elmer Smith	1	Table1			6,348	8,147	2,521		5,626
KY	Elmer Smith	2	Table1			14,031	18,231	5,881		12,350
KY	Ghent	1	Table1	7,396	6,452	33,701	135,908	6,452		129,456
KY	Green River	5	Table1	14,438	11,122	7,614	14,979	11,122		3,857
KY	H L Spurlock	1	Table1	14,941	16,444	22,181	53,604	16,444		37,160
KY	Hmp&L Station 2	H1	Table1	2,397	2,560	17,900	9,609	2,560		7,049
KY	Hmp&L Station 2	H2	Table1	2,130	3,246	17,059	8,311	3,246		5,065
KY	Paradise	3	Table1	126,946	145,724	57,613	244,152	145,724		98,428
KY	R D Green	G1	Substitution	1,828	2,544	5,041	7,367	2,544		4,823
KY	R D Green	G2	Substitution	2,136	2,300	5,827	8,538	2,300		6,238
KY	Shawnee	10	Table1	1,560	1,597	9,902	26,394	1,597		24,797
MA	Brayton Point	1	Compensating	9,739	10,328	15,085	11,360	10,328		1,032
MA	Brayton Point	2	Compensating	9,744	10,030	15,838	11,035	10,030		1,005
MA	Mount Tom	1	Substitution	8,417	7,172	10,708	15,576	7,172	2,311	6,093
MD	C P Crane	1	Table1	15,224	12,942	10,058	66,953	12,942		54,011
MD	C P Crane	2	Table1	13,636	18,121	8,987	22,611	18,121		4,490
MD	Chalk Point	CSE12 (1, 2)		44,721	45,450					
MD	Chalk Point	1	Table1			21,333	30,240	22,986		7,254
MD	Chalk Point	2	Table1			23,690	30,290	22,464		7,826
MD	Chalk Point	3	Substitution	7,732	7,898	9,000	20,268	7,898		12,370

APPENDIX B-4: EMISSIONS AND ALLOWANCE HOLDINGS OF PHASE I UNITS FOR 1999

State	Plant Name	Stack/Unit ID	Unit Type (a)	SO2 Emissions 1998(b)	SO2 Emissions 1999(b)	1999 Allowances Allocated (c)	Held in Unit Accounts as of 3/1/00	Allowances Deducted for Emissions (d)	Deducted Under Special Phase I Provisions (e)	Allowances Carried Over to 2000
MD	Morgantown	1	Table1	34,953	41,194	34,332	62,425	41,194		21,231
MD	Morgantown	2	Table1	44,953	34,325	37,467	42,273	34,325		7,948
MD	R P Smith	9	Substitution	117	133	386	556	133		423
MD	R P Smith	11	Substitution	2,262	2,664	3,128	2,691	2,664		27
MI	Dan E Karn	2	Substitution	8,426	10,282	10,984	11,312	10,282		1,030
MI	J C Weadock	CS0009 (7, 8)		12,330	10,701					
MI	J C Weadock	7	Substitution			5,473	4,865	4,422		443
MI	J C Weadock	8	Substitution			5,451	6,908	6,279		629
MI	J H Campbell	CS0009 (1, 2)		22,693	24,089					
MI	J H Campbell	1	Table1			18,773	11,352	10,320		1,032
MI	J H Campbell	2	Table1			22,453	15,147	13,769		1,378
MI	J R Whiting	1	Substitution	3,940	3,835	4,188	4,220	3,835		385
MI	J R Whiting	2	Substitution	4,561	4,090	4,304	4,501	4,090		411
MI	J R Whiting	3	Substitution	4,755	4,925	5,498	5,419	4,925		494
MN	High Bridge	CS0001 (3, 4, 5, 6)		4,044	3,482					
MN	High Bridge	3	Substitution			299	3,397	201		3,196
MN	High Bridge	4	Substitution			242	1,937	336		1,601
MN	High Bridge	5	Substitution			410	2,022	1,154		868
MN	High Bridge	6	Table1			4,158	9,485	1,791		7,694
MN	Sherburne County	CS1 (1, 2)		8,958	10,756					
MN	Sherburne County	1	Substitution			4,681	16,114	4,955		11,159
MN	Sherburne County	2	Substitution			4,727	16,227	5,801		10,426
MO	Asbury	1	Table1	8,212	8,046	15,764	45,191	8,046		37,145
MO	Hawthorn	5	Substitution	7,106	821	6,927	21,707	821		20,886
MO	James River	3	Substitution	1,409	1,001	2,536	5,037	1,001		4,036
MO	James River	4	Substitution	1,708	1,438	4,304	7,740	1,438		6,302
MO	James River	5	Table1	2,810	2,588	4,722	5,400	2,588		2,812
MO	Labadie	1	Table1	15,654	10,184	39,055	12,112	10,184		1,928
MO	Labadie	2	Table1	12,987	10,959	36,718	12,968	10,959		2,009
MO	Labadie	3	Table1	14,602	9,033	39,249	11,448	9,033		2,415
MO	Labadie	4	Table1	14,354	8,605	34,994	11,032	8,605		2,427
MO	Meramec	1	Substitution	1,670	1,897	1,816	3,017	1,897		1,120
MO	Meramec	2	Substitution	1,541	1,798	1,948	3,280	1,798		1,482
MO	Meramec	3	Substitution	3,706	3,902	4,166	5,976	3,902		2,074
MO	Montrose	1	Table1	4,072	2,644	7,196	4,445	2,644		1,801
MO	Montrose	CS023 (2, 3)		8,875	7,025					
MO	Montrose	2	Table1			7,984	5,863	3,674		2,189
MO	Montrose	3	Table1			9,824	7,500	3,351		4,149

APPENDIX B-4: EMISSIONS AND ALLOWANCE HOLDINGS OF PHASE I UNITS FOR 1999

State	Plant Name	Stack/Unit ID	Unit Type (a)	SO2 Emissions 1998(b)	SO2 Emissions 1999(b)	1999 Allowances Allocated (c)	Held in Unit Accounts as of 3/1/00	Allowances Deducted for Emissions (d)	Deducted Under Special Phase I Provisions (e)	Allowances Carried Over to 2000
MO	New Madrid	1	Table1	8,735	9,570	27,497	27,497	9,570		17,927
MO	New Madrid	2	Table1	9,018	6,863	31,625	31,425	6,863		24,562
MO	Rush Island	1	Substitution	13,485	12,653	26,935	15,134	12,653		2,481
MO	Rush Island	2	Substitution	13,924	14,543	30,146	17,248	14,543		2,705
MO	Sibley	CS0001 (1, 2, 3)		27,056	26,183					
MO	Sibley	1	Substitution			2,782	5,598	3,927		1,671
MO	Sibley	2	Substitution			3,332	8,326	5,237		3,089
MO	Sibley	3	Table1			15,170	18,152	17,019		1,133
MO	Sioux	1	Table1	18,885	25,148	21,976	45,197	25,148		20,049
MO	Sioux	2	Table1	23,062	18,624	23,067	38,088	18,624		19,464
MO	Southwest	1	Substitution	6,837	3,538	3,906	4,230	3,538		692
MO	Thomas Hill	MB1	Table1	3,080	3,139	9,980	9,980	3,139		6,841
MO	Thomas Hill	MB2	Table1	4,722	5,220	18,880	18,880	5,220		13,660
MO	Thomas Hill	MB3	Substitution	9,916	12,768	14,011	14,011	12,768		1,243
MS	Jack Watson	4	Table1	18,528	14,038	17,439	26,818	14,038		12,780
MS	Jack Watson	5	Table1	32,033	32,552	35,734	52,075	32,552		19,523
MS	R D Morrow	1	Substitution	4,267	3,572	4,571	5,186	3,572		1,614
MS	R D Morrow	2	Substitution	4,383	3,642	5,002	7,085	3,642		3,443
NH	Merrimack	1	Table1	12,126	12,479	9,922	12,825	12,479		346
NH	Merrimack	2	Table1	22,794	22,320	21,421	22,674	22,320		354
NJ	B L England	1	Table1	15,694	14,323	8,822	20,287	14,323		5,964
NJ	B L England	2	Table1	1,084	978	14,886	2,803	978		1,825
NY	Dunkirk	CS0003 (3, 4)		37,527	36,414					
NY	Dunkirk	3	Table1			12,268	29,305	25,490		3,815
NY	Dunkirk	4	Table1			13,690	15,095	10,924		4,171
NY	Greenidge	6	Table1	9,027	8,865	7,342	15,589	8,865		6,724
NY	Milliken	XS12 (1, 2)		8,572	7,524					
NY	Milliken	1	Table1			10,876	15,934	3,729		12,205
NY	Milliken	2	Table1			12,083	9,316	3,795		5,521
NY	Northport	1	Table1	2,764	5,228	19,289	19,953	5,228		14,725
NY	Northport	2	Table1	4,866	5,003	23,476	9,486	5,003		4,483
NY	Northport	3	Table1	10,502	7,001	25,783	32,397	7,001		25,396
NY	Northport	4	Substitution	1,136	1,313	5,516	14,058	1,313		12,745
NY	Port Jefferson	3	Table1	4,185	2,325	10,194	10,228	2,325		7,903
NY	Port Jefferson	4	Table1	3,171	2,025	12,006	15,846	2,025		13,821
OH	Acme	13	Substitution	0	0	0	0	0		0
OH	Acme	14	Substitution	0	0	12	0	0		0
OH	Acme	15	Substitution	0	0	16	0	0		0

APPENDIX B-4: EMISSIONS AND ALLOWANCE HOLDINGS OF PHASE I UNITS FOR 1999

State	Plant Name	Stack/Unit ID	Unit Type (a)	SO2	SO2	1999	Held in	Allowances	Deducted Under	Allowances
				Emissions 1998(b)	Emissions 1999(b)	Allowances Allocated (c)	Unit Accounts as of 3/1/00	Deducted for Emissions (d)	Special Phase I Provisions (e)	Carried Over to 2000
OH	Acme	16	Substitution	0	0	1,930	0	0		0
OH	Acme	91	Substitution	0	0	740	0	0		0
OH	Acme	92	Substitution	0	0	662	0	0		0
OH	Ashtabula	7	Table1	26,164	22,153	18,351	23,260	22,153		1,107
OH	Ashtabula	CS1 (8, 9, 10, 11)		2,048	3,865					
OH	Ashtabula	8	Substitution			7,487	911	866		45
OH	Ashtabula	9	Substitution			7,016	0	0		0
OH	Ashtabula	10	Substitution			6,155	1,680	1,600		80
OH	Ashtabula	11	Substitution			6,452	1,467	1,399		68
OH	Avon Lake	9	Substitution	0	0	8,763	672	0		672
OH	Avon Lake	10	Substitution	1,222	1,714	7,879	2,000	1,714		286
OH	Avon Lake	11	Table1	0	0	12,771	980	0		980
OH	Avon Lake	12	Table1	27,714	31,154	33,413	32,791	31,154		1,637
OH	Bay Shore	CS5 (1, 2, 3, 4)		11,472	7,980					
OH	Bay Shore	1	Substitution			7,414	1,758	1,676		82
OH	Bay Shore	2	Substitution			6,957	1,477	1,404		73
OH	Bay Shore	3	Substitution			7,585	2,108	2,011		97
OH	Bay Shore	4	Substitution			12,481	3,035	2,889		146
OH	Cardinal	1	Table1	95,520	60,413	37,568	63,577	60,413		3,164
OH	Cardinal	2	Table1	33,017	34,358	42,008	61,477	34,358		27,119
OH	Conesville	CS012 (1, 2)		30,089	25,887					
OH	Conesville	1	Table1			4,615	12,546	11,949		597
OH	Conesville	2	Table1			5,360	14,635	13,938		697
OH	Conesville	3	Table1	17,937	11,548	6,029	12,125	11,548		577
OH	Conesville	4	Table1	72,035	83,894	53,463	87,460	83,894		3,566
OH	Eastlake	1	Table1	11,186	10,490	8,551	11,015	10,490		525
OH	Eastlake	2	Table1	11,992	12,441	9,471	13,063	12,441		622
OH	Eastlake	3	Table1	12,985	12,349	10,984	12,966	12,349		617
OH	Eastlake	4	Table1	18,497	19,978	15,906	20,977	19,978		999
OH	Eastlake	5	Table1	56,011	60,129	37,349	63,135	60,129		3,006
OH	Edgewater	11	Substitution	0	0	1,062	0	0		0
OH	Edgewater	12	Substitution	0	0	1,145	0	0		0
OH	Edgewater	13	Table1	7	20	5,536	200	20		180
OH	Gen J M Gavin	1	Table1	15,085	8,717	113,172	9,156	8,717		439
OH	Gen J M Gavin	2	Table1	18,718	6,529	115,070	35,605	6,529		29,076
OH	Gorge	25	Substitution	0	0	2,503	0	0		0
OH	Gorge	26	Substitution	0	0	2,791	0	0		0
OH	J M Stuart	1	Substitution	27,024	24,210	41,189	43,633	24,210		19,423

APPENDIX B-4: EMISSIONS AND ALLOWANCE HOLDINGS OF PHASE I UNITS FOR 1999

State	Plant Name	Stack/Unit ID	Unit Type (a)	SO2 Emissions 1998(b)	SO2 Emissions 1999(b)	1999 Allowances Allocated (c)	Held in Unit Accounts as of 3/1/00	Allowances Deducted for Emissions (d)	Deducted Under Special Phase I Provisions (e)	Allowances Carried Over to 2000
OH	J M Stuart	2	Substitution	29,520	23,091	39,041	36,057	23,091		12,966
OH	J M Stuart	3	Substitution	23,211	25,129	38,712	42,818	25,129		17,689
OH	J M Stuart	4	Substitution	23,603	29,557	40,925	46,727	29,557		17,170
OH	Kyger Creek	CS001 (1, 2, 3, 4, 5)		119,171	135,558					
OH	Kyger Creek	1	Table1			18,773	27,612	27,111		501
OH	Kyger Creek	2	Table1			18,072	27,612	27,111	12	489
OH	Kyger Creek	3	Table1			17,439	27,612	27,112	44	456
OH	Kyger Creek	4	Table1			18,218	27,612	27,112	77	423
OH	Kyger Creek	5	Table1			18,247	27,612	27,112	51	449
OH	Lake Shore	18	Substitution	1,811	1,527	4,508	1,603	1,527		76
OH	Lake Shore	91	Substitution	0	0	44	0	0		0
OH	Lake Shore	92	Substitution	0	0	80	0	0		0
OH	Lake Shore	93	Substitution	0	0	62	0	0		0
OH	Lake Shore	94	Substitution	0	0	102	0	0		0
OH	Miami Fort	CS056 (5-1, 5-2, 6)		19,614	18,199					
OH	Miami Fort	6	Table1			12,475	30,410	14,797		15,613
OH	Miami Fort	7	Table1	36,473	40,559	42,216	56,021	40,559		15,462
OH	Miami Fort	5-1	Table1			417	1,933	1,701		232
OH	Miami Fort	5-2	Table1			417	1,941	1,701		240
OH	Muskingum River	CS014 (1, 2, 3, 4)		152,316	78,543					
OH	Muskingum River	1	Table1			16,312	13,533	12,889		644
OH	Muskingum River	2	Table1			15,533	24,039	22,894		1,145
OH	Muskingum River	3	Table1			15,293	28,020	26,686		1,334
OH	Muskingum River	4	Table1			12,914	16,877	16,074		803
OH	Muskingum River	5	Table1	15,307	22,096	44,364	142,332	22,096		120,236
OH	Niles	XS12 (1, 2)		21,636	19,292					
OH	Niles	1	Table1			7,608	6,799	6,489		310
OH	Niles	2	Table1			9,975	13,416	12,803		613
OH	Picway	9	Table1	13,385	9,385	5,404	9,857	9,385		472
OH	Poston	1	Substitution	0	0	0	0	0		0
OH	Poston	2	Substitution	0	0	0	0	0		0
OH	Poston	3	Substitution	0	0	0	0	0		0
OH	R E Burger	CS0001 (1, 2, 3, 4, 5, 6, 7, 8)		38,543	49,189					
OH	R E Burger	1	Substitution			2,820	0	0		0
OH	R E Burger	2	Substitution			2,751	0	0		0
OH	R E Burger	3	Substitution			2,891	0	0		0
OH	R E Burger	4	Substitution			2,956	0	0		0
OH	R E Burger	5	Table1			3,371	343	343		0

APPENDIX B-4: EMISSIONS AND ALLOWANCE HOLDINGS OF PHASE I UNITS FOR 1999

State	Plant Name	Stack/Unit ID	Unit Type (a)	SO2 Emissions 1998(b)	SO2 Emissions 1999(b)	1999 Allowances Allocated (c)	Held in Unit Accounts as of 3/1/00	Allowances Deducted for Emissions (d)	Deducted Under Special Phase I Provisions (e)	Allowances Carried Over to 2000
OH	R E Burger	6	Table1			3,371	515	493		22
OH	R E Burger	7	Table1			11,818	25,428	24,201		1,227
OH	R E Burger	8	Table1			13,626	25,363	24,152		1,211
OH	Toronto	9	Substitution	0	0	5,315	0	0		0
OH	Toronto	10	Substitution	0	0	9,505	0	0		0
OH	Toronto	11	Substitution	0	0	10,274	0	0		0
OH	W H Sammis	5	Table1	16,812	19,111	26,496	20,066	19,111		955
OH	W H Sammis	6	Table1	20,352	36,395	43,773	38,215	36,395		1,820
OH	W H Sammis	7	Table1	45,828	44,027	47,380	46,486	44,027		2,459
OH	Walter C Beckjord	5	Table1	20,329	14,764	9,811	18,952	14,764		4,188
OH	Walter C Beckjord	6	Table1	39,455	26,050	25,235	43,169	26,050		17,119
PA	Armstrong	1	Table1	18,227	12,471	14,031	14,520	12,471		2,049
PA	Armstrong	2	Table1	17,658	15,125	15,024	15,692	15,125		567
PA	Bruce Mansfield	1	Substitution	7,527	7,491	10,510	8,908	7,491		1,417
PA	Bruce Mansfield	2	Substitution	6,765	9,438	11,537	10,162	9,438		724
PA	Brunner Island	CS102 (1, 2)		48,020	40,437					
PA	Brunner Island	1	Table1			27,030	18,952	17,868		1,084
PA	Brunner Island	2	Table1			30,282	23,686	22,569		1,117
PA	Brunner Island	3	Table1	47,679	30,751	52,404	33,434	30,751		2,683
PA	Cheswick	1	Table1	32,177	41,602	38,139	49,133	41,602		7,531
PA	Conemaugh	1	Table1	3,874	4,472	81,384	12,945	4,472		8,473
PA	Conemaugh	2	Table1	4,347	3,421	91,607	12,398	3,421		8,977
PA	Hatfield's Ferry	XS123 (1, 2, 3)		150,868	141,872					
PA	Hatfield's Ferry	1	Table1			36,835	51,231	50,732		499
PA	Hatfield's Ferry	2	Table1			36,338	36,964	36,599		365
PA	Hatfield's Ferry	3	Table1			39,210	55,096	54,541		555
PA	Martins Creek	CS102 (1, 2)		15,834	13,972					
PA	Martins Creek	1	Table1			12,327	7,551	7,112		439
PA	Martins Creek	2	Table1			12,483	7,451	6,860		591
PA	Martins Creek	3	Substitution	4,742	2,248	12,553	2,562	2,248		314
PA	Martins Creek	4	Substitution	4,347	3,310	11,548	3,779	3,310		469
PA	Mitchell	33	Substitution	1,050	994	1,101	1,272	994		278
PA	New Castle	1	Substitution	0	0	1,367	105	0		105
PA	New Castle	2	Substitution	0	0	1,520	117	0		117
PA	Portland	1	Table1	9,772	11,220	5,784	66,448	11,220		55,228
PA	Portland	2	Table1	12,126	15,099	9,961	18,640	15,099		3,541
PA	Shawville	1	Table1	12,864	10,974	10,048	11,082	10,974		108
PA	Shawville	2	Table1	12,365	12,853	10,048	13,106	12,853		253

APPENDIX B-4: EMISSIONS AND ALLOWANCE HOLDINGS OF PHASE I UNITS FOR 1999

State	Plant Name	Stack/Unit ID	Unit Type (a)	SO2 Emissions 1998(b)	SO2 Emissions 1999(b)	1999 Allowances Allocated (c)	Held in Unit Accounts as of 3/1/00	Allowances Deducted for Emissions (d)	Deducted Under Special Phase I Provisions (e)	Allowances Carried Over to 2000
PA	Shawville	CS1 (3, 4)		33,535	27,959					
PA	Shawville	3	Table1			13,846	15,486	15,380		106
PA	Shawville	4	Table1			13,700	12,850	12,579		271
PA	Sunbury	3	Table1	10,307	6,099	8,530	16,030	6,099		9,931
PA	Sunbury	4	Table1	11,970	7,480	11,149	13,649	7,480		6,169
TN	Allen	1	Table1	5,671	3,997	14,917	34,438	3,997		30,441
TN	Allen	2	Table1	7,378	4,393	16,329	36,556	4,393		32,163
TN	Allen	3	Table1	7,162	5,291	15,258	37,436	5,291		32,145
TN	Cumberland	1	Table1	10,610	7,070	114,325	235,645	7,070		228,575
TN	Cumberland	2	Table1	9,891	8,851	126,157	245,652	8,851		236,801
TN	DuPont Johnsonville	JVD1	Opt-In	0	0	1,778	0	0		0
TN	DuPont Johnsonville	JVD2	Opt-In	0	0	1,778	0	0		0
TN	DuPont Johnsonville	JVD3	Opt-In	0	0	1,777	0	0		0
TN	DuPont Johnsonville	JVD4	Opt-In	0	0	1,777	0	0		0
TN	Gallatin	CSGA12 (1, 2)		40,664	37,124					
TN	Gallatin	1	Table1			17,400	22,849	19,615		3,234
TN	Gallatin	2	Table1			16,855	19,909	17,509		2,400
TN	Gallatin	CSGA34 (3, 4)		45,551	47,717					
TN	Gallatin	3	Table1			19,493	28,229	24,483		3,746
TN	Gallatin	4	Table1			20,701	26,427	23,234		3,193
TN	Johnsonville	CSJO10 (1, 2, 3, 4, 5, 6, 7, 8, 9, 10)		114,588	119,778					
TN	Johnsonville	1	Table1			7,585	14,063	12,089		1,974
TN	Johnsonville	2	Table1			7,828	13,454	12,323		1,131
TN	Johnsonville	3	Table1			8,189	15,409	10,974		4,435
TN	Johnsonville	4	Table1			7,780	13,348	12,261		1,087
TN	Johnsonville	5	Table1			8,023	11,230	10,833		397
TN	Johnsonville	6	Table1			7,682	11,906	11,004		902
TN	Johnsonville	7	Table1			8,744	13,981	12,640		1,341
TN	Johnsonville	8	Table1			8,471	13,728	10,353		3,375
TN	Johnsonville	9	Table1			6,894	17,190	15,320		1,870
TN	Johnsonville	10	Table1			7,351	14,804	11,981		2,823
WI	Alma	CS2 (B1, B2, B3)		1,287	757					
WI	Alma	B1	Opt-In			537	608	273		335
WI	Alma	B2	Opt-In			518	612	232		380
WI	Alma	B3	Opt-In			455	513	252		261
WI	Alma	CS1 (B1, B2, B3, B4, B5)		6,517	3,060					
WI	Alma	B4	Substitution			2,207	8,714	1,329		7,385
WI	Alma	B5	Substitution			3,624	18,226	1,731		16,495

APPENDIX B-4: EMISSIONS AND ALLOWANCE HOLDINGS OF PHASE I UNITS FOR 1999

State	Plant Name	Stack/Unit ID	Unit Type (a)	SO2	SO2	1999	Held in	Allowances	Deducted Under	Allowances
				Emissions 1998(b)	Emissions 1999(b)	Allowances Allocated (c)	Unit Accounts as of 3/1/00	Deducted for Emissions (d)	Special Phase I Provisions (e)	Carried Over to 2000
WI	Edgewater	3	Substitution	1,973	1,356	4,493	15,786	1,356		14,430
WI	Edgewater	4	Table1	8,391	6,624	24,099	36,598	6,624		29,974
WI	Genoa	1	Table1	9,031	12,513	22,103	41,191	12,513		28,678
WI	J P Madgett	B1	Substitution	5,223	5,333	6,407	12,885	5,333		7,552
WI	Nelson Dewey	CS1 (1, 2)		10,861	13,280					
WI	Nelson Dewey	1	Table1			5,852	12,247	6,594		5,653
WI	Nelson Dewey	2	Table1			6,504	14,617	6,686		7,931
WI	North Oak Creek	1	Table1	0	0	5,083	0	0		0
WI	North Oak Creek	2	Table1	0	0	5,005	0	0		0
WI	North Oak Creek	3	Table1	0	0	5,229	0	0		0
WI	North Oak Creek	4	Table1	0	0	6,154	0	0		0
WI	Pulliam	CS56 (5, 6)		1,884	2,278					
WI	Pulliam	5	Substitution			2,097	1,050	912		138
WI	Pulliam	6	Substitution			2,844	1,570	1,366		204
WI	Pulliam	7	Substitution	1,569	1,264	7,317	1,400	1,264		136
WI	Pulliam	8	Table1	2,283	2,196	7,312	2,500	2,196		304
WI	Rock River	1	Substitution	1,532	656	5,398	20,924	656		20,268
WI	Rock River	2	Substitution	1,898	741	4,034	13,673	741		12,932
WI	South Oak Creek	CS3 (5, 6)		16,781	15,736					
WI	South Oak Creek	5	Table1			9,416	10,064	8,469		1,595
WI	South Oak Creek	6	Table1			11,723	12,753	7,267		5,486
WI	South Oak Creek	CS4 (7, 8)		26,529	17,153					
WI	South Oak Creek	7	Table1			15,754	17,147	8,659		8,488
WI	South Oak Creek	8	Table1			15,375	16,634	8,494		8,140
WI	Weston	1	Substitution	1,111	1,263	1,579	1,500	1,263		237
WI	Weston	2	Substitution	1,922	1,778	3,580	2,000	1,778		222
WV	Albright	1	Substitution	2,202	2,500	4,831	3,634	2,500		1,134
WV	Albright	2	Substitution	1,929	2,523	5,024	3,041	2,523		518
WV	Albright	3	Table1	7,228	11,640	11,684	13,390	11,640		1,750
WV	Fort Martin	1	Table1	41,641	50,943	40,496	51,452	50,943		509
WV	Fort Martin	2	Table1	37,663	48,158	40,116	48,640	48,158		482
WV	Harrison	XS123 (1, 2, 3)		6,934	6,835					
WV	Harrison	1	Table1			68,078	2,422	2,009		413
WV	Harrison	2	Table1			64,488	2,090	2,029		61
WV	Harrison	3	Table1			57,730	2,825	2,797		28
WV	Kammer	CS013 (1, 2, 3)		108,618	104,231					
WV	Kammer	1	Table1			18,247	32,444	30,899		1,545
WV	Kammer	2	Table1			18,948	41,313	39,346		1,967

APPENDIX B-4: EMISSIONS AND ALLOWANCE HOLDINGS OF PHASE I UNITS FOR 1999

State	Plant Name	Stack/Unit ID	Unit Type (a)	SO2 Emissions 1998(b)	SO2 Emissions 1999(b)	1999 Allowances Allocated (c)	Held in Unit Accounts as of 3/1/00	Allowances Deducted for Emissions (d)	Deducted Under Special Phase I Provisions (e)	Allowances Carried Over to 2000
WV	Kammer	3	Table1			16,932	35,447	33,986		1,461
WV	Mitchell	CS012 (1, 2)		59,330	55,046					
WV	Mitchell	1	Table1			42,823	44,242	27,022		17,220
WV	Mitchell	2	Table1			44,312	45,859	28,024		17,835
WV	Mt Storm	CS0 (1, 2)		106,759	101,124					
WV	Mt Storm	1	Table1			42,570	103,790	50,562		53,228
WV	Mt Storm	2	Table1			34,644	77,853	50,562		27,291
WV	Mt Storm	3	Table1	4,576	3,481	56,589	108,656	3,481		105,175
WV	Rivesville	7	Substitution	624	444	1,009	1,066	444		622
WV	Rivesville	8	Substitution	1,995	2,954	3,059	2,984	2,954		30

NOTES:

- (a) Identifies the affected unit as listed in Table 1, or as a substitution, compensating, or opt-in unit.
- (b) Both 1998 and 1999 emissions appear as reported by CEMS under the Acid Rain Program.
- (c) This column lists allowances allocated under the following provisions: Initial Allocation (to Table 1 units), allowances for substitution and compensating units, Phase I Extension Allowances, Early Reduction Credits, and Conservation allowances.
- (d) This column displays the 1999 emissions for units that are not connected to a common stack. For units sharing a common stack, an apportionment was made either by the unit or by EPA to divide up the stack's emissions among the units sharing the stack.
- (e) This column displays the sum of allowance deductions made for underutilization and state cap provisions.

APPENDIX C

Appendix C-1: List of Averaging Plans and Results in 1999

Appendix C-2: Compliance Results for the 265 NO_x Affected Units in 1999

Appendix C-3: Compliance Results for the 274 Early Election Units in 1999

Appendix C-1: List of Averaging Plans and Results in 1999

Company	ORIS Code	Plant Name, State and Units	Plant Limit	Plan Rate
AES Greenidge LLC	2527	Greenidge NY 6	0.45	0.30
	2535	Milliken NY 1, 2		
Allegheny Energy Supply	3942	Albright WV 1-3	0.49	0.45
	3178	Armstrong PA 1, 2		
	3944	Harrison WV 1-3		
	3943	Fort Martin WV 1		
	3181	Mitchell PA 33		
	6004	Pleasants PA 1, 2		
	1570	R P Smith PA 9, 11		
Ameren Services	862	Grand Tower IL 07-09	0.45	0.32
	863	Hutsonville IL 05, 06		
	864	Meredosia IL 01-05		
	6017	Newton IL 1, 2		
Ameren Services	2103	Labadie MO 1-4	0.45	0.18
	2104	Meramec MO 1-4		
	6155	Rush Island MO 1, 2		
Cinergy Corp.	1001	Cayuga IN 1, 2	0.48	0.42
	6018	East Bend 2		
	6113	Gibson IN 1-4		
	2832	Miami Fort OH 6		
	1008	R Gallagher IN 1-4		
	1010	Wabash River IN 2, 3, 5, 6		
	2830	Walter C Beckjord 5, 6		

Appendix C-1: List of Averaging Plans and Results in 1999

<u>Company</u>	<u>ORIS Code</u>	<u>Plant Name, State and Units</u>	<u>Plant Limit</u>	<u>Plan Rate</u>
Dairyland Power Cooperative	4140	Alma WI B4, B5	0.48	0.43
	4143	Genoa WI 1		
	4271	J P Madgett WI B1		
Dynergy Midwest Generation, Inc.	889	Baldwin IL 3	0.45	0.40
	892	Hennepin IL 2		
	897	Vermilion IL 1, 2		
East Kentucky Power Cooperative	1384	Cooper KY 1, 2	0.50	0.42
FirstEnergy Corporation	6094	Bruce Mansfield PA 1, 2	0.50	0.43
	2857	Edgewater OH 13		
	2858	Gorge OH 25, 26		
	3138	New Castle PA 1, 2		
	2867	Toronto OH 10, 11		
	2864	R E Burger OH 7, 8		
	2866	W H Sammis OH 5, 6		
Hoosier Energy Rec., Inc.	1043	Frank E Ratts IN 1SG1, 2SG1	0.50	0.47
IES Utilities, Inc.	1104	Burlington IA 1	0.47	0.29
	1073	Prairie Creek IA 4		

Appendix C-1: List of Averaging Plans and Results in 1999

<u>Company</u>	<u>ORIS Code</u>	<u>Plant Name, State and Units</u>	<u>Plant Limit</u>	<u>Plan Rate</u>
Indianapolis Power & Light	990	Elmer W Stout IN 50, 60, 70	0.45	0.35
	991	H T Pritchard IN 3-6		
	994	Petersburg IN 1-4		
LG&E Energy Corporation	1355	E W Brown KY 1-3	0.46	0.41
	1356	Ghent KY 1		
	1357	Green River KY 5		
Northern States Power Company	1912	High Bridge MN 3-6	0.46	0.31
	6090	Sherburne County MN 1, 2		
PP&L	3140	Brunner Island PA 1-3	0.46	0.36
	3148	Martins Creek PA 1, 2		
	3152	Sunbury PA 3, 4		
Sithe	3113	Portland PA 1, 2	0.45	0.26
South Mississippi Elec. Power Assoc.	6061	R D Morrow MS 1, 2	0.50	0.46

Appendix C-1: List of Averaging Plans and Results in 1999

Company	ORIS Code	Plant Name, State and Units	Plant Limit	Plan Rate
Southern Company	699	Arkwright GA 1-4	0.46	0.44
	703	Bowen GA 1BLR - 4BLR		
	641	Crist FL 4-7		
	26	E C Gaston AL 1-5		
	7	Gadsden AL 1-2		
	708	Hammond GA 1-4		
	709	Harlee Branch GA 2		
	710	Jack McDonough GA MB1, MB2		
	2049	Jack Watson MS 4, 5		
	733	Kraft GA 1-3		
	6124	McIntosh GA 1		
	727	Mitchell GA 3		
	6257	Scherer GA 3		
	6052	Wansley GA 1, 2		
	728	Yates GA Y1BR - Y7BR		
	642	Scholz FL1, 2		
6073	Victor J Daniel Jr MS 1, 2			
Springfield (MO), City Utilities of	2161	James River MO 3-5	0.50	0.44
	6195	Southwest MO 1		
TVA	47	Colbert AL 1-5	0.48	0.42
	3403	Gallatin TN 1-4		
	3406	Johnsonville TN 1-10		
Wisconsin Electric Power Company	4040	Port Washington WI 1-4	0.48	0.35

Appendix C-1: List of Averaging Plans and Results in 1999

<u>Company</u>	<u>ORIS Code</u>	<u>Plant Name, State and Units</u>	<u>Plant Limit</u>	<u>Plan Rate</u>
	4041	South Oak Creek WI 5-8		
	4042	Valley (WEPCO) WI 1-4		
Wisconsin Public Service Corp.	4072	Pulliam WI 7, 8	0.47	0.33
	4078	Weston WI 1-3		

Appendix C-2: Compliance Results for the 265 Phase I NO_x Affected Units in 1999

ST	Plant Name	Operating Utility	ORIS			1999				1990 Emission Rate	Change from 1990 to 1999
						Emission Limit	Actual Emission Rate	AEL or Avg. Plan Limit	Actual Avg. Plan Rate		
AL	Colbert	TVA	47	1	Averaging Plan	0.50	0.44	0.47	0.42	0.80	-45%
AL	Colbert	TVA	47	2	Averaging Plan	0.50	0.44	0.47	0.42	0.67	-34%
AL	Colbert	TVA	47	3	Averaging Plan	0.50	0.44	0.47	0.42	0.83	-47%
AL	Colbert	TVA	47	4	Averaging Plan	0.50	0.44	0.47	0.42	0.86	-49%
AL	Colbert	TVA	47	5	Averaging Plan	0.50	0.40	0.47	0.42	0.78	-49%
AL	E C Gaston	Alabama Power Co	26	1	Averaging Plan	0.50	0.50	0.46	0.44	0.90	-44%
AL	E C Gaston	Alabama Power Co	26	2	Averaging Plan	0.50	0.50	0.46	0.44	0.78	-36%
AL	E C Gaston	Alabama Power Co	26	3	Averaging Plan	0.50	0.47	0.46	0.44	0.80	-41%
AL	E C Gaston	Alabama Power Co	26	4	Averaging Plan	0.50	0.47	0.46	0.44	0.80	-41%
AL	E C Gaston	Alabama Power Co	26	5	Averaging Plan	0.45	0.40	0.46	0.44	0.78	-49%
AL	Gadsden	Alabama Power Co	7	1	Averaging Plan	0.45	0.61	0.46	0.44	0.51	19%
AL	Gadsden	Alabama Power Co	7	2	Averaging Plan	0.45	0.63	0.46	0.44	0.56	12%
FL	Big Bend	Tampa Electric Co	645	BB04	Standard Limitation	0.45	0.44			0.46	-5%
FL	Crist	Gulf Power Co	641	4	Averaging Plan	0.45	0.41	0.46	0.44	0.43	-4%
FL	Crist	Gulf Power Co	641	5	Averaging Plan	0.45	0.48	0.46	0.44	0.49	-2%
FL	Crist	Gulf Power Co	641	6	Averaging Plan	0.50	0.49	0.46	0.44	1.04	-53%
FL	Crist	Gulf Power Co	641	7	Averaging Plan	0.50	0.52	0.46	0.44	1.16	-55%
FL	Scholz	Gulf Power Co	642	1	Averaging Plan	0.50	0.66	0.46	0.44	0.69	-4%
FL	Scholz	Gulf Power Co	642	2	Averaging Plan	0.50	0.67	0.46	0.44	0.80	-16%
GA	Arkwright	Georgia Power Co	699	1	Averaging Plan	0.45	0.74	0.46	0.44	0.90	-18%
GA	Arkwright	Georgia Power Co	699	2	Averaging Plan	0.45	0.74	0.46	0.44	0.90	-18%
GA	Arkwright	Georgia Power Co	699	3	Averaging Plan	0.50	0.74	0.46	0.44	0.90	-18%
GA	Arkwright	Georgia Power Co	699	4	Averaging Plan	0.50	0.74	0.46	0.44	0.90	-18%
GA	Bowen	Georgia Power Co	703	1BLR	Averaging Plan	0.45	0.42	0.46	0.44	0.67	-37%
GA	Bowen	Georgia Power Co	703	2BLR	Averaging Plan	0.45	0.43	0.46	0.44	0.65	-34%
GA	Bowen	Georgia Power Co	703	3BLR	Averaging Plan	0.45	0.42	0.46	0.44	0.56	-25%
GA	Bowen	Georgia Power Co	703	4BLR	Averaging Plan	0.45	0.42	0.46	0.44	0.58	-28%
GA	Hammond	Georgia Power Co	708	1	Averaging Plan	0.50	0.78	0.46	0.44	0.84	-7%
GA	Hammond	Georgia Power Co	708	2	Averaging Plan	0.50	0.78	0.46	0.44	0.84	-7%
GA	Hammond	Georgia Power Co	708	3	Averaging Plan	0.50	0.78	0.46	0.44	0.84	-7%

Appendix C-2: Compliance Results for the 265 Phase I NO_x Affected Units in 1999

ST	Plant Name	Operating Utility	ORIS Code	Boiler	Compliance Approach	1999				1990 Emission Rate	Change from 1990 to 1999
						Emission Limit	Actual Emission Rate	AEL or Avg. Plan Limit	Actual Avg. Plan Rate		
GA	Hammond	Georgia Power Co	708	4	Averaging Plan	0.50	0.45	0.46	0.44	1.20	-63%
GA	Harlee Branch	Georgia Power Co	709	2	Averaging Plan	0.50	0.69	0.46	0.44	0.99	-30%
GA	Jack McDonough	Georgia Power Co	710	MB1	Averaging Plan	0.45	0.33	0.46	0.44	0.66	-50%
GA	Jack McDonough	Georgia Power Co	710	MB2	Averaging Plan	0.45	0.33	0.46	0.44	0.60	-45%
GA	Kraft	Savannah Electric & Power	733	1	Averaging Plan	0.45	0.55	0.46	0.44	0.40	39%
GA	Kraft	Savannah Electric & Power	733	2	Averaging Plan	0.45	0.55	0.46	0.44	0.40	39%
GA	Kraft	Savannah Electric & Power	733	3	Averaging Plan	0.45	0.55	0.46	0.44	0.40	39%
GA	Mcintosh	Savannah Electric & Power	6124	1	Averaging Plan	0.50	0.81	0.46	0.44	0.83	-3%
GA	Mitchell	Georgia Power Co	727	3	Averaging Plan	0.45	0.57	0.46	0.44	0.61	-7%
GA	Scherer	Georgia Power Co	6257	3	Averaging Plan	0.45	0.26	0.46	0.44	0.20	29%
GA	Wansley	Georgia Power Co	6052	1	Averaging Plan	0.45	0.41	0.46	0.44	0.73	-44%
GA	Wansley	Georgia Power Co	6052	2	Averaging Plan	0.45	0.41	0.46	0.44	0.67	-39%
GA	Yates	Georgia Power Co	728	Y1BR	Averaging Plan	0.45	0.40	0.46	0.44	0.56	-29%
GA	Yates	Georgia Power Co	728	Y2BR	Averaging Plan	0.45	0.44	0.46	0.44	0.62	-29%
GA	Yates	Georgia Power Co	728	Y3BR	Averaging Plan	0.45	0.44	0.46	0.44	0.62	-29%
GA	Yates	Georgia Power Co	728	Y4BR	Averaging Plan	0.45	0.37	0.46	0.44	0.56	-34%
GA	Yates	Georgia Power Co	728	Y5BR	Averaging Plan	0.45	0.37	0.46	0.44	0.65	-43%
GA	Yates	Georgia Power Co	728	Y6BR	Averaging Plan	0.45	0.29	0.46	0.44	0.67	-57%
GA	Yates	Georgia Power Co	728	Y7BR	Averaging Plan	0.45	0.29	0.46	0.44	0.61	-52%
IA	Burlington	IES Utilities, Inc.	1104	1	Averaging Plan	0.45	0.22	0.47	0.29	0.63	-65%
IA	Milton L Kapp	Interstate Power Co	1048	2	Standard Limitation	0.45	0.33			0.80	-59%
IA	Prairie Creek	IES Utilities, Inc.	1073	4	Averaging Plan	0.50	0.38	0.47	0.29	1.05	-64%
IA	Riverside	MidAmerican Energy Company	1081	9	Standard Limitation	0.45	0.33			0.82	-60%
IL	Baldwin	Illinova Power Marketing, Inc.	889	3	Averaging Plan	0.45	0.34	0.45	0.40	0.67	-49%
IL	Grand Tower	CIPSCO	862	7	Averaging Plan	0.50	0.72	0.45	0.32	0.78	-7%
IL	Grand Tower	CIPSCO	862	8	Averaging Plan	0.50	0.8	0.45	0.32	0.96	-17%
IL	Grand Tower	CIPSCO	862	9	Averaging Plan	0.50	0.65	0.45	0.32	0.64	-2%
IL	Hennepin	Illinova Power Marketing, Inc.	892	2	Averaging Plan	0.45	0.53	0.45	0.40	0.59	-10%
IL	Hutsonville	CIPSCO	863	5	Averaging Plan	0.45	0.56	0.45	0.32	0.70	-20%
IL	Hutsonville	CIPSCO	863	6	Averaging Plan	0.45	0.60	0.45	0.32	0.67	-10%

Appendix C-2: Compliance Results for the 265 Phase I NO_x Affected Units in 1999

ST	Plant Name	Operating Utility	ORIS Code	Boiler	Compliance Approach	1999				Change from 1990 to 1999	
						Emission Limit	Actual Emission Rate	AEL or Avg. Plan Limit	Actual Avg. Plan Rate		1990 Emission Rate
IL	Joppa Steam	Electric Energy Inc	887	1	Standard Limitation	0.45	0.18			0.56	-68%
IL	Joppa Steam	Electric Energy Inc	887	2	Standard Limitation	0.45	0.18			0.56	-68%
IL	Joppa Steam	Electric Energy Inc	887	3	Standard Limitation	0.45	0.18			0.56	-68%
IL	Joppa Steam	Electric Energy Inc	887	4	Standard Limitation	0.45	0.18			0.56	-68%
IL	Joppa Steam	Electric Energy Inc	887	5	Standard Limitation	0.45	0.17			0.56	-70%
IL	Joppa Steam	Electric Energy Inc	887	6	Standard Limitation	0.45	0.17			0.56	-70%
IL	Meredosia	CIPSCO	864	1	Averaging Plan	0.45	0.53	0.45	0.32	0.50	5%
IL	Meredosia	CIPSCO	864	2	Averaging Plan	0.45	0.53	0.45	0.32	0.50	5%
IL	Meredosia	CIPSCO	864	3	Averaging Plan	0.45	0.53	0.45	0.32	0.50	5%
IL	Meredosia	CIPSCO	864	4	Averaging Plan	0.45	0.53	0.45	0.32	0.50	5%
IL	Meredosia	CIPSCO	864	5	Averaging Plan	0.45	0.55	0.45	0.32	0.67	-18%
IL	Newton	CIPSCO	6017	1	Averaging Plan	0.45	0.17	0.45	0.32	0.47	-64%
IL	Newton	CIPSCO	6017	2	Averaging Plan	0.45	0.29	0.45	0.32	0.39	-26%
IL	Vermilion	Illinova Power Marketing, Inc.	897	1	Averaging Plan	0.45	0.45	0.45	0.40	0.94	-52%
IL	Vermilion	Illinova Power Marketing, Inc.	897	2	Averaging Plan	0.45	0.45	0.45	0.40	0.74	-39%
IN	Cayuga	PSI Energy, Inc.	1001	1	Averaging Plan	0.45	0.31	0.48	0.42	0.42	-26%
IN	Cayuga	PSI Energy, Inc.	1001	2	Averaging Plan	0.45	0.33	0.48	0.42	0.47	-30%
IN	Elmer W Stout	Indianapolis Power & Light	990	50	Averaging Plan	0.45	0.37	0.45	0.35	0.63	-41%
IN	Elmer W Stout	Indianapolis Power & Light	990	60	Averaging Plan	0.45	0.38	0.45	0.35	0.65	-42%
IN	Elmer W Stout	Indianapolis Power & Light	990	70	Averaging Plan	0.45	0.37	0.45	0.35	0.71	-48%
IN	F B Culley	Southern Indiana Gas & Elec	1012	2	Standard Limitation	0.50	0.45			1.05	-57%
IN	F B Culley	Southern Indiana Gas & Elec	1012	3	Standard Limitation	0.50	0.45			1.23	-64%
IN	Frank E Ratts	Hoosier Energy REC, Inc.	1043	1SG1	Averaging Plan	0.50	0.48	0.50	0.47	1.08	-56%
IN	Frank E Ratts	Hoosier Energy REC, Inc.	1043	2SG1	Averaging Plan	0.50	0.47	0.50	0.47	1.09	-57%
IN	Gibson	PSI Energy, Inc.	6113	1	Averaging Plan	0.50	0.45	0.48	0.42	1.03	-56%
IN	Gibson	PSI Energy, Inc.	6113	2	Averaging Plan	0.50	0.45	0.48	0.42	1.12	-60%
IN	Gibson	PSI Energy, Inc.	6113	3	Averaging Plan	0.50	0.46	0.48	0.42	0.52	-12%
IN	Gibson	PSI Energy, Inc.	6113	4	Averaging Plan	0.50	0.41	0.48	0.42	0.66	-38%
IN	H T Pritchard	Indianapolis Power & Light	991	3	Averaging Plan	0.45	0.68	0.45	0.35	0.74	-8%
IN	H T Pritchard	Indianapolis Power & Light	991	4	Averaging Plan	0.45	0.68	0.45	0.35	0.74	-8%

Appendix C-2: Compliance Results for the 265 Phase I NO_x Affected Units in 1999

ST	Plant Name	Operating Utility	ORIS Code	Boiler	Compliance Approach	1999				1990 Emission Rate	Change from 1990 to 1999
						Emission Limit	Actual Emission Rate	AEL or Avg. Plan Limit	Actual Avg. Plan Rate		
IN	H T Pritchard	Indianapolis Power & Light	991	5	Averaging Plan	0.45	0.37	0.45	0.35	0.67	-45%
IN	H T Pritchard	Indianapolis Power & Light	991	6	Averaging Plan	0.45	0.37	0.45	0.35	0.47	-21%
IN	Petersburg	Indianapolis Power & Light	994	1	Averaging Plan	0.45	0.26	0.45	0.35	0.56	-53%
IN	Petersburg	Indianapolis Power & Light	994	2	Averaging Plan	0.45	0.33	0.45	0.35	0.63	-48%
IN	Petersburg	Indianapolis Power & Light	994	3	Averaging Plan	0.45	0.33	0.45	0.35	0.37	-11%
IN	Petersburg	Indianapolis Power & Light	994	4	Averaging Plan	0.45	0.32	0.45	0.35	0.37	-14%
IN	R Gallagher	PSI Energy, Inc.	1008	1	Averaging Plan	0.50	0.46	0.48	0.42	0.74	-38%
IN	R Gallagher	PSI Energy, Inc.	1008	2	Averaging Plan	0.50	0.46	0.48	0.42	0.95	-52%
IN	R Gallagher	PSI Energy, Inc.	1008	3	Averaging Plan	0.50	0.42	0.48	0.42	0.95	-56%
IN	R Gallagher	PSI Energy, Inc.	1008	4	Averaging Plan	0.50	0.42	0.48	0.42	0.95	-56%
IN	Wabash River	PSI Energy, Inc.	1010	1	Standard Limitation	0.50	0.15			0.52	-71%
IN	Wabash River	PSI Energy, Inc.	1010	2	Averaging Plan	0.50	0.49	0.48	0.42	0.95	-48%
IN	Wabash River	PSI Energy, Inc.	1010	3	Averaging Plan	0.50	0.57	0.48	0.42	0.92	-38%
IN	Wabash River	PSI Energy, Inc.	1010	5	Averaging Plan	0.50	0.49	0.48	0.42	0.85	-42%
IN	Wabash River	PSI Energy, Inc.	1010	6	Averaging Plan	0.45	0.38	0.48	0.42	0.37	2%
KS	La Cygne	Kansas City Power & Light	1241	2	Standard Limitation	0.50	0.29			0.29	0%
KS	Quindaro	Board of Public Util, KS City	1295	2	Standard Limitation	0.50	0.38			0.64	-40%
KY	Coleman	Big Rivers Electric	1381	C1	Standard Limitation	0.50	0.44			1.41	-69%
KY	Coleman	Big Rivers Electric	1381	C2	Standard Limitation	0.50	0.45			1.29	-65%
KY	Coleman	Big Rivers Electric	1381	C3	Standard Limitation	0.50	0.44			1.14	-61%
KY	Cooper	East Kentucky Power Coop	1384	1	Averaging Plan	0.50	0.42	0.50	0.42	0.90	-53%
KY	Cooper	East Kentucky Power Coop	1384	2	Averaging Plan	0.50	0.42	0.50	0.42	0.90	-53%
KY	E W Brown	Kentucky Utilities Co	1355	1	Averaging Plan	0.50	0.50	0.46	0.41	1.00	-50%
KY	E W Brown	Kentucky Utilities Co	1355	2	Averaging Plan	0.45	0.40	0.46	0.41	0.59	-32%
KY	E W Brown	Kentucky Utilities Co	1355	3	Averaging Plan	0.45	0.40	0.46	0.41	0.57	-30%
KY	East Bend	Cincinnati Gas & Electric Co	6018	2	Averaging Plan	0.50	0.41	0.48	0.42	0.31	32%
KY	Elmer Smith	Owensboro City of	1374	2	Standard Limitation	0.45	0.41			0.86	-52%
KY	Ghent	Kentucky Utilities Co	1356	1	Averaging Plan	0.45	0.41	0.46	0.41	0.56	-27%
KY	Green River	Kentucky Utilities Co	1357	5	Averaging Plan	0.50	0.41	0.46	0.41	0.84	-51%
KY	H L Spurlock	East Kentucky Power Coop	6041	1	Standard Limitation	0.50	0.42			0.90	-53%

Appendix C-2: Compliance Results for the 265 Phase I NO_x Affected Units in 1999

ST	Plant Name	Operating Utility	ORIS Code	Boiler	Compliance Approach	1999				Change from 1990 to 1999	
						Emission Limit	Actual Emission Rate	AEL or Avg. Plan Limit	Actual Avg. Plan Rate		1990 Emission Rate
KY	HMP&L Station 2	WKE Station Two, Inc.	1382	H1	Standard Limitation	0.50	0.48			1.34	-64%
KY	HMP&L Station 2	WKE Station Two, Inc.	1382	H2	Standard Limitation	0.50	0.48			1.34	-64%
KY	R D Green	Big Rivers Electric	6639	G1	Standard Limitation	0.50	0.41			0.41	0%
KY	R D Green	Big Rivers Electric	6639	G2	Standard Limitation	0.50	0.41			0.45	-9%
MD	Chalk Point	PEPCO	1571	1	AEL Demonstration	0.50	0.76	0.86		1.35	-44%
MD	Chalk Point	PEPCO	1571	2	AEL Demonstration	0.50	0.81	1.20		1.35	-40%
MD	Morgantown	PEPCO	1573	1	AEL Demonstration	0.45	0.63	0.70		0.95	-34%
MD	Morgantown	PEPCO	1573	2	AEL Demonstration	0.45	0.61	0.70		0.95	-36%
MD	R P Smith	Potomac Edison Co	1570	9	Averaging Plan	0.50	0.46	0.49	0.45	0.87	-47%
MD	R P Smith	Potomac Edison Co	1570	11	Averaging Plan	0.45	0.41	0.49	0.45	0.78	-47%
MI	J H Campbell	Consumers Energy Co	1710	1	AEL Demonstration	0.45	0.46	0.55		0.69	-33%
MN	High Bridge	Northern States Power Co	1912	3	Averaging Plan	0.50	0.55	0.46	0.31	0.48	15%
MN	High Bridge	Northern States Power Co	1912	4	Averaging Plan	0.50	0.55	0.46	0.31	0.48	15%
MN	High Bridge	Northern States Power Co	1912	5	Averaging Plan	0.50	0.55	0.46	0.31	0.48	15%
MN	High Bridge	Northern States Power Co	1912	6	Averaging Plan	0.50	0.55	0.46	0.31	0.48	15%
MN	Sherburne County	Northern States Power Co	6090	1	Averaging Plan	0.45	0.27	0.46	0.31	0.45	-40%
MN	Sherburne County	Northern States Power Co	6090	2	Averaging Plan	0.45	0.27	0.46	0.31	0.45	-40%
MO	Hawthorn	Kansas City Power & Light	2079	5	Standard Limitation	0.45	0.35			0.36	-3%
MO	Iatan	Kansas City Power & Light	6065	1	Standard Limitation	0.50	0.28			0.31	-9%
MO	James River	Springfield City of (MO)	2161	3	Averaging Plan	0.50	0.55	0.50	0.44	1.02	-46%
MO	James River	Springfield City of (MO)	2161	4	Averaging Plan	0.50	0.52	0.50	0.44	0.87	-40%
MO	James River	Springfield City of (MO)	2161	5	Averaging Plan	0.50	0.58	0.50	0.44	0.93	-38%
MO	Labadie	Union Electric Co	2103	1	Averaging Plan	0.45	0.13	0.45	0.18	0.62	-79%
MO	Labadie	Union Electric Co	2103	2	Averaging Plan	0.45	0.14	0.45	0.18	0.62	-77%
MO	Labadie	Union Electric Co	2103	3	Averaging Plan	0.45	0.14	0.45	0.18	0.62	-77%
MO	Labadie	Union Electric Co	2103	4	Averaging Plan	0.45	0.15	0.45	0.18	0.62	-76%
MO	Meramec	Union Electric Co	2104	1	Averaging Plan	0.45	0.46	0.45	0.18	0.82	-44%
MO	Meramec	Union Electric Co	2104	2	Averaging Plan	0.45	0.38	0.45	0.18	0.63	-39%
MO	Meramec	Union Electric Co	2104	3	Averaging Plan	0.50	0.57	0.45	0.18	0.96	-40%
MO	Meramec	Union Electric Co	2104	4	Averaging Plan	0.50	0.33	0.45	0.18	1.17	-72%

Appendix C-2: Compliance Results for the 265 Phase I NO_x Affected Units in 1999

ST	Plant Name	Operating Utility	ORIS Code	Boiler	Compliance Approach	1999				1990 Emission Rate	Change from 1990 to 1999
						Emission Limit	Actual Emission Rate	AEL or Avg. Plan Limit	Actual Avg. Plan Rate		
MO	Montrose	Kansas City Power & Light	2080	1	Standard Limitation	0.45	0.33			0.32	2%
MO	Montrose	Kansas City Power & Light	2080	2	Standard Limitation	0.45	0.40			0.34	17%
MO	Montrose	Kansas City Power & Light	2080	3	Standard Limitation	0.45	0.40			0.34	17%
MO	Rush Island	Union Electric Co	6155	1	Averaging Plan	0.45	0.15	0.45	0.18	0.63	-76%
MO	Rush Island	Union Electric Co	6155	2	Averaging Plan	0.45	0.14	0.45	0.18	0.63	-78%
MO	Southwest	Springfield City of (MO)	6195	1	Averaging Plan	0.50	0.32	0.50	0.44	0.47	-32%
MO	Thomas Hill	Associated Electric Coop Inc	2168	MB3	Standard Limitation	0.50	0.31			0.31	0%
MS	Jack Watson	Mississippi Power Co	2049	4	Averaging Plan	0.50	0.51	0.46	0.44	1.10	-54%
MS	Jack Watson	Mississippi Power Co	2049	5	Averaging Plan	0.50	0.69	0.46	0.44	1.22	-43%
MS	R D Morrow	South Mississippi Electric Pwr	6061	1	Averaging Plan	0.50	0.45	0.50	0.46	0.42	8%
MS	R D Morrow	South Mississippi Electric Pwr	6061	2	Averaging Plan	0.50	0.47	0.50	0.46	0.43	10%
MS	Victor J Daniel Jr	Mississippi Power Co	6073	1	Averaging Plan	0.45	0.32	0.46	0.44	0.27	20%
MS	Victor J Daniel Jr	Mississippi Power Co	6073	2	Averaging Plan	0.45	0.27	0.46	0.44	0.28	-4%
NY	Dunkirk	Niagara Mohawk Power Corp	2554	3	Standard Limitation	0.45	0.36			0.48	-26%
NY	Dunkirk	Niagara Mohawk Power Corp	2554	4	Standard Limitation	0.45	0.36			0.48	-26%
NY	Greenidge	NGE Generation, Inc.	2527	6	Averaging Plan	0.45	0.31	0.45	0.30	0.55	-44%
NY	Milliken	NGE Generation, Inc.	2535	1	Averaging Plan	0.45	0.30	0.45	0.30	0.66	-55%
NY	Milliken	NGE Generation, Inc.	2535	2	Averaging Plan	0.45	0.30	0.45	0.30	0.59	-49%
OH	Ashtabula	Cleveland Electric Illum	2835	7	Standard Limitation	0.45	0.40			0.61	-34%
OH	Conesville	Columbus Southern Power	2840	3	Standard Limitation	0.50	0.45			0.93	-52%
OH	Conesville	Columbus Southern Power	2840	4	Standard Limitation	0.45	0.43			0.55	-22%
OH	Eastlake	Cleveland Electric Illum	2837	1	Standard Limitation	0.45	0.43			0.49	-12%
OH	Eastlake	Cleveland Electric Illum	2837	2	Standard Limitation	0.45	0.37			0.68	-46%
OH	Eastlake	Cleveland Electric Illum	2837	3	Standard Limitation	0.45	0.40			0.54	-26%
OH	Eastlake	Cleveland Electric Illum	2837	4	Standard Limitation	0.45	0.35			0.51	-31%
OH	Edgewater	Ohio Edison Co	2857	13	Averaging Plan	0.50	0.37	0.50	0.43	0.87	-57%
OH	Gorge	Ohio Edison Co	2858	25	Averaging Plan	0.50	Not Oper.	0.50	0.43	0.00	
OH	Gorge	Ohio Edison Co	2858	26	Averaging Plan	0.50	Not Oper.	0.50	0.43	0.00	
OH	Miami Fort	Cincinnati Gas & Electric Co	2832	6	Averaging Plan	0.45	0.51	0.48	0.42	0.73	-30%
OH	Picway	Columbus Southern Power	2843	9	Standard Limitation	0.50	0.41			0.87	-53%

Appendix C-2: Compliance Results for the 265 Phase I NO_x Affected Units in 1999

ST	Plant Name	Operating Utility	ORIS Code	Boiler	Compliance Approach	1999				1990 Emission Rate	Change from 1990 to 1999
						Emission Limit	Actual Emission Rate	AEL or Avg. Plan Limit	Actual Avg. Plan Rate		
OH	R E Burger	Ohio Edison Co	2864	7	Averaging Plan	0.50	0.53	0.50	0.43	0.66	-20%
OH	R E Burger	Ohio Edison Co	2864	8	Averaging Plan	0.50	0.64	0.50	0.43	0.72	-12%
OH	Toronto	Ohio Edison Co	2867	10	Averaging Plan	0.50	Not Oper.	0.50	0.43	0.00	
OH	Toronto	Ohio Edison Co	2867	11	Averaging Plan	0.50	Not Oper.	0.50	0.43	0.00	
OH	W H Sammis	Ohio Edison Co	2866	5	Averaging Plan	0.50	0.53	0.50	0.43	0.52	1%
OH	W H Sammis	Ohio Edison Co	2866	6	Averaging Plan	0.50	0.50	0.50	0.43	1.10	-55%
OH	Walter C Beckjord	Cincinnati Gas & Electric Co	2830	5	Averaging Plan	0.45	0.46	0.48	0.42	0.72	-36%
OH	Walter C Beckjord	Cincinnati Gas & Electric Co	2830	6	Averaging Plan	0.45	0.35	0.48	0.42	0.71	-51%
PA	Armstrong	West Penn Power Co	3178	1	Averaging Plan	0.50	0.34	0.49	0.45	0.90	-62%
PA	Armstrong	West Penn Power Co	3178	2	Averaging Plan	0.50	0.36	0.49	0.45	1.04	-65%
PA	Bruce Mansfield	Pennsylvania Power Co.	6094	1	Averaging Plan	0.50	0.36	0.50	0.43	0.98	-63%
PA	Bruce Mansfield	Pennsylvania Power Co.	6094	2	Averaging Plan	0.50	0.32	0.50	0.43	1.13	-72%
PA	Brunner Island	PP&L	3140	1	Averaging Plan	0.45	0.35	0.46	0.36	0.65	-46%
PA	Brunner Island	PP&L	3140	2	Averaging Plan	0.45	0.35	0.46	0.36	0.71	-51%
PA	Brunner Island	PP&L	3140	3	Averaging Plan	0.45	0.33	0.46	0.36	0.83	-60%
PA	Cheswick	Duquesne Light Co	8226	1	Standard Limitation	0.45	0.31			0.71	-56%
PA	Conemaugh	Sithe Northeast Management Co.	3118	1	Standard Limitation	0.45	0.34			0.65	-47%
PA	Conemaugh	Sithe Northeast Management Co.	3118	2	Standard Limitation	0.45	0.32			0.71	-55%
PA	Martins Creek	PP&L	3148	1	Averaging Plan	0.50	0.44	0.46	0.36	1.03	-57%
PA	Martins Creek	PP&L	3148	2	Averaging Plan	0.50	0.44	0.46	0.36	0.93	-53%
PA	Mitchell	West Penn Power Co	3181	33	Averaging Plan	0.45	0.36	0.49	0.45	0.68	-47%
PA	New Castle	Ohio Edison Co	3138	1	Averaging Plan	0.50	Not Oper.	0.50	0.43	0.00	
PA	New Castle	Ohio Edison Co	3138	2	Averaging Plan	0.50	Not Oper.	0.50	0.43	0.00	
PA	Portland	Sithe Northeast Management Co.	3113	1	Averaging Plan	0.45	0.24	0.45	0.26	0.46	-48%
PA	Portland	Sithe Northeast Management Co.	3113	2	Averaging Plan	0.45	0.28	0.45	0.26	0.66	-58%
PA	Shawville	Sithe Northeast Management Co.	3131	1	Standard Limitation	0.50	0.43			0.99	-57%
PA	Shawville	Sithe Northeast Management Co.	3131	2	Standard Limitation	0.50	0.46			1.02	-55%
PA	Shawville	Sithe Northeast Management Co.	3131	3	Standard Limitation	0.45	0.38			0.83	-54%
PA	Shawville	Sithe Northeast Management Co.	3131	4	Standard Limitation	0.45	0.38			0.82	-53%
PA	Sunbury	Sunbury Generation, LLC	3152	3	Averaging Plan	0.50	0.39	0.46	0.36	0.93	-58%

Appendix C-2: Compliance Results for the 265 Phase I NO_x Affected Units in 1999

ST	Plant Name	Operating Utility	ORIS Code	Boiler	Compliance Approach	1999				1990 Emission Rate	Change from 1990 to 1999
						Emission Limit	Actual Emission Rate	AEL or Avg. Plan Limit	Actual Avg. Plan Rate		
PA	Sunbury	Sunbury Generation, LLC	3152	4	Averaging Plan	0.50	0.39	0.46	0.36	1.29	-70%
TN	Gallatin	TVA	3403	1	Averaging Plan	0.45	0.33	0.47	0.42	0.59	-44%
TN	Gallatin	TVA	3403	2	Averaging Plan	0.45	0.33	0.47	0.42	0.63	-48%
TN	Gallatin	TVA	3403	3	Averaging Plan	0.45	0.35	0.47	0.42	0.59	-41%
TN	Gallatin	TVA	3403	4	Averaging Plan	0.45	0.35	0.47	0.42	0.55	-36%
TN	Johnsonville	TVA	3406	1	Averaging Plan	0.45	0.48	0.47	0.42	0.45	7%
TN	Johnsonville	TVA	3406	2	Averaging Plan	0.45	0.48	0.47	0.42	0.48	0%
TN	Johnsonville	TVA	3406	3	Averaging Plan	0.45	0.48	0.47	0.42	0.46	4%
TN	Johnsonville	TVA	3406	4	Averaging Plan	0.45	0.48	0.47	0.42	0.54	-11%
TN	Johnsonville	TVA	3406	5	Averaging Plan	0.45	0.48	0.47	0.42	0.45	7%
TN	Johnsonville	TVA	3406	6	Averaging Plan	0.45	0.48	0.47	0.42	0.50	-4%
TN	Johnsonville	TVA	3406	7	Averaging Plan	0.50	0.48	0.47	0.42	1.00	-52%
TN	Johnsonville	TVA	3406	8	Averaging Plan	0.50	0.48	0.47	0.42	0.97	-51%
TN	Johnsonville	TVA	3406	9	Averaging Plan	0.50	0.48	0.47	0.42	1.10	-56%
TN	Johnsonville	TVA	3406	10	Averaging Plan	0.50	0.48	0.47	0.42	1.07	-55%
WI	Alma	Dairyland Power Coop	4140	B4	Averaging Plan	0.50	0.61	0.48	0.43	0.85	-28%
WI	Alma	Dairyland Power Coop	4140	B5	Averaging Plan	0.50	0.61	0.48	0.43	0.85	-28%
WI	Genoa	Dairyland Power Coop	4143	1	Averaging Plan	0.45	0.41	0.48	0.43	0.75	-45%
WI	J P Madgett	Dairyland Power Coop	4271	B1	Averaging Plan	0.50	0.41	0.48	0.43	0.30	38%
WI	Port Washington	Wisconsin Electric Power Co	4040	1	Averaging Plan	0.50	0.30	0.48	0.35	0.32	-6%
WI	Port Washington	Wisconsin Electric Power Co	4040	2	Averaging Plan	0.50	0.30	0.48	0.35	0.32	-6%
WI	Port Washington	Wisconsin Electric Power Co	4040	3	Averaging Plan	0.50	0.30	0.48	0.35	0.32	-6%
WI	Port Washington	Wisconsin Electric Power Co	4040	4	Averaging Plan	0.50	0.28	0.48	0.35	0.37	-25%
WI	Port Washington	Wisconsin Electric Power Co	4040	5	Standard Limitation	0.50	Not Oper.			0.00	
WI	Pulliam	Wisconsin Public Service	4072	7	Averaging Plan	0.50	0.43	0.47	0.33	0.69	-38%
WI	Pulliam	Wisconsin Public Service	4072	8	Averaging Plan	0.50	0.36	0.47	0.33	0.57	-37%
WI	South Oak Creek	Wisconsin Electric Power Co	4041	5	Averaging Plan	0.50	0.26	0.48	0.35	0.28	-6%
WI	South Oak Creek	Wisconsin Electric Power Co	4041	6	Averaging Plan	0.50	0.26	0.48	0.35	0.28	-6%
WI	South Oak Creek	Wisconsin Electric Power Co	4041	7	Averaging Plan	0.45	0.37	0.48	0.35	0.66	-44%
WI	South Oak Creek	Wisconsin Electric Power Co	4041	8	Averaging Plan	0.45	0.37	0.48	0.35	0.67	-44%

Appendix C-2: Compliance Results for the 265 Phase I NO_x Affected Units in 1999

ST	Plant Name	Operating Utility	ORIS Code	Boiler	Compliance Approach	1999				1990 Emission Rate	Change from 1990 to 1999
						Emission Limit	Actual Emission Rate	AEL or Avg. Plan Limit	Actual Avg. Plan Rate		
WI	Valley	Wisconsin Electric Power Co	4042	1	Averaging Plan	0.50	0.47	0.48	0.35	1.10	-57%
WI	Valley	Wisconsin Electric Power Co	4042	2	Averaging Plan	0.50	0.47	0.48	0.35	1.10	-57%
WI	Valley	Wisconsin Electric Power Co	4042	3	Averaging Plan	0.50	0.49	0.48	0.35	1.05	-53%
WI	Valley	Wisconsin Electric Power Co	4042	4	Averaging Plan	0.50	0.49	0.48	0.35	0.93	-47%
WI	Weston	Wisconsin Public Service	4078	1	Averaging Plan	0.50	0.79	0.47	0.33	0.90	-12%
WI	Weston	Wisconsin Public Service	4078	2	Averaging Plan	0.50	0.36	0.47	0.33	1.08	-67%
WI	Weston	Wisconsin Public Service	4078	3	Averaging Plan	0.45	0.23	0.47	0.33	0.26	-10%
WV	Albright	Monongahela Power Co	3942	1	Averaging Plan	0.50	0.66	0.49	0.45	1.10	-40%
WV	Albright	Monongahela Power Co	3942	2	Averaging Plan	0.50	0.69	0.49	0.45	1.10	-37%
WV	Albright	Monongahela Power Co	3942	3	Averaging Plan	0.45	0.38	0.49	0.45	0.71	-46%
WV	Fort Martin	Monongahela Power Co	3943	1	Averaging Plan	0.45	0.65	0.49	0.45	0.62	5%
WV	Harrison	Monongahela Power Co	3944	1	Averaging Plan	0.50	0.47	0.49	0.45	0.99	-53%
WV	Harrison	Monongahela Power Co	3944	2	Averaging Plan	0.50	0.47	0.49	0.45	1.13	-58%
WV	Harrison	Monongahela Power Co	3944	3	Averaging Plan	0.50	0.47	0.49	0.45	1.06	-56%
WV	Mitchell	Ohio Power Co	3948	1	AEL Demonstration	0.50	0.54	0.56		0.77	-30%
WV	Mitchell	Ohio Power Co	3948	2	AEL Demonstration	0.50	0.52	0.56		0.77	-32%
WV	Mt Storm	VEPCO	3954	1	AEL Demonstration	0.45	0.64	0.76		0.88	-27%
WV	Mt Storm	VEPCO	3954	2	AEL Demonstration	0.45	0.64	0.69		0.76	-16%
WV	Mt Storm	VEPCO	3954	3	AEL Demonstration	0.45	0.67	0.74		1.27	-47%
WV	Pleasants	Monongahela Power Co	6004	1	Averaging Plan	0.50	0.37	0.49	0.45	0.52	-29%
WV	Pleasants	Monongahela Power Co	6004	2	Averaging Plan	0.50	0.33	0.49	0.45	0.35	-5%
WY	Jim Bridger	Pacificorp	8066	BW71	Standard Limitation	0.45	0.41			0.63	-35%
WY	Jim Bridger	Pacificorp	8066	BW72	Standard Limitation	0.45	0.39			0.51	-24%

Appendix C-2: Compliance Results for the 265 Phase I NO_x Affected Units in 1999

ST	Plant Name	Operating Utility	ORIS		Compliance Approach	1999				1990 Emission Rate	Change from 1990 to 1999
						Emission Limit	Actual Emission Rate	AEL or Avg. Plan Limit	Actual Avg. Plan Rate		
WY	Jim Bridger	Pacificorp	8066	BW73	Standard Limitation	0.45	0.37			0.42	-12%
WY	Wyodak	Pacificorp	6101	BW91	Standard Limitation	0.50	0.29			0.37	-22%

Appendix C-3: Compliance Results for the 274 Early Election Units in 1999

ST	Plant Name	Operating Utility	ORIS Code	Boiler	NSPS ¹	Emission Limit	Actual 1999 Emission Rate	1990 Emission Rate	Change from 1990 to 1999
AL	Charles R Lowman	Alabama Electric Coop	56	2	D	0.50	0.48	0.62	-23%
AL	Charles R Lowman	Alabama Electric Coop	56	3	D	0.50	0.49	0.66	-26%
AR	Flint Creek	Southwestern Electric Power	6138	1	D	0.50	0.30	0.31	-3%
AR	Independence	Entergy Arkansas, Inc.	6641	1	D	0.45	0.23	0.34	-33%
AR	Independence	Entergy Arkansas, Inc.	6641	2	D	0.45	0.29	0.35	-16%
AR	White Bluff	Entergy Arkansas, Inc.	6009	1	D	0.45	0.35	0.29	21%
AR	White Bluff	Arkansas Power & Light Co	6009	2	D	0.45	0.34	0.34	1%
AZ	Apache Station	Arizona Electric Pwr Coop	160	2	D	0.50	0.43	0.58	-26%
AZ	Apache Station	Arizona Electric Pwr Coop	160	3	D	0.50	0.40	0.58	-31%
AZ	Cholla	Arizona Public Service	113	1		0.45	0.43	0.46	-7%
AZ	Cholla	Arizona Public Service	113	2	D	0.45	0.35	0.42	-16%
AZ	Cholla	Arizona Public Service	113	3	D	0.45	0.32	0.36	-11%
AZ	Cholla	Arizona Public Service	113	4	D	0.45	0.31	0.38	-18%
AZ	Coronado	Salt River Project	6177	U1B	D	0.50	0.44	0.51	-14%
AZ	Coronado	Salt River Project	6177	U2B	D	0.50	0.42	0.51	-18%
AZ	Navajo	Salt River Project	4941	1		0.45	0.39	0.41	-5%
AZ	Navajo	Salt River Project	4941	2		0.45	0.33	0.41	-20%
AZ	Navajo	Salt River Project	4941	3		0.45	0.37	0.37	-1%
AZ	Springerville	Tucson Electric Power Co	8223	1	D	0.45	0.37	0.34	9%
AZ	Springerville	Tucson Electric Power Co	8223	2	D	0.45	0.39	0.33	17%
CO	Cherokee	Public Service Co of CO	469	3		0.50	0.46	0.73	-37%
CO	Cherokee	Public Service Co of CO	469	4		0.45	0.35	0.51	-31%
CO	Comanche	Public Service Co of CO	470	1		0.45	0.30	0.24	27%
CO	Comanche	Public Service Co of CO	470	2	D	0.50	0.28	0.31	-10%
CO	Craig	Tri-State G&T Association	6021	C1	D	0.50	0.31	0.39	-21%
CO	Craig	Tri-State G&T Association	6021	C2	D	0.50	0.42	0.40	5%
CO	Craig	Tri-State G&T Association	6021	C3	Da	0.50	0.34	0.28	21%
CO	Pawnee	Public Service Co of CO	6248	1	D	0.50	0.23	0.62	-63%
CO	Rawhide	Platte River Power Authority	6761	101	Da	0.45	0.35	0.43	-19%
CO	Ray D Nixon	Colorado Springs Utilities	8219	1	D	0.50	0.42	0.54	-23%
CO	Valmont	Public Service Co of CO	477	5		0.45	0.26	0.17	53%

¹ New Source Performance Standard subpart

Appendix C-3: Compliance Results for the 274 Early Election Units in 1999

ST	Plant Name	Operating Utility	ORIS Code	Boiler	NSPS ¹	Emission Limit	Actual 1999 Emission Rate	1990 Emission Rate	Change from 1990 to 1999
CT	Bridgeport Harbor	United Illuminating Co	568	BHB3		0.45	0.18	0.56	-68%
FL	C D McIntosh Jr	City of Lakeland	676	3	D	0.50	0.47	0.46	2%
FL	Crystal River	Florida Power Corporation	628	2		0.45	0.43	0.38	14%
FL	Crystal River	Florida Power Corporation	628	4	D	0.50	0.49	0.50	-3%
FL	Crystal River	Florida Power Corporation	628	5	D	0.50	0.48	0.47	2%
FL	Deerhaven	Gainesville Regional Util	663	B2	D	0.50	0.48	0.53	-10%
FL	Seminole	Seminole Electric Coop Inc	136	1	Da	0.50	0.45	0.43	5%
FL	Seminole	Seminole Electric Coop Inc	136	2	Da	0.50	0.42	0.36	17%
FL	St Johns River Power	Jacksonville Electric Auth	207	1	Da	0.50	0.49	0.50	-3%
FL	St Johns River Power	Jacksonville Electric Auth	207	2	Da	0.50	0.49	0.59	-18%
GA	Scherer	Georgia Power Co	6257	4	D	0.45	0.27	0.21	30%
IA	Ames	City of Ames	1122	7		0.45	0.35	0.60	-41%
IA	Ames	City of Ames	1122	8	D	0.50	0.41	0.55	-25%
IA	Council Bluffs	Midamerican Energy Company	1082	1		0.50	0.40	0.56	-29%
IA	Council Bluffs	Midamerican Energy Company	1082	2		0.45	0.37	0.33	11%
IA	Council Bluffs	Midamerican Energy Company	1082	3	D	0.50	0.46	0.37	23%
IA	George Neal North	Midamerican Energy Company	1091	2		0.50	0.43	1.06	-59%
IA	George Neal North	Midamerican Energy Company	1091	3	D	0.50	0.48	0.39	22%
IA	George Neal South	Midamerican Energy Company	7343	4	D	0.50	0.37	0.64	-42%
IA	Lansing	Interstate Power Co	1047	4	D	0.50	0.43	0.50	-13%
IA	Louisa	Midamerican Energy Company	6664	101	D	0.50	0.26	0.25	2%
IA	Ottumwa	IES Utilities, Inc.	6254	1	D	0.45	0.33	0.69	-52%
IL	Crawford	Midwest Generation Eme, LLC	867	7		0.45	0.32	0.33	-4%
IL	Crawford	Midwest Generation Eme, LLC	867	8		0.45	0.37	0.48	-23%
IL	Dallman	City of Springfield, IL	963	33	D	0.45	0.40	0.55	-27%
IL	Fisk	Midwest Generation Eme, LLC	886	19		0.45	0.35	0.39	-10%
IL	Waukegan	Midwest Generation Eme, LLC	883	7		0.45	0.31	0.26	19%
IL	Waukegan	Midwest Generation Eme, LLC	883	8		0.45	0.33	0.41	-19%
IL	Will County	Midwest Generation Eme, LLC	884	3		0.45	0.43	0.39	11%
IL	Will County	Midwest Generation Eme, LLC	884	4		0.45	0.31	0.31	2%
IN	A B Brown	Southern Indiana Gas & Elec	6137	1	D	0.50	0.42	0.61	-31%

¹ New Source Performance Standard subpart

Appendix C-3: Compliance Results for the 274 Early Election Units in 1999

ST	Plant Name	Operating Utility	ORIS Code	Boiler	NSPS ¹	Emission Limit	Actual 1999 Emission Rate	1990 Emission Rate	Change from 1990 to 1999
IN	A B Brown	Southern Indiana Gas & Elec	6137	2	Da	0.50	0.47	0.39	19%
IN	Dean H Mitchell	Northern Indiana Pub Serv	996	4		0.45	0.29	0.43	-33%
IN	Dean H Mitchell	Northern Indiana Pub Serv	996	5		0.45	0.29	0.43	-33%
IN	Dean H Mitchell	Northern Indiana Pub Serv	996	6		0.45	0.29	0.58	-50%
IN	Dean H Mitchell	Northern Indiana Pub Serv	996	11		0.50	0.29	0.58	-50%
IN	Merom	Hoosier Energy	6213	1SG1	D	0.50	0.40	0.23	74%
IN	Merom	Hoosier Energy	6213	2SG1	D	0.50	0.37	0.63	-41%
IN	R M Schahfer	Northern Indiana Pub Serv	6085	15	D	0.50	0.24	0.42	-43%
IN	R M Schahfer	Northern Indiana Pub Serv	6085	17	Da	0.45	0.37	0.46	-19%
IN	R M Schahfer	Northern Indiana Pub Serv	6085	18	Da	0.45	0.35	0.44	-20%
IN	Rockport	Indiana Michigan Power Co	6166	MB1	D	0.50	0.39	0.32	22%
IN	Rockport	Indiana Michigan Power Co	6166	MB2	D	0.50	0.39	0.32	22%
IN	State Line	State Line Energy, LLC	981	3		0.45	0.28	0.32	-13%
IN	Whitewater Valley	City of Richmond, IN	1040	1		0.50	0.43	0.71	-39%
IN	Whitewater Valley	City of Richmond, IN	1040	2		0.45	0.43	0.71	-39%
KS	Nearman Creek	Board of Public Util, KS City	6064	N1	D	0.50	0.44	0.46	-4%
KS	Riverton	Empire District Electric	1239	39		0.50	0.43	0.83	-48%
KS	Riverton	Empire District Electric	1239	40		0.45	0.43	0.55	-22%
KY	Cane Run	Louisville Gas & Electric	1363	4		0.50	0.45	0.84	-46%
KY	Cane Run	Louisville Gas & Electric	1363	5		0.50	0.49	1.15	-57%
KY	Cane Run	Louisville Gas & Electric	1363	6		0.45	0.36	1.02	-65%
KY	Dale	East Kentucky Power Coop Inc	1385	3		0.50	0.41	0.73	-44%
KY	Dale	East Kentucky Power Coop Inc	1385	4		0.50	0.41	0.73	-44%
KY	H L Spurlock	East Kentucky Power Coop Inc	6041	2	D	0.45	0.41	0.47	-13%
KY	Mill Creek	Louisville Gas & Electric	1364	1		0.45	0.39	0.76	-49%
KY	Mill Creek	Louisville Gas & Electric	1364	2		0.45	0.34	0.79	-57%
KY	Mill Creek	Louisville Gas & Electric	1364	3	D	0.50	0.49	0.62	-21%
KY	Mill Creek	Louisville Gas & Electric	1364	4	D	0.50	0.47	0.57	-18%
KY	Trimble County	Louisville Gas & Electric	6071	1	D	0.45	0.39	0.62	-37%
LA	Big Cajun 2	Cajun Electric Power	6055	2B1	D	0.50	0.34	0.28	20%
LA	Big Cajun 2	Cajun Electric Power	6055	2B2	D	0.50	0.32	0.25	28%

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ST	Plant Name	Operating Utility	ORIS Code	Boiler	NSPS ¹	Emission Limit	Actual 1999 Emission Rate	1990 Emission Rate	Change from 1990 to 1999
LA	Big Cajun 2	Cajun Electric Power	6055	2B3	D	0.50	0.29	0.24	19%
LA	Dolet Hills	Central Louisiana Elec Co	51	1	D	0.50	0.44	0.62	-29%
LA	R S Nelson	Entergy Gulf States, Inc.	1393	6	D	0.45	0.41	0.20	107%
LA	Rodemacher	Central Louisiana Elec Co	6190	2	D	0.50	0.42	0.38	10%
MI	B C Cobb	Consumers Energy Co	1695	4		0.45	0.36	0.38	-6%
MI	B C Cobb	Consumers Energy Co	1695	5		0.45	0.38	0.36	6%
MI	J B Sims	City of Grand Haven	1825	3	Da	0.50	0.41	0.51	-19%
MI	J C Weadock	Consumers Energy Co	1720	7		0.45	0.35	0.44	-21%
MI	J C Weadock	Consumers Energy Co	1720	8		0.45	0.34	0.44	-23%
MI	J R Whiting	Consumers Energy Co	1723	1		0.50	0.31	0.82	-62%
MI	J R Whiting	Consumers Energy Co	1723	3		0.50	0.38	1.04	-63%
MI	Presque Isle	Wisconsin Electric Power Co.	1769	7	D	0.50	0.48	0.49	-2%
MI	Presque Isle	Wisconsin Electric Power Co.	1769	8	D	0.50	0.46	0.53	-12%
MI	Presque Isle	Wisconsin Electric Power Co.	1769	9	D	0.50	0.47	0.66	-28%
MN	Clay Boswell	Minnesota Power & Light Co	1893	3		0.45	0.35	0.42	-16%
MN	Hoot Lake	Otter Tail Power Co	1943	2		0.45	0.39	0.58	-32%
MO	Sikeston	Sikeston Board of Mun Util	6768	1	D	0.50	0.24	0.51	-53%
MT	Colstrip	PP&L Montana, LLC	6076	1	D	0.45	0.41	0.42	-2%
MT	Colstrip	PP&L Montana, LLC	6076	2	D	0.45	0.37	0.43	-14%
MT	Colstrip	PP&L Montana, LLC	6076	3	Da	0.45	0.43	0.34	27%
MT	Colstrip	PP&L Montana, LLC	6076	4	Da	0.45	0.45	0.35	29%
MT	Lewis & Clark	PP&L Montana, LLC	6089	B1		0.45	0.38	0.57	-33%
NC	Buck	Duke Energy Corporation	2720	5		0.45	0.42	0.59	-29%
NC	Buck	Duke Energy Corporation	2720	6		0.45	0.43	0.54	-21%
NC	Buck	Duke Energy Corporation	2720	7		0.45	0.45	0.57	-21%
NC	Buck	Duke Energy Corporation	2720	8		0.45	0.42	0.45	-6%
NC	Buck	Duke Energy Corporation	2720	9		0.45	0.43	0.51	-15%
NC	Cliffside	Duke Energy Corporation	2721	1		0.45	0.41	Not Oper.	
NC	Cliffside	Duke Energy Corporation	2721	2		0.45	0.39	Not Oper.	
NC	Cliffside	Duke Energy Corporation	2721	3		0.45	0.39	Not Oper.	
NC	Cliffside	Duke Energy Corporation	2721	4		0.45	0.42	Not Oper.	

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ST	Plant Name	Operating Utility	ORIS Code	Boiler	NSPS ¹	Emission Limit	Actual 1999 Emission Rate	1990 Emission Rate	Change from 1990 to 1999
NC	Cliffside	Duke Energy Corporation	2721	5		0.45	0.44	0.51	-13%
NC	Dan River	Duke Energy Corporation	2723	1		0.45	0.41	0.52	-20%
NC	Dan River	Duke Energy Corporation	2723	2		0.45	0.42	0.55	-23%
NC	Dan River	Duke Energy Corporation	2723	3		0.45	0.45	0.56	-20%
NC	G G Allen	Duke Energy Corporation	2718	1		0.45	0.44	0.65	-32%
NC	G G Allen	Duke Energy Corporation	2718	2		0.45	0.44	0.61	-28%
NC	G G Allen	Duke Energy Corporation	2718	3		0.45	0.45	0.64	-30%
NC	G G Allen	Duke Energy Corporation	2718	4		0.45	0.41	0.68	-40%
NC	G G Allen	Duke Energy Corporation	2718	5		0.45	0.45	0.68	-34%
NC	Marshall	Duke Energy Corporation	2727	1		0.45	0.43	0.48	-11%
NC	Marshall	Duke Energy Corporation	2727	2		0.45	0.43	0.61	-29%
NC	Marshall	Duke Energy Corporation	2727	3		0.45	0.43	0.52	-17%
NC	Marshall	Duke Energy Corporation	2727	4		0.45	0.45	0.70	-36%
NC	Riverbend	Duke Energy Corporation	2732	7		0.45	0.39	0.58	-33%
NC	Riverbend	Duke Energy Corporation	2732	8		0.45	0.36	0.64	-44%
NC	Riverbend	Duke Energy Corporation	2732	9		0.45	0.39	Not Oper.	
NC	Riverbend	Duke Energy Corporation	2732	10		0.45	0.41	Not Oper.	
ND	Antelope Valley	Basin Electric Power	6469	B1	D	0.45	0.38	0.43	-11%
ND	Antelope Valley	Basin Electric Power	6469	B2	D	0.45	0.32	0.27	17%
ND	Leland Olds	Basin Electric Power	2817	1		0.50	0.26	0.74	-65%
ND	Stanton	United Power Assn	2824	10	Da	0.45	0.40	0.47	-15%
NE	Gerald Gentleman Sta	Nebraska Public Power Dist	6077	1	D	0.50	0.45	0.40	13%
NE	Gerald Gentleman Sta	Nebraska Public Power Dist	6077	2	D	0.50	0.32	0.35	-8%
NE	Gerald Whelan Energy	City of Hastings	60	1	D	0.45	0.29	0.30	-4%
NE	Nebraska City	Omaha Public Power Dist	6096	1	D	0.50	0.42	0.48	-12%
NE	North Omaha	Omaha Public Power Dist	2291	4		0.45	0.34	0.38	-10%
NE	Platte	City of Grand Island	59	1	D	0.45	0.41	0.48	-14%
NM	Escalante	Plains Electric Gen & Trans	87	1	Da	0.45	0.41	0.35	18%
NV	Mohave	Southern California Edison	2341	1		0.45	0.40	0.38	4%
NV	Mohave	Southern California Edison	2341	2		0.45	0.40	0.46	-13%
NV	North Valmy	Sierra Pacific Power Co	8224	1	D	0.50	0.36	0.51	-30%

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ST	Plant Name	Operating Utility	ORIS Code	Boiler	NSPS ¹	Emission Limit	Actual 1999 Emission Rate	1990 Emission Rate	Change from 1990 to 1999
NV	North Valmy	Sierra Pacific Power Co	8224	2	Da	0.50	0.35	0.40	-13%
NV	Reid Gardner	Nevada Power Company	2324	4	Da	0.50	0.30	0.38	-20%
NY	C R Huntley	Huntley Power LLC	2549	67		0.45	0.34	0.64	-47%
NY	C R Huntley	Huntley Power LLC	2549	68		0.45	0.34	0.64	-47%
NY	Dunkirk	Niagara Mohawk Power Corp	2554	1		0.45	0.36	0.48	-25%
NY	Dunkirk	Niagara Mohawk Power Corp	2554	2		0.45	0.36	0.48	-25%
NY	Kintigh	NGE Generation, Inc.	6082	1	Da	0.50	0.36	0.62	-42%
NY	S A Carlson	City of Jamestown	2682	9		0.50	0.43	0.90	-52%
NY	S A Carlson	City of Jamestown	2682	10		0.50	0.45	1.05	-57%
NY	S A Carlson	City of Jamestown	2682	11		0.50	0.45	0.83	-46%
NY	S A Carlson	City of Jamestown	2682	12		0.50	0.43	0.90	-52%
OH	Conesville	Columbus Southern Power	2840	5	D	0.45	0.40	0.44	-8%
OH	Conesville	Columbus Southern Power	2840	6	D	0.45	0.40	0.44	-8%
OH	W H Zimmer	Cincinnati Gas & Electric Co	6019	1	Da	0.50	0.47	Not Oper.	
OK	Muskogee	Oklahoma Gas & Electric Co	2952	4	D	0.45	0.31	0.44	-29%
OK	Muskogee	Oklahoma Gas & Electric Co	2952	5	D	0.45	0.34	0.41	-17%
OK	Muskogee	Oklahoma Gas & Electric Co	2952	6	D	0.45	0.40	0.44	-8%
OK	Northeastern	Central and Southwest Services	2963	3313	D	0.45	0.37	0.53	-30%
OK	Northeastern	Central and Southwest Services	2963	3314	D	0.45	0.37	0.53	-30%
OK	Sooner	Oklahoma Gas & Electric Co	6095	1	D	0.45	0.41	0.33	23%
OK	Sooner	Oklahoma Gas & Electric Co	6095	2	D	0.45	0.39	0.42	-7%
OR	Boardman	Portland General Electric	6106	1SG	D	0.50	0.41	0.40	2%
PA	Bruce Mansfield	Pennsylvania Power Co.	6094	3	D	0.50	0.36	0.57	-37%
PA	Cromby	Peco Energy Company	3159	1		0.50	0.34	0.60	-43%
PA	Eddystone	Peco Energy Company	3161	1		0.45	0.28	0.42	-34%
PA	Eddystone	Peco Energy Company	3161	2		0.45	0.24	0.50	-52%
PA	Homer City	EME Homer City Generation, L.P.	3122	1		0.50	0.42	1.09	-62%
PA	Homer City	EME Homer City Generation, L.P.	3122	2		0.50	0.41	1.04	-61%
PA	Homer City	EME Homer City Generation, L.P.	3122	3	D	0.50	0.39	0.62	-37%
PA	Keystone	Sithe Northeast Management Company	3136	1		0.45	0.34	0.79	-57%
PA	Keystone	Sithe Northeast Management Company	3136	2		0.45	0.34	0.79	-57%

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ST	Plant Name	Operating Utility	ORIS Code	Boiler	NSPS ¹	Emission Limit	Actual 1999 Emission Rate	1990 Emission Rate	Change from 1990 to 1999
PA	Montour	PP&L	3149	1		0.45	0.39	0.95	-59%
PA	Montour	PP&L	3149	2		0.45	0.38	0.46	-18%
PA	New Castle	Pennsylvania Power Co.	3138	3		0.50	0.38	0.63	-39%
PA	New Castle	Pennsylvania Power Co.	3138	4		0.50	0.36	0.57	-37%
PA	New Castle	Pennsylvania Power Co.	3138	5		0.50	0.45	0.73	-38%
PA	Titus	Sithe Northeast Management Company	3115	1		0.45	0.33	0.73	-55%
PA	Titus	Sithe Northeast Management Company	3115	2		0.45	0.34	0.68	-50%
PA	Titus	Sithe Northeast Management Company	3115	3		0.45	0.31	0.77	-60%
SC	Cross	South Carolina Pub Serv	130	1	Da	0.50	0.30	Not Oper.	
SC	Cross	South Carolina Pub Serv	130	2	Da	0.45	0.36	0.46	-22%
SC	W S Lee	Duke Energy Corporation	3264	1		0.45	0.44	0.64	-31%
SC	W S Lee	Duke Energy Corporation	3264	2		0.45	0.44	0.61	-28%
SC	W S Lee	Duke Energy Corporation	3264	3		0.45	0.44	0.50	-13%
TN	John Sevier	TVA	3405	1		0.45	0.43	0.62	-31%
TN	John Sevier	TVA	3405	2		0.45	0.43	0.62	-31%
TN	John Sevier	TVA	3405	3		0.45	0.41	0.64	-36%
TN	John Sevier	TVA	3405	4		0.45	0.41	0.64	-36%
TX	Big Brown	Texas Utilities Electric Co	3497	1		0.45	0.33	0.40	-16%
TX	Big Brown	Texas Utilities Electric Co	3497	2		0.45	0.34	0.34	-1%
TX	Coletto Creek	Central Power & Light Co	6178	1	D	0.45	0.24	0.38	-37%
TX	Gibbons Creek	Texas Municipal Power Agency	6136	1	D	0.45	0.33	0.47	-30%
TX	Harrington Station	Southwestern Public Service	6193	061B	D	0.45	0.31	0.27	17%
TX	Harrington Station	Southwestern Public Service	6193	062B	D	0.45	0.34	0.36	-5%
TX	Harrington Station	Southwestern Public Service	6193	063B	D	0.45	0.26	0.36	-27%
TX	J K Spruce	City of San Antonio	7097	**1	Da	0.45	0.30	Not Oper.	
TX	J T Deely	City of San Antonio	6181	1	D	0.45	0.29	0.31	-5%
TX	J T Deely	City of San Antonio	6181	2	D	0.45	0.29	0.31	-5%
TX	Limestone	Houston Lighting & Power	298	LIM1	Da	0.45	0.43	0.50	-13%
TX	Limestone	Houston Lighting & Power	298	LIM2	Da	0.45	0.43	0.48	-11%
TX	Martin Lake	Texas Utilities Electric Co	6146	1	D	0.45	0.30	0.36	-16%
TX	Martin Lake	Texas Utilities Electric Co	6146	2	D	0.45	0.26	0.35	-25%

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TX	Martin Lake	Texas Utilities Electric Co	6146	3	D	0.45	0.32	0.42	-24%
TX	Monticello	Texas Utilities Electric Co	6147	1		0.45	0.30	0.31	-2%
TX	Monticello	Texas Utilities Electric Co	6147	2		0.45	0.29	0.40	-28%
TX	Monticello	Texas Utilities Electric Co	6147	3	D	0.50	0.22	0.21	6%
TX	Oklaunion	West Texas Utilities Co	127	1	Da	0.50	0.33	0.54	-39%
TX	Pirkey	Southwestern Electric Power	7902	1	D	0.50	0.36	0.34	5%
TX	Sam Seymour	Lower Colorado River Auth	6179	1	D	0.45	0.32	0.34	-6%
TX	Sam Seymour	Lower Colorado River Auth	6179	2	D	0.45	0.29	0.29	0%
TX	Sam Seymour	Lower Colorado River Auth	6179	3	Da	0.45	0.32	0.25	31%
TX	San Miguel	San Miguel Electric Coop	6183	SM-1	D	0.50	0.35	0.41	-15%
TX	Sandow	Texas Utilities Electric Co	6648	4	D	0.45	0.34	0.43	-21%
TX	Tolk Station	Southwestern Public Service	6194	171B	D	0.45	0.30	0.38	-22%
TX	Tolk Station	Southwestern Public Service	6194	172B	D	0.45	0.32	0.24	35%
TX	W A Parish	Houston Lighting & Power	3470	WAP5	D	0.50	0.34	0.47	-28%
TX	W A Parish	Houston Lighting & Power	3470	WAP6	D	0.50	0.34	0.53	-35%
TX	W A Parish	Houston Lighting & Power	3470	WAP7	D	0.45	0.16	0.35	-54%
TX	W A Parish	Houston Lighting & Power	3470	WAP8	Da	0.45	0.32	0.31	2%
TX	Welsh	Southwestern Electric Power	6139	1	D	0.50	0.32	0.27	20%
TX	Welsh	Southwestern Electric Power	6139	2	D	0.50	0.36	0.36	1%
TX	Welsh	Southwestern Electric Power	6139	3	D	0.50	0.40	0.37	8%
UT	Bonanza	Deseret Generation & Tran	7790	1-1	Da	0.50	0.31	0.42	-27%
UT	Carbon	Pacificorp	3644	1		0.45	0.42	0.50	-17%
UT	Carbon	Pacificorp	3644	2		0.45	0.42	0.58	-27%
UT	Hunter (Emery)	Pacificorp	6165	1	D	0.45	0.40	0.50	-19%
UT	Hunter (Emery)	Pacificorp	6165	2	D	0.45	0.36	0.55	-35%
UT	Huntington	Pacificorp	8069	1	D	0.45	0.41	0.52	-21%
UT	Intermountain	Intermountain Power Agency	6481	1SGA	Da	0.50	0.40	0.45	-12%
UT	Intermountain	Intermountain Power Agency	6481	2SGA	Da	0.50	0.38	0.38	1%
VA	Chesapeake	VEPCO	3803	1		0.45	0.43	0.42	2%
VA	Chesapeake	VEPCO	3803	2		0.45	0.42	0.48	-13%
VA	Chesapeake	VEPCO	3803	4		0.45	0.44	0.54	-19%

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VA	Chesterfield	VEPCO	3797	3		0.45	0.42	0.52	-19%
VA	Chesterfield	VEPCO	3797	4		0.45	0.42	0.49	-14%
VA	Glen Lyn	Appalachian Power Co	3776	51		0.45	0.41	0.46	-11%
VA	Glen Lyn	Appalachian Power Co	3776	52		0.45	0.41	Not Oper.	
VA	Possum Point	VEPCO	3804	3		0.45	0.45	0.60	-25%
VA	Potomac River	PEPCO	3788	1		0.45	0.42	0.51	-18%
VA	Potomac River	PEPCO	3788	2		0.45	0.37	0.44	-16%
VA	Potomac River	PEPCO	3788	3		0.45	0.44	0.64	-31%
VA	Potomac River	PEPCO	3788	4		0.45	0.43	0.46	-6%
VA	Potomac River	PEPCO	3788	5		0.45	0.43	0.72	-40%
VA	Yorktown	VEPCO	3809	1		0.45	0.44	0.57	-23%
VA	Yorktown	VEPCO	3809	2		0.45	0.43	0.57	-25%
WA	Centralia	Pacificorp	3845	BW21		0.45	0.40	0.40	-1%
WA	Centralia	Pacificorp	3845	BW22		0.45	0.43	0.45	-5%
WI	Blount Street	Madison Gas & Electric Co	3992	8		0.50	0.35	0.71	-50%
WI	Blount Street	Madison Gas & Electric Co	3992	9		0.50	0.44	0.61	-28%
WI	Columbia	Wisconsin Power & Light	8023	1		0.45	0.37	0.46	-20%
WI	Columbia	Wisconsin Power & Light	8023	2	D	0.45	0.39	0.49	-20%
WI	Edgewater	Wisconsin Power & Light	4050	5	D	0.50	0.23	0.21	10%
WV	Mountaineer (1301)	Appalachian Power Co	6264	1	D	0.50	0.50	0.47	6%
WY	Dave Johnston	Pacificorp	4158	BW41		0.50	0.42	0.48	-13%
WY	Dave Johnston	Pacificorp	4158	BW42		0.50	0.40	0.54	-26%
WY	Jim Bridger	Pacificorp	8066	BW74	D	0.45	0.39	0.41	-4%
WY	Laramie River	Basin Electric Power	6204	1	D	0.50	0.24	0.35	-31%
WY	Laramie River	Basin Electric Power	6204	2	D	0.50	0.26	0.32	-19%
WY	Laramie River	Basin Electric Power	6204	3	D	0.50	0.24	0.42	-43%

¹ New Source Performance Standard subpart