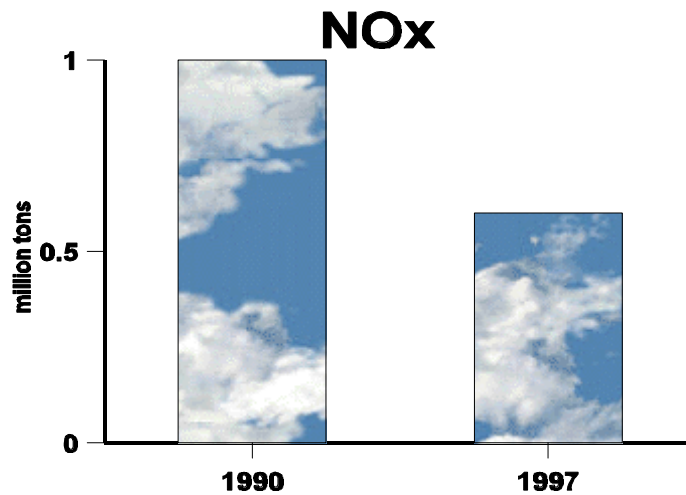
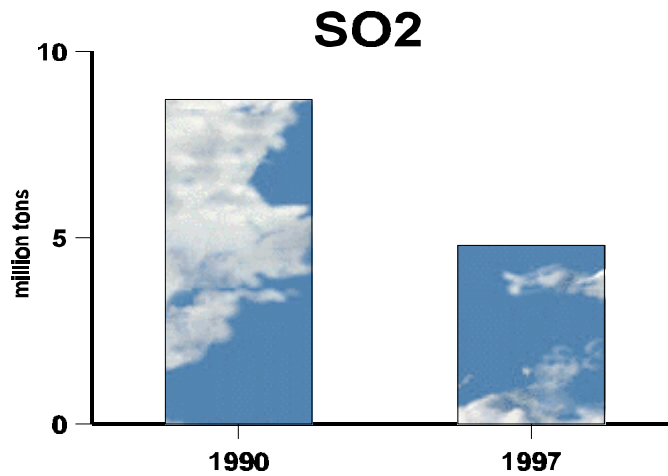




# 1997 Compliance Report

## Acid Rain Program



## 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 (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>), 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 SO<sub>2</sub> 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<sub>x</sub> emission limitations (in lb/mmBtu) for electric utilities, representing about a 27 percent reduction from 1990 levels. The Acid Rain Program is being implemented in two phases: Phase I began in 1995 for SO<sub>2</sub> and 1996 for NO<sub>x</sub>, and will last until 1999; Phase II for both pollutants begins in 2000 and is expected to involve over 2,000 units. In 1997, there were 423 units affected by the SO<sub>2</sub> provisions of the Acid Rain Program, 187 of which were also affected for NO<sub>x</sub>, and an additional 351 utility units affected only by the NO<sub>x</sub> 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, SO<sub>2</sub> and NO<sub>x</sub> gases and their particulate matter derivatives, sulfates and nitrates, contribute to visibility degradation and impact public health.

The SO<sub>2</sub> 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 SO<sub>2</sub> that facilitates lowest-cost emissions reductions and an overall emissions cap that ensures the maintenance of the environmental goal. The program features tradable SO<sub>2</sub> emissions allowances, where one allowance is a limited authorization to emit one ton of SO<sub>2</sub>. 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<sub>x</sub> component of the Acid Rain Program is more traditional, and establishes an emission rate limit for all affected utilities. Flexibility is 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 elect to become affected for NO<sub>x</sub> early. 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<sub>x</sub> portion of the program, utilities must achieve an annual emission limitation at or below mandated levels. For SO<sub>2</sub>, utilities are granted a 30-day grace period during which additional SO<sub>2</sub> allowances may be purchased, if necessary, to cover each unit's emissions for the 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 SO<sub>2</sub> 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 SO<sub>2</sub> allowances may be sold or banked for use in future years.

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Appendix C-3: Compliance Results for the 272 Early Election Units in 1997

**TO THE READER:**

The 1997 Compliance Report once again announces 100 percent compliance with the Acid Rain Program, now in its third year of sulfur dioxide (SO<sub>2</sub>) compliance and its second year of nitrogen oxides (NO<sub>x</sub>) compliance. Affected facilities continued to exceed the targets set for both pollutants by the Clean Air Act Amendments of 1990. The early reductions seen in 1995 and 1996 for SO<sub>2</sub> continue, with affected utility units beating their 1997 target by 23 percent. The overcompliance with the NO<sub>x</sub> target also continues, achieving an average emission rate for Phase I units 16 percent below the compliance rate.

Trading activity in the SO<sub>2</sub> arena continues to rise dramatically; the number of private trades between economically distinct organizations in 1997 is greater than the number of corresponding trades in all previous years combined. This increasingly active market, coupled with the success of the industry in exceeding compliance goals, has encouraged EPA to continue in its efforts to support other programs seeking to implement trading in order to achieve environmental goals at lower costs.

The Acid Rain Program is continually striving to find new ways to improve the efficiency with which it carries out its mission. For example, despite the addition of compliance determinations for 272 new Phase II early election units and supplemental determinations of compliance with Phase I extension provisions for 1997, EPA was able to complete the annual reconciliation process in the same amount of time as it did for 1996. This faster completion time was facilitated by fewer errors in submission of emissions data by the sources, which reduced the need for subsequent resubmissions; the improved quality of these data reports were in turn facilitated by the improvements to the Emissions Tracking System made by EPA which allowed faster feedback to be provided to sources each quarter.

I would like to thank those in the industry for their efforts to work in partnership with EPA. We expect to continue our efforts by making improvements in our rules and procedures, as well as upgrading the Emissions and Allowance Tracking Systems. Together, we can improve the efficiency of the Acid Rain Program and realize its significant environmental benefits.

Brian J. McLean, Director  
Acid Rain Program

## SUMMARY

### **100 Percent Compliance for both SO<sub>2</sub> and NO<sub>x</sub> in 1997**

All 774 boilers and combustion turbines (referred to as “units”) affected by the SO<sub>2</sub> and NO<sub>x</sub> regulations of the Acid Rain Program in 1997 successfully met their emissions compliance obligations.<sup>1</sup>

All 423 units subject to SO<sub>2</sub> requirements in 1997 held sufficient allowances to cover their emissions. The 5,480,210 allowances deducted from compliance accounts represent approximately 77 percent of all 1997 allowances issued and 41 percent of all 1995, 1996, and 1997 allowances that were available for compliance. Almost all of the deducted allowances (5,474,440, or 99.9 percent) were for emissions, but other deductions were also made as required by the Acid Rain regulations.

All 537 units subject to the NO<sub>x</sub> requirements in 1997 demonstrated compliance with applicable annual emission limitations. Of these 537 units, 239 were also subject to SO<sub>2</sub> requirements, while 298 units were affected only for NO<sub>x</sub> (26 Phase I units and 272 Phase II “early election” units).

### **1997 SO<sub>2</sub> Emissions of Phase I Units were 23 Percent Below Allowable Level**

SO<sub>2</sub> emissions in 1997 were 1.7 million tons (or 23 percent) below the 7.1 million ton allowable level as determined by 1997 allowance allocations. Since an additional 6.3 million allowances were carried over, or banked, from 1996, the overall number of allowances available in 1997 was 13.4 million, of which affected units exhausted only about 41 percent. Actual emissions for the 423 units participating in 1997, measured by continuous emission monitoring systems (CEMS), were 5.5 million tons, up less than 100,000 tons from emissions of the 431 units affected in 1996.

### **1997 Phase I Unit NO<sub>x</sub> Emission Rates 41 Percent Below 1990; NO<sub>x</sub> Tons 32 Percent Lower Than in 1990**

Emission rates for the 265 Phase I utility units dropped by 41 percent below 1990 levels; from an average of 0.69 pounds of NO<sub>x</sub> per million Btu of heat input (lb/mmBtu) to an average of 0.40 lbs/mmBtu, 17 percent below the compliance rate of 0.48 lbs/mmBtu for these units. Emission levels for these units were 409,322 tons (or 32 percent) below 1990 levels.

### **1997 NO<sub>x</sub> Emission Rates of Early Election Units Even Lower Than Phase I Units'**

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<sup>1</sup>Four units have been “conditionally” deemed to be in compliance with their NO<sub>x</sub> requirements, two early election units and two Table 1 units. The two Table 1 units are awaiting a final determination on their AEL demonstration period petition, the two early election units are awaiting a change in their permit conditions.

For the 272 Phase II units which elected to meet Phase I NO<sub>x</sub> rates early, emission rates dropped from an average of 0.46 lbs/mmBtu in 1990 to 0.38 lbs/mmBtu in 1997, a 17 percent decrease and 19 percent below the compliance rate of 0.47 lbs/mmBtu for these units. Therefore, while utilization of these units increased by 24 percent between 1990 and 1997, NO<sub>x</sub> tons increased by only 2 percent.

### **Monitoring Performance Excellent Once Again**

For the third 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 utility units affected by both Phase I and Phase II of the program.

Accuracy:	98.4 percent of the installed and tested monitors met the required relative accuracy standards on the first attempt, while less than two percent needed appropriate monitor adjustments to meet the standards; SO <sub>2</sub> monitors achieved a median relative accuracy (i.e., deviation from the reference test method) of 3.2 percent; flow monitors, 3.5 percent; and NO <sub>x</sub> monitors, 3.3 percent.
Reliability:	SO <sub>2</sub> and flow monitors achieved a median reliability of 99.3 and 99.5 percent, respectively, while NO <sub>x</sub> monitors achieved a median reliability of 98.8 percent.

### **SO<sub>2</sub> Market Active; Volume of Allowances Transferred Between Distinct Entities in 1997 Exceeds the Total of 1994, 1995, and 1996 Combined**

Activity in the allowance market continued to increase in 1997. The volume of allowances transferred between unrelated parties in economically significant trades increased from 4.4 million in 1996 to 7.9 million in 1997. More than 80 percent of Phase I and Phase II affected utility companies have already engaged in at least one private transfer registered in ATS.

Following the all-time low cost of allowances of \$68 at the 1996 allowance auction, prices increased to \$110 in the 1997 auction. Later in 1997, prices dipped again to a low of \$88, to finish in 1997 at about \$100. Prices have increased again in the first half of 1998, with the auction price of \$117 and market indices of approximately \$190 in June.

## 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 SO<sub>2</sub> and NO<sub>x</sub> beginning in 1997, 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 <sub>2</sub>	Table 1	263	263	263	263	263
	Substitution and Compensating	182	161	153	Variable	Variable
	Opt-in	0	7	7	Variable	Variable
	<b>TOTAL</b>	<b>445</b>	<b>431</b>	<b>423</b>	<b>Variable</b>	<b>Variable</b>
NO <sub>x</sub>	Table 1	NA	144	170	171	171
	Substitution	NA	95	95	95	95
	Early-Election	NA	NA	272	Variable	Variable
	<b>TOTAL</b>	<b>NA</b>	<b>239</b>	<b>537</b>	<b>Variable</b>	<b>Variable</b>

This report discusses the process and results of determining compliance for these Phase I affected units. Detailed appendices provide information on 1997 emissions and utilization for both SO<sub>2</sub> and NO<sub>x</sub> affected sources, allowance holdings and deductions for SO<sub>2</sub> sources, and explanations of averaging plans and compliance flexibility and requirements for NO<sub>x</sub> sources.

## SO<sub>2</sub> PROGRAM

### 423 Units Underwent Annual Reconciliation for SO<sub>2</sub> in 1997

There were 416 affected utility units and seven opt-in units that underwent annual reconciliation in 1997 to determine whether sufficient allowances were held to cover emissions. These 423 units are listed in Appendix A and include 263 utility units specifically required to participate during Phase I, 153 utility units not initially required to participate until Phase II, but electing to participate early as part of multi-unit compliance plans, and seven other units that elected to join as part of the Opt-in Program.

The core 263 utility units, residing at 110 power plants, were selected by Congress in the 1990 Amendments to the Clean Air Act because they were the highest emitting and largest units. These units emitted 57 percent of all utility emissions in 1985, and had emission rates ranging from 2.5 to 10.2 lbs of SO<sub>2</sub>/mmBtu of heat input, with an average of 4.2 lbs/mmBtu. These units are often referred to as "Table 1 units" because they are officially listed in Table 1 of the allowance allocation regulation, 40 CFR 73.10.

An additional 153 utility units affected in 1997 have been designated by certain Table 1 units to serve either as substitution or compensating units<sup>2</sup>. Appendix B-1 delineates the relation of these units to their Table 1 counterparts. In 1997, there were 152 substitution units and one compensating unit designated.

The seven opt-in units that entered the program in July 1996 remain in the program. 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 SO<sub>2</sub> emissions, and receive their own allowances.

In 1997, there were 8 fewer units undergoing annual reconciliation than in 1996, and 22 fewer than in 1995. The change in number of units affected by the Phase I SO<sub>2</sub> provisions is due to the entry and exit of units in accordance with substitution and compensating plans of one or more of the original 263 Table 1 units and the entry of opt-in sources.

### New Requirements for Phase I Extension Units in 1997

Under the Acid Rain Program, certain units applied for and received approval of Phase I Extension

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<sup>2</sup>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 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.



plans during the Phase I permitting process. These units fell into two categories: “control units” which were required to cut their emission by 90 percent using qualifying technology<sup>3</sup> by 1997, and “transfer units” which reassigned their emissions reduction obligations to a control unit. Both kinds of units received extra SO<sub>2</sub> emissions allowances to cover the SO<sub>2</sub> 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.

Beginning in 1997, each of the 19 units designated as control units was required to show it had reduced its annual emission 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.

For 1997, all 19 control units demonstrated meeting the 90 percent reduction requirement and, therefore, did not surrender any 1997 extension allowances. The 1997 tonnage emissions limitation, though, was exceeded by six control units and ten transfer units and resulted in a surrender of a total of 92,768 vintage 1998 allowances. The deduction amounts for each Phase I extension unit are included in Appendix B-2.

### **1997 SO<sub>2</sub> Emissions Target was 7.1 Million Tons**

The number of allowances allocated in a particular year, the amount representing that year's allowable SO<sub>2</sub> emissions level, is the sum of allowance allocations granted to sources under several provisions of the Act. In 1997, the emissions target established by the program for the 423 participating units was 7.1 million tons. However, the total allowable SO<sub>2</sub> emission level in 1997 was actually 13.4 million tons, consisting of the 7.1 million 1997 allowances granted through the program and an additional 6.3 million allowances carried over, or banked, from 1996.

The initial allocation and the allowances for substitution and compensating units represent the basic allowances granted to units that authorize them to emit SO<sub>2</sub> under the Acid Rain Program. Additional allowances for the year 1997 were also made available through the allowance auctions, held annually since 1993. Other allowances issued in 1997 were from bonus 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.

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<sup>3</sup>Qualifying technology is defined in 40 CFR 72.2

**Exhibit 2**  
**Origin of 1997 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	271,334	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	1,024,178	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	15,838	Allowances for Compensating Units are the initial allocation granted to Phase II units which entered Phase I as compensating units.
Opt-in Allowances	95,882	Opt-in Allowances are provided to units entering the program voluntarily.
Small Diesel Allowances	27,578	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.
Conservation Allowances	11,834	Conservation Allowances are awarded to utilities that undertake efficiency and renewable energy measures prior to their first compliance year. The allowances come from a special Conservation and Renewable Energy Reserve set aside when the initial allowance allocation was made.
<b>TOTAL 1997 ALLOCATION</b>	<b>7,147,464</b>	
BANKED 1996 ALLOWANCES	6,288,335	Banked Allowances are those held over from 1995 and 1996 which can be used for compliance in 1997 or any future year.
<b>TOTAL 1997 ALLOWABLE</b>	<b>13,435,799</b>	

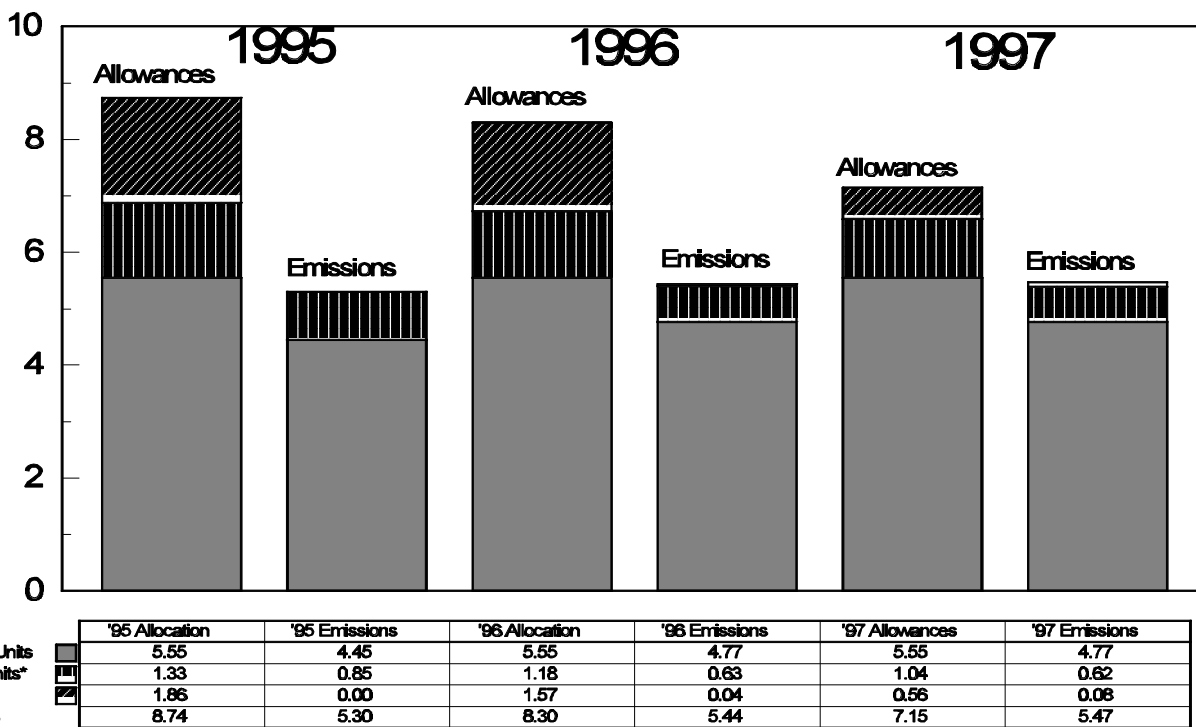
Beginning in the year 2000 at the onset of Phase II, the volume of allowances allocated annually to the Phase I units will be reduced and the requirement to hold allowances will be extended to smaller, cleaner plants. Nationwide, the cap for all utilities with an output capacity of greater than 25 megawatts 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.

## SO<sub>2</sub> COMPLIANCE RESULTS

### Phase I Units Better 1997 SO<sub>2</sub> Allowable Emissions Level by 23 Percent

The Phase I units affected in 1997 emitted at a level approximately 23 percent below 1997 allocations, as shown in Exhibit 3. Although this percentage is significantly lower than in 1996, it is not due to an increase in emissions but rather due to a decrease in allocations, primarily due to the much lower number of Phase I extension allowances allocated for 1997. The Phase I units emitted 5.5 million tons of SO<sub>2</sub>, expending only about 41 percent of the 13.4 million allowances available in 1997. Appendix B-3 reports the 1997 emission and utilization levels for all Phase I affected units, as well as a comparison to these levels in 1996 and 1995.

**Exhibit 3**  
**Summary of SO<sub>2</sub> Emissions versus Allocations**  
 (Millions of Tons)



\* There were 182 substitution and compensating units in 1995 and 161 and 153 such units in 1996 and 1997, respectively.

\*\* The source of the "other" emissions in 1996 and 1997 is the 7 opt-in units. The "other" allocations in all years consist of Phase I Extension, opt-in, small diesel, conservation and annual auction allowances.

Relative to 1996, the 263 Table 1 units increased their emissions by less than 10,000 tons, or less than one percent in 1997, while increasing their utilization by three percent. The 4.8 million tons emitted by these Table 1 units were still substantially below their 1997 allocation of 5.6 million allowable tons.

Just over half of the Table 1 units (52 percent) increased their emissions relative to 1996 by an average of 3,400 tons. Most of the remaining Table 1 units (44 percent) decreased their emissions from 1996 levels by an average of 3,900 tons. The remaining eight Table 1 units maintained the same zero emission level of 1996.

In terms of utilization, almost half (46 percent) of Table 1 units decreased their levels by an average of 10 percent, while just over half (51 percent) increased their utilization since 1996 by an average of 27 percent.

Substitution and compensating units in 1997 expended a larger percentage of their annual allocation than in 1996. In 1997, these 153 units were responsible for emitting approximately 621,000 tons of SO<sub>2</sub>, about 60 percent of their 1.04 million allocation. In 1996, 161 substitution and compensating units emitted approximately 610,000 tons of SO<sub>2</sub>, or slightly more than half of their allowable level.

Of the 153 units in 1997, 44 percent increased their emissions relative to 1996 by an average of 1,500 tons, while 30 percent of the units decreased their emissions by an average of 900 tons. The remainder of the units maintained their status as zero emitters.

Forty two percent of substitution and compensating units increased their utilization between 1996 and 1997, while 34 percent of units experienced a decrease in utilization. The remaining 24 percent of substitution and compensating units were not utilized again in 1997.

Opt-in units received 95,882 allowances in 1997 as a reflection of their baseline emissions levels, but contributed only 77,037 tons to 1997 emission levels. Although this is an increase of approximately 40,000 tons over 1996, the 1997 data represent operations for the entire calendar year of 1997, whereas in 1996, the opt-in units were only affected for the second half of the year.

### **Deducting Allowances for Compliance**

The total number of allowances deducted in 1997 was 5,480,210 which represents approximately 77 percent of all 1997 allowances issued. Almost all (99.9 percent) of the deducted allowances were for emissions. Exhibit 4 on the following page displays these allowance deductions, as well as the remaining bank of 1995, 1996, and 1997 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-3 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.

In 1997, Phase I units had a total of 5,474,440 allowances deducted for emissions. Of the 423 units, Paradise Unit 3 in Kentucky for the third year in a row surrendered the most allowances for emissions (173,285), an increase of 18 percent over 1996. Fifty units were not operated at all during the year and

surrendered no allowances. Half of the units surrendered under 7,000 allowances, while the average number of allowances deducted at a unit was 12,944.

The remaining 0.1 percent (5,770) of allowance deductions were made for underutilization and control-by-contract, which are explained in detail in Appendix B-4.

**Exhibit 4**  
**SO<sub>2</sub> Allowance Reconciliation Summary**

<b>Total Allowances Held in Accounts as of 1/30/98 (1995, 1996, &amp; 1997 Vintages)*</b>	<b>13,435,799</b>
Table 1 Unit Accounts	7,942,551
Substitution & Compensating Unit Accounts	1,288,988
Opt-in Accounts	85,126
Other Accounts**	4,119,134
<b>1997 Allowances Deducted for Emissions</b>	<b>5,474,440</b>
Table 1 Unit Accounts	4,774,609
Substitution & Compensating Unit Accounts	620,794
Opt-in Unit Accounts	79,037
<b>1997 Allowances Deducted Under Special Phase I Provisions***</b>	<b>5,770</b>
Table 1 Unit Accounts	1,733
Substitution & Compensating Unit Accounts	2,949
Opt-in Unit Accounts	1,309
<b>Banked Allowances</b>	<b>7,955,368</b>
Table 1 Unit Accounts	3,166,209
Substitution & Compensating Unit Accounts	665,245
Opt-in Unit Accounts	4,780
Other Accounts**	4,119,134

\* The number of allowances held in the Allowance Tracking System (ATS) accounts equals the number of 1997 allowances allocated (see Exhibit 2) plus the number of 1996 banked allowances. January 30, 1998 represents the Allowance Transfer Deadline, the point in time at which the 1997 Phase I affected unit accounts are frozen and after which no transfers of 1995, 1996, and 1997 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.

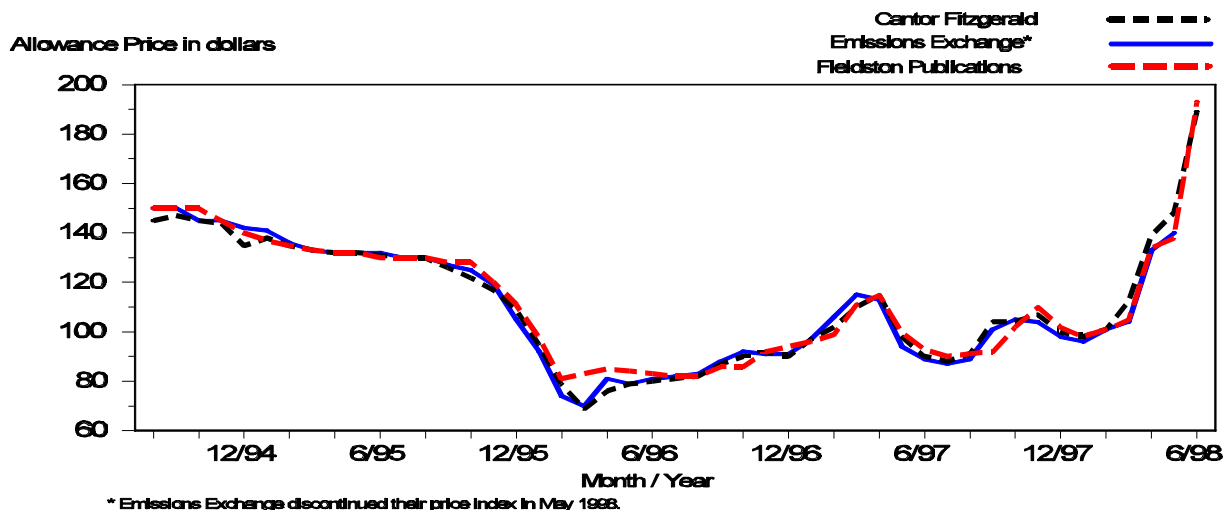
\*\*\* Allowances were deducted for both underutilization and control-by-contract provisions in 1997 (see Appendix B-4 for a thorough explanation).

## SO<sub>2</sub> ALLOWANCE MARKET

The flexibility provided by the Acid Rain Program enabled the 423 units affected in 1997 to pursue a variety of compliance options to meet their SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub>. The program's flexibility enabled all 423 sources to be in compliance in 1997 and significantly reduced the cost of achieving these emissions reductions as compared to the cost of a technological mandate.

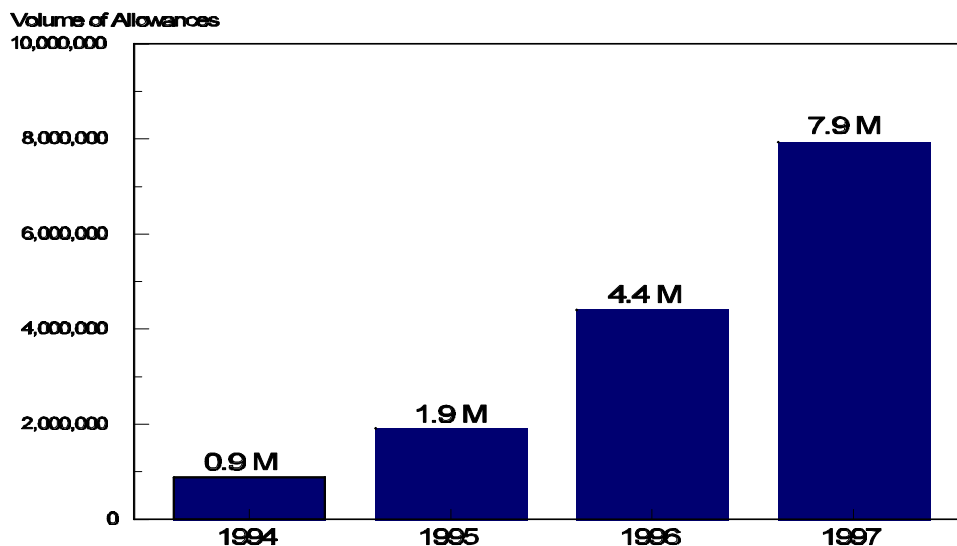
The marginal cost of reducing a ton of SO<sub>2</sub> from the utility sector should be reflected in the price of an allowance. The cost of reductions continues to be lower than anticipated when the Clean Air Act Amendments were enacted, and the price of allowances reflects this. The cost of compliance was initially estimated at \$400-1000/ton, but dropped to a low of just \$68/ton at the 1996 allowance auction. Following this low, however, the price of a current vintage year allowance climbed to \$110 in the 1997 auction, after which time it dipped once again into the \$88 range, only to finish 1997 at about \$100. Prices have increased during the first half of 1998, with a March 1998 auction price of \$117 and market indices of approximately \$190/ton in June, 1998. 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 two brokerage firms, Emissions Exchange Corporation and 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 continued to grow in 1997, with 1,429 transactions moving over 15 million allowances reported to 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 transferred rose from 1.9 million in 1995 to 4.4 million in 1996 and to 7.9 million in 1997, as shown in Exhibit 6. The total for 1997 exceeds the total of the three previous years combined. Growth is also evident in the subset of economically significant transfers representing only those allowances acquired by utilities (rather than all those exchanged by unrelated parties through the market); volume has increased from 700,000 allowances in 1995 to 1.6 million in 1996 and to 2.8 million in 1997. In addition, more than 80 percent of the accounts established for affected units under the program have been involved in at least one private transfer registered in ATS. Almost half of allowances with vintage years 1995 and 1996 have been involved in at least one transfer as well. To date, approximately 35 percent of 1997 allowances have been involved in a transfer under the Acid Rain Program.

**Exhibit 6**  
**Volume of SO<sub>2</sub> Allowances in Economically Significant Transfers**



EPA seeks to minimize transaction costs to parties trading allowances in the market by quickly and efficiently recording transfers reported to the Agency in ATS. In 1997, EPA processed 89 percent of allowance transactions within 24 hours of receipt, up slightly from the 1996 rate of 83 percent. Ninety-eight percent were processed within 5 days. These transactions, along with data on account balances and ownership, are posted on the Acid Rain Division's Internet site ([www.epa.gov/acidrain](http://www.epa.gov/acidrain)) on a daily basis in order to better inform trading participants. Also available are cumulative market statistics and analysis.

## **NO<sub>x</sub> PROGRAM**

Instead of using allowance trading to facilitate emissions reductions, the Title IV NO<sub>x</sub> program establishes standard emission limitations for affected units. Title IV of the 1990 Clean Air Act Amendments required EPA to establish NO<sub>x</sub> annual average emission limits (in pounds of NO<sub>x</sub> 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<sub>x</sub> emission limits beginning on January 1, 1996 for Group 1 boilers that were also part of the Phase I SO<sub>2</sub> program. (Group 1 boilers are dry bottom, wall-fired boilers and tangentially fired boilers.) Phase I dry bottom wall-fired boilers are subject to a NO<sub>x</sub> emission limit of 0.50 lb/mmBtu; Phase I tangentially fired boilers are subject to a NO<sub>x</sub> 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, Group 1, Phase II NO<sub>x</sub> 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<sub>x</sub> 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, cyclones, 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<sub>x</sub> 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<sub>x</sub> UNITS**

### **265 Phase I Units Were Subject to Emission Limitations in 1997**

In 1997, 265 coal-fired utility units were subject to the Title IV Phase I emission limitations for NO<sub>x</sub>, an increase of 26 units from 1996. The 265 Phase I NO<sub>x</sub> affected units include 170 Table 1 units and 95 substitution units whose owners chose to participate in Phase I as part of an SO<sub>2</sub> compliance strategy. This group of units (along with one additional unit whose compliance extension expired at the end of 1997) will be subject to the Phase I emission limitations throughout Phase I and Phase II. Exhibit 7 shows the number of Phase I NO<sub>x</sub> affected units by boiler type.



**Exhibit 7**  
**Phase I NO<sub>x</sub> Units by Boiler Type**

Boiler Type	Standard Emission Limit	Table 1 Units	Substitution Units	All Units
Tangentially fired Boilers	0.45	93	42	135
Dry Bottom Wall-fired Boilers	0.50	77	53	130

**Phase I NO<sub>x</sub> Compliance Options**

For each Phase I NO<sub>x</sub> affected unit, a utility can comply with the applicable standard emission limitation, or may qualify for one of three 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<sub>x</sub> 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<sub>x</sub> control equipment.
- ! **Phase I NO<sub>x</sub> Extensions.** Twenty-seven Group 1 boilers affected in Phase I qualified for a Phase I NO<sub>x</sub> extension for 1996. All of the extensions expired on December 31, 1996, except for one that expired on July 31, 1997, and another that expired on December 31, 1997.

Exhibit 8 summarizes the compliance options chosen by Phase I affected NO<sub>x</sub> units for 1997. As in 1996, averaging was the most widely chosen compliance option. For 1997, utilities submitted 24 averaging plans involving 204 Phase I NO<sub>x</sub> units. For seven plans involving 22 units, the averaging plan was not necessary to balance compliance among units; all units within the plan met their applicable emission limit individually. See Appendix C-1: List of Averaging Plans and Results in 1997.

**Exhibit 8**  
**Compliance Options Chosen in 1997**

Compliance Option	Number of Units
Compliance with Standard Emission Limitation	52
Emissions Averaging	204
Alternative Emission Limitation	7
<b>SUBTOTAL</b>	263
Pending Alternative Emission Limitation Petition	1
Pending Alternative Emission Limitation Petition for Partial Year Compliance	1
Part 76 Phase I NO <sub>x</sub> Extension	1
<b>TOTAL</b>	266

## PHASE I NO<sub>x</sub> COMPLIANCE RESULTS

EPA has determined that 263 out of the 265 Phase I NO<sub>x</sub> units met the required emission limit through compliance with either the standard emission limitation, emissions averaging, or an alternative emission limitation<sup>4</sup>. The two other Phase I units are conditionally in compliance pending a decision on their alternative emission limitation petitions which was pending as of July 1998. The 266<sup>th</sup> unit will become a Phase I affected unit in 1998. See Appendix C-2: Compliance Results for the 266 NO<sub>x</sub> Affected Units. For a more detailed description of EPA's methodology for determining compliance with Phase I NO<sub>x</sub> limits, see Appendix C-4 in the Acid Rain Program 1996 Compliance Report.

### NO<sub>x</sub> Emission Rate Reduction

Many units emitted at rates well below the emission limits, as shown in Exhibit 9. Utilities operated the affected group of Phase I NO<sub>x</sub> boilers at NO<sub>x</sub> emission rates approximately 16 percent below the allowable rate in 1997, compared to 18 percent below in 1996.

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<sup>4</sup>

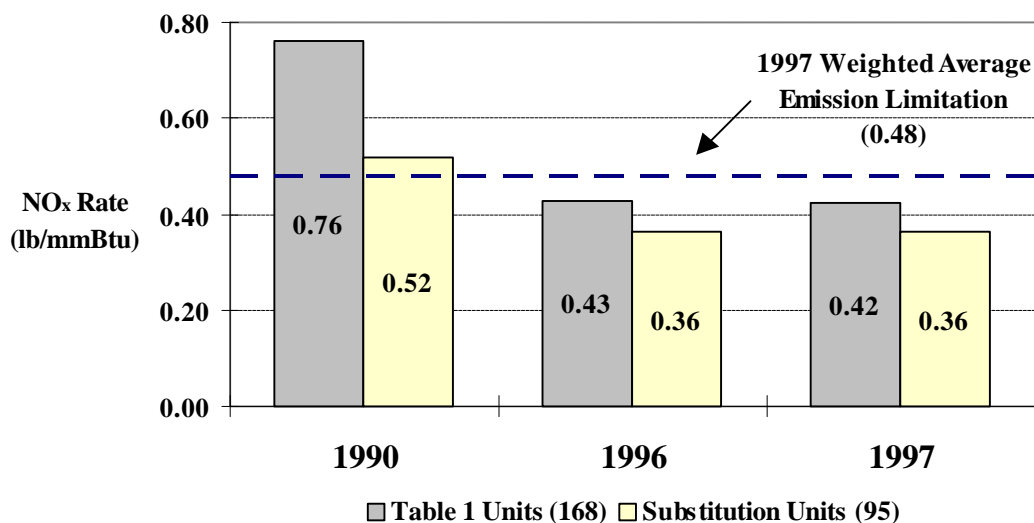
The analyses in this section focus on these 263 units.

**Exhibit 9**  
**Percentage Compliance Relative to Allowable Emission Rate in 1997**

Percent Below Applicable Limit	Units Subject to Standard Limit	Units Using Averaging	Units Subject to AEL Demonstration	Total
0 - 10%	20	99	4	123
10% - 25%	15	87	2	104
More than 25%	17	18	1	36
Total	52	204	7	263

From 1990<sup>5</sup> to 1997, the average NO<sub>x</sub> emission rate of the 263 Phase I units declined by 42 percent (from 0.69 lb/mmBtu to 0.40 lb/mmBtu). As shown in Exhibit 10, on average, both Table 1 and substitution units were below the average Phase I emission limit of 0.48 lb/mmBtu (the 1997 heat input weighted average of the applicable limits).

**Exhibit 10**  
**Average NO<sub>x</sub> Emission Rates for 263 Phase 1 Units**



**NO<sub>x</sub> Mass Emissions Reduction**

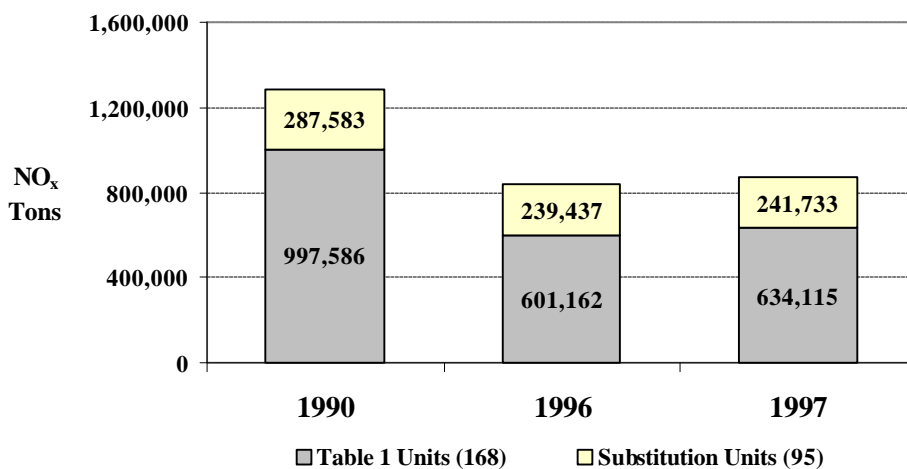
Total NO<sub>x</sub> mass emissions also declined from 1990 to 1997, but not as significantly as the NO<sub>x</sub> emission rate. Exhibit 11 illustrates the change in NO<sub>x</sub> mass emissions from 1990 to 1997 for Table 1 and substitution units. The Table 1 units exhibited a 36 percent reduction in NO<sub>x</sub> tons, and the substitution units showed a 16 percent reduction. For the 263 Phase I units, annual NO<sub>x</sub> emissions reductions

<sup>5</sup>

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

between 1990 and 1997 totaled approximately 409,322 tons, or a 32 percent reduction. However, NO<sub>x</sub> mass emissions in 1997 increased slightly from 1996, attributable to greater electrical production, as evidenced by a five percent increase in heat input. Without further reductions in emissions rates, NO<sub>x</sub> emissions would be expected to rise with increased utilization. As in 1996, the lower percentage of reductions for substitution units is probably attributable to the fact that many of these units were already lower emitters subject to New Source Performance Standards (NSPS).

**Exhibit 11**  
**NO<sub>x</sub> Mass Emissions for 263 Phase I Units**



**PHASE II EARLY ELECTION UNITS**

**272 Units Were Subject to Early Election Requirements in 1997**

Nineteen ninety-seven was the first year in which utilities could choose to use the "Early Election" compliance option provided in Part 76. Owners and operators of 272 units applied for this option. Exhibit 12 shows the number of Early Election units by boiler type.

**Exhibit 12**  
**Distribution of 1997 Early Election Units by Boiler Type**

Boiler Type	Standard Emission Limit	Operating Group 1, Phase 2 Units	Early Election Units	Percent of Units Electing
Tangentially fired	0.45	300	170	56.7%
Dry Bottom Wall-fired	0.50	314	102	32.5%
Total		614	272	44.3%

## PHASE II EARLY ELECTION COMPLIANCE RESULTS

For 1997, EPA determined that 270 units complied with the Phase I, Group 1 emission limitations and have continued eligibility for Early Election in 1998 through 2007. An additional two units subject to Early Election complied with the Phase I, Group 1 emission limit, however, their compliance is pending, while their permit is being reviewed. See Appendix C-3: Compliance Results for the 272 Early Election Units in 1997.

### NO<sub>x</sub> Emission Rate Reduction

In 1997, many Early Election units emitted at rates well below the applicable emission limit, as shown in Exhibit 13. Utilities operated dry-bottom wall-fired boilers at NO<sub>x</sub> emission levels approximately 23 percent below the limit of 0.50 lb/mmBtu and tangentially fired boilers approximately 18 percent below the limit of 0.45 lb/mmBtu.

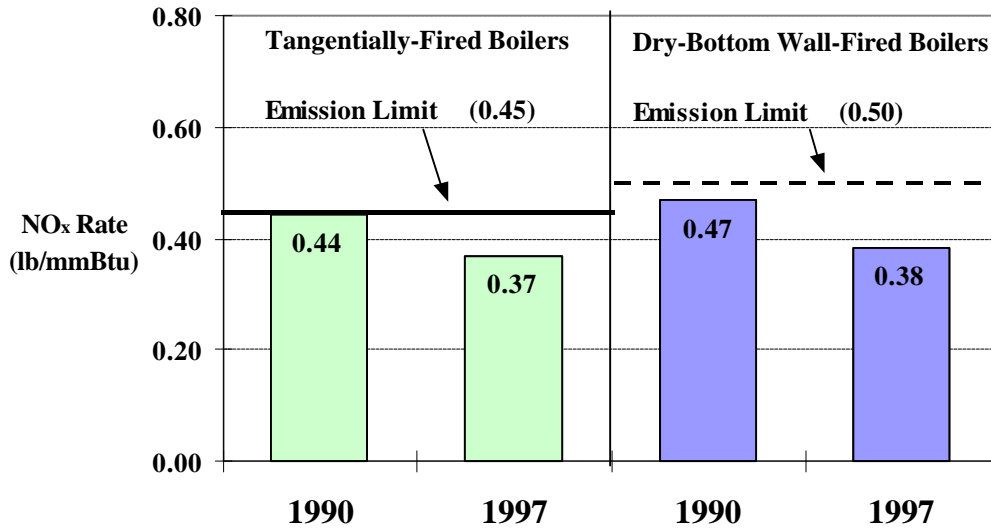
**Exhibit 13**  
**Percentage Compliance Relative to Emission Limits**

Percent Below Applicable Emission Limitation	Early Election Units
0 - 10%	94
10 - 25%	112
More than 25%	66
Total	272

Average NO<sub>x</sub> emission rates for Early Election units have declined by 17 percent, from 0.46 lb/mmBtu in 1990 to 0.38 lb/mmBtu in 1997. This decline is less dramatic than the decline at Phase I NO<sub>x</sub> units because 51 percent of the Early Election units are newer units already subject to the NSPS NO<sub>x</sub> emission limits. The overall NO<sub>x</sub> emission rate for these units is comparable to the average rate of 0.40 lb/mmBtu for all Phase I NO<sub>x</sub> units.

Exhibit 14 summarizes the NO<sub>x</sub> emission rate reductions from 1990 to 1997 by boiler type for the 262 Early Election units which were operating in 1990.

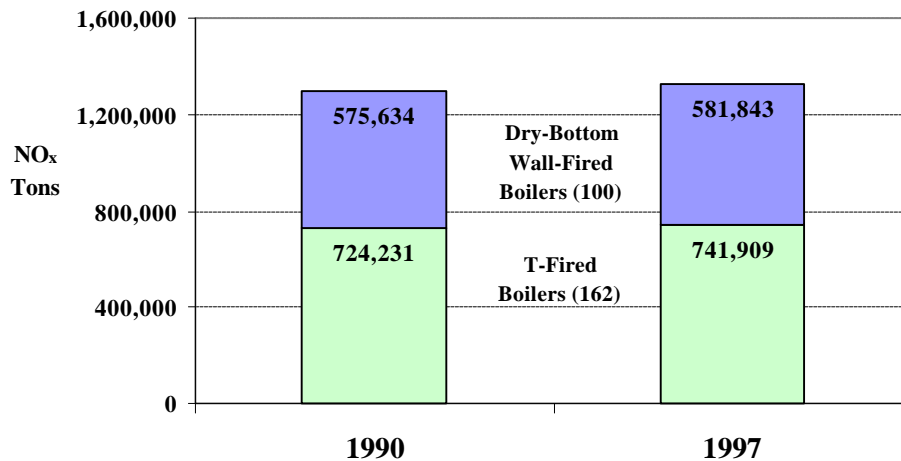
**Exhibit 14**  
**Average NO<sub>x</sub> Emission Rate for 262 Early Election Units**



**NO<sub>x</sub> Mass Emissions Reduction**

The total NO<sub>x</sub> mass emissions from the operating Early Election units increased by 23,887 tons (or 2 percent) from 1990 to 1997, reflecting an increase in utilization (see Exhibit 15). For the 262 Early Election units operating in 1990, heat input increased during the seven year period by approximately 24 percent.

**Exhibit 15**  
**NO<sub>x</sub> Mass Emissions for 262 Early Election Units**



## SO<sub>2</sub> AND NO<sub>x</sub> MONITORING IN 1997

In order to verify the reductions of SO<sub>2</sub> and NO<sub>x</sub> emissions mandated under the Clean Air Act and to support the SO<sub>2</sub> allowance trading program, a fundamental objective of the Acid Rain Program is to ensure accurate accounting of pollutant emissions from affected boilers and turbines. To implement this objective, concentrations of emitted SO<sub>2</sub> and NO<sub>x</sub> 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 SO<sub>2</sub> mass emissions and NO<sub>x</sub> emission rates. SO<sub>2</sub> mass emissions are determined using CEMS to measure SO<sub>2</sub> concentration and stack flow rate. NO<sub>x</sub> emission rates, on the other hand, are determined with NO<sub>x</sub> and diluent gas (CO<sub>2</sub> or O<sub>2</sub>) 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 SO<sub>2</sub> and NO<sub>x</sub>, and 15 percent for flow (beginning January 1, 2000, the flow standard will also be 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 SO<sub>2</sub> and NO<sub>x</sub> and less than or equal to 10 percent for flow (beginning January 1, 2000, the flow standard for superior accuracy will also be 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 16 highlights the relative accuracy results achieved by Acid Rain CEMS in 1997.

### Exhibit 16 1997 Relative Accuracy Test Audit (RATA) Results

	SO <sub>2</sub> Concentration	Volumetric Flow Rate	NO <sub>x</sub> Rate
Mean Relative Accuracy	3.9%	4.2%	4.0%
Median Relative Accuracy	3.2%	3.5%	3.3%
Percent Meeting Relative Accuracy Standard	97%	99%	97%

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 17 shows the monitor availabilities reported in 1997 and indicates that the CEMS used to determine SO<sub>2</sub> mass emissions and NO<sub>x</sub> emission rates are well maintained and fulfilling the high performance standards required by the Acid Rain Program.

**Exhibit 17**  
**1997 CEMS Availability**

Parameter	Median % Availability at End of 1997	
	Coal-Fired Units	Oil and Gas Units
SO <sub>2</sub>	99.3	98.3
Flow	99.6	98.7
NO <sub>x</sub>	99.1	97.7



## CONCLUSION

Both the Acid Rain Program's rate-based approach to NO<sub>x</sub> reduction and cap-and-trade approach to SO<sub>2</sub> reduction have been very successful. In 1997, all 502 Phase I affected utility units not only met their compliance goals, but exceeded them, achieving an overall reduction of 409,322 tons of NO<sub>x</sub> from 1990 levels despite an increase in generation, and maintaining the extraordinary reductions of more than 5 million tons of SO<sub>2</sub> from 1980 levels, first achieved in 1995. Additionally, the 272 Phase II units newly affected for NO<sub>x</sub> in 1997 under the early election program had increased emissions of only two percent since 1990, while their utilization increased by 24 percent during the same period.

Exceedance of compliance goals translates into additional environmental and health benefits. For example, the greater and earlier reductions of SO<sub>2</sub> have resulted in a 10 - 25 percent drop in rainfall acidity in the Northeast in 1995<sup>6</sup>.

One factor mitigating the benefit of the overcompliance in the SO<sub>2</sub> program, of course, is the ability to use banked allowances in the future. The 40 percent of 1995 allowances, 35 percent of 1996 allowances, and 23 percent of 1997 allowances that were not retired for compliance purposes can be used to cover emissions in a later year. However, immediate health and environmental benefits are arguably more valuable than a benefit several years from now.

The NO<sub>x</sub> 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. After the year 2000 when both programs are in full implementation, SO<sub>2</sub> emissions are expected to decline steadily to the emissions cap level of 8.95 million tons, whereas NO<sub>x</sub> 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 SO<sub>2</sub> and NO<sub>x</sub> components of the Acid Rain Program have been very successful in 1997. The significant progress evident at this stage of the program is encouraging. Through the continued efforts of Phase I participants and by additional reductions from Phase II units beginning in 2000, the long term goals of the Acid Rain Program -- a 10 million ton reduction of SO<sub>2</sub> emissions and two million ton reduction of NO<sub>x</sub> emissions -- will be achieved.

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<sup>6</sup> U.S. Geological Survey, Trends in Precipitation Chemistry in the United States, 1983-94 - An Analysis of the Effects in 1995 of Phase I of the CAAA of 1990, Title IV, USGS 96-0346, Washington, DC, June 1996.

**APPENDIX A: PHASE I AFFECTED (✓) AND EARLY ELECTION (E) UNITS IN 1997**

<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	✓	✓	CO	Pawnee	1		E
		2	✓	✓	CO	Rawhide	101		E
		3	✓	✓	CO	Ray D Nixon	1		E
		4	✓	✓					
		5	✓	✓					
AL	E C Gaston	1	✓	✓	CO	Valmont	5		E
		2	✓	✓	CT	Bridgeport Harbor	BHB3		E
		3	✓	✓	FL	Big Bend	BB01	✓	
		4	✓	✓			BB02	✓	
		5	✓	✓			BB03	✓	
AL	Gadsden	1	✓	✓			BB04	✓	✓
		2	✓	✓					
AR	Flint Creek	1		E	FL	C D McIntosh	3		E
AR	Independence	1		E	FL	Crist	4	✓	✓
		2		E			5	✓	✓
							6	✓	✓
AR	White Bluff	1		E			7	✓	✓
		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	FL	St Johns River	1		E
		3		E			2		E
		4		E					
AZ	Coronado	U1B		E	FL	Scholz	1	✓	✓
		U2B		E			2	✓	✓
AZ	Navajo	1		E	FL	Seminole	1		E
		2		E			2		E
		3		E	GA	Arkwright	1	✓	✓
AZ	Springerville	1		E			2	✓	✓
		2		E			3	✓	✓
							4	✓	✓
CO	Craig	C1		E	GA	Bowen	1BLR	✓	✓
		C2		E			2BLR	✓	✓
		C3		E			3BLR	✓	✓
CO	Comanche	1		E			4BLR	✓	✓
		2		E					

**APPENDIX A: PHASE I AFFECTED (✓) AND EARLY ELECTION (E) UNITS IN 1997**

<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>
GA	Hammond	1	✓	✓	IA	Lansing	4		E
		2	✓	✓					
		3	✓	✓					
		4	✓	✓					
GA	Harllee Branch	1	✓		IA	Milton L Kapp	2	✓	✓
		2	✓	✓					
		3	✓						
		4	✓						
GA	Jack McDonough	MB1	✓	✓	IA	Riverside	9	✓	✓
		MB2	✓	✓					
GA	Kraft	1	✓	✓	IL	Baldwin	1	✓	
		2	✓	✓			2	✓	
		3	✓	✓			3	✓	✓
GA	Mcintosh	1	✓	✓	IL	Coffeen	1	✓	
							2	✓	
GA	Mitchell	3	✓	✓	IL	Collins	1	✓	
GA	Scherer	3		✓			2	✓	
GA	Wansley	1	✓	✓	IL	Crawford	7		E
		2	✓	✓			8		E
GA	Yates	Y1BR	✓	✓	IL	Dallman	33		E
		Y2BR	✓	✓					
		Y3BR	✓	✓					
		Y4BR	✓	✓					
		Y5BR	✓	✓					
		Y6BR	✓	✓					
		Y7BR	✓	✓					
IA	Ames	7		E	IL	Havana	1	✓	
		8		E			2	✓	
							3	✓	
							4	✓	
IA	Burlington	1	✓	✓		5	✓		
IA	Council Bluffs	1		E		6	✓		
		2		E		7	✓		
		3		E		8	✓		
IA	Des Moines	11	✓		IL	Hennepin	2	✓	✓
IA	George Neal North	1	✓		IL	Hutsonville	5	✓	✓
		2		E			6	✓	✓
		3		E					
IA	George Neal South	4		E					

**APPENDIX A: PHASE I AFFECTED (✓) AND EARLY ELECTION (E) UNITS IN 1997**

<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>		
IL	Joppa Steam	1	✓	✓	IN	Dean H Mitchell	4		E		
		2	✓	✓			5		E		
		3	✓	✓			6		E		
		4	✓	✓			11		E		
		5	✓	✓							
		6	✓	✓							
IL	Kincaid	1	✓		IN	Elmer W Stout	50	✓	✓		
		2	✓				60	✓	✓		
IL	Meredosia	01	✓	✓	IN	F B Culley	2	✓	✓		
		02	✓	✓			3	✓	✓		
		03	✓	✓			IN	Frank E Ratts	1SG1	✓	✓
		04	✓	✓					2SG1	✓	✓
		05	✓	✓			IN	Gibson	1	✓	✓
		06	✓						2	✓	✓
IL	Newton	1	✓	✓	IN	H T Pritchard	3		✓		
		2	✓	✓			4		✓		
IL	Vermilion	1	✓	✓	IN	H T Pritchard	5	✓	✓		
		2	✓	✓			6	✓	✓		
IL	Waukegan	7		E	IN	Merom	1SG1		E		
		8		E			2SG1		E		
IL	Will County	3		E	IN	Michigan City	12	✓			
		4		E							
IL	Wood River	1	✓		IN	Petersburg	1	✓	✓		
IN	A B Brown	1		E	IN	Petersburg	2	✓	✓		
		2		E			3		✓		
IN	Bailly	7	✓		IN	R M Schahfer	4		✓		
		8	✓				15		E		
IN	Breed	1	✓		IN	R M Schahfer	17		E		
							18		E		
IN	Cayuga	1	✓	✓	IN	R Gallagher	1	✓	✓		
		2	✓	✓			2	✓	✓		
IN	Clifty Creek	3	✓		IN	Rockport	3	✓	✓		
		4	✓				4	✓	✓		
		5	✓				MB1		E		
		6	✓				MB2		E		
							IN	State Line	3		E
							IN	Tanners Creek	U4	✓	

**APPENDIX A: PHASE I AFFECTED (✓) AND EARLY ELECTION (E) UNITS IN 1997**

<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>
IN	Wabash River	1	✓	✓	KY	Hmp&L Station 2	H1	✓	✓
		2	✓	✓			H2	✓	✓
		3	✓	✓					
		5	✓	✓					
		6	✓	✓					
IN	Warrick	1	✓		KY	Paradise	3	✓	
		2	✓						
		3	✓						
		4	✓						
IN	Whitewater Valley	1		E	KY	R D Green	G1	✓	✓
		2		E			G2	✓	✓
KS	La Cygne	1	✓		KY	Shawnee	10	✓	
		2		✓					
KS	Nearman Creek	1		E	LA	Big Cajun 2	2B1		E
							2B2		E
							2B3		E
KS	Riverton	39		E	LA	Dolet Hills	1		E
		40		E					
KY	Cane Run	4		E	LA	R S Nelson	6		E
		5		E					
		6		E			LA	Rodemacher	2
KY	Coleman	C1	✓	✓	MA	Brayton Point	2	✓	
		C2	✓	✓					
		C3	✓	✓			MA	Mount Tom	1
KY	Cooper	1	✓	✓	MD	C P Crane	1	✓	
		2	✓	✓			2	✓	
KY	D B Wilson	W1		E	MD	Chalk Point	1	✓	✓
							2	✓	✓
KY	E W Brown	1	✓	✓	MD	Morgantown	1	✓	✓
		2	✓	✓			2	✓	✓
		3	✓	✓					
KY	East Bend	2	✓	✓	MD	R P Smith	9	✓	✓
							11	✓	✓
KY	Ghent	1	✓	✓	MI	B C Cobb	4	✓	E
							5		E
KY	Green River	5	✓	✓	MI	Dan E Karn	1	✓	
KY	H L Spurlock	1	✓	✓			2	✓	

**APPENDIX A: PHASE I AFFECTED (✓) AND EARLY ELECTION (E) UNITS IN 1997**

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

**APPENDIX A: PHASE I AFFECTED (✓) AND EARLY ELECTION (E) UNITS IN 1997**

<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>
		3		E	NC	G G Allen	1		E
							2		E
							3		E
							4		E
							5		E
					NC	Marshall	1		E
							2		E
							3		E
							4		E
					NC	Riverbend	7		E
							8		E
							9		E
							10		E
					ND	Antelope Valley	B1		E
							B2		E
					ND	Leland Olds	1		E
					ND	Stanton	10		E
					NE	Gerald Gentleman	1		E
							2		E
					NE	Gerald Whelan	1		E
					NE	Nebraska City	1		E
					NE	North Omaha	4		E
					NE	Platte	1		E
					NH	Merrimack	1	✓	
							2	✓	
					NJ	B L England	1	✓	
							2	✓	
					NM	Escalante	1		E
					NV	Mohave	1		E
							2		E
					NV	North Valmy	1		E
							2		E
					NV	Reid Gardner	4		E
					NY	C R Huntley	67		E
							68		E

**APPENDIX A: PHASE I AFFECTED (✓) AND EARLY ELECTION (E) UNITS IN 1997**

<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>
NY	Dunkirk	1		E					
		2	✓	E					
		3	✓	✓					
		4	✓	✓					
NY	Greenidge	6	✓	✓					
NY	Kintigh	1		E					
NY	Milliken	1	✓	✓					
		2	✓	✓					
NY	Northport	1	✓						
		2	✓						
		3	✓						
		4	✓						
NY	Oswego	4	✓						
		5		✓					
		6	✓						
NY	Port Jefferson	3	✓						
		4	✓						
NY	Roseton	1	✓						
		2	✓						
NY	S A Carlson	9		E					
		10		E					
		11		E					
		12		E					
OH	Acme	13	✓						
		14		✓					
		15							
		✓							
		16		✓					
		91		✓					
		92		✓					
OH	Ashtabula	7	✓	✓					
		8	✓						
		9	✓						
		10		✓					
		11		✓					
OH	Avon Lake	9	✓						
		10		✓					
		11		✓					
		12		✓					



**APPENDIX A: PHASE I AFFECTED (✓) AND EARLY ELECTION (E) UNITS IN 1997**

<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	Bay Shore	1	✓		OH	Muskingum River	1		✓		
		2	✓	2			✓				
		3	✓	3			✓				
		4	✓	4			✓				
							5	✓			
OH	Cardinal	1	✓		OH	Niles	1	✓			
		2	✓	2			✓				
OH	Conesville	1	✓		OH	Picway	9	✓	✓		
		2	✓								
		3	✓	✓							
		4	✓	✓							
		5		E							
		6		E							
OH	Eastlake	1	✓	✓	OH	R E Burger	1	✓			
		2	✓	✓			2	✓			
		3	✓	✓			3	✓			
		4	✓	✓			4	✓			
		5	✓				5	✓			
							6	✓			
OH	Edgewater	11	✓		OH	Toronto	9	✓			
		12	✓				10	✓	✓		
		13	✓	✓			11	✓	✓		
OH	Gen J M Gavin	1	✓		OH	W H Sammis	5	✓	✓		
		2	✓				6	✓	✓		
							7	✓			
OH	Gorge	25	✓	✓	OH	W H Zimmer	1		E		
		26	✓	✓			5	✓	✓		
							6	✓	✓		
							7	✓	✓		
OH	J M Stuart	1		✓	OH	Walter C Beckjord	5	✓	✓		
		2	✓				6	✓	✓		
		3	✓								
		4	✓								
OH	Kyger Creek	1	✓		OK	Muskogee	4		E		
		2	✓				5		E		
		3	✓				6		E		
		4	✓								
		5	✓								
OH	Lake Shore	18	✓		OK	Northeastern	3313		E		
		91		✓			3314		E		
		92	✓				OK	Sooner	1		E
		93	✓						2		E
		94	✓								
OH	Miami Fort	5-1	✓		OR	Boardman	1SG		E		
		5-2		✓							
		6	✓	✓			PA	Armstrong	1	✓	✓
		7	✓						2	✓	✓

**APPENDIX A: PHASE I AFFECTED (✓) AND EARLY ELECTION (E) UNITS IN 1997**

<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>
							3	✓	✓
							4	✓	✓
PA	Bruce Mansfield	1	✓	✓					
		2	✓	✓	PA	Sunbury	3	✓	✓
		3		E			4	✓	✓
PA	Brunner Island	1	✓	✓	PA	Titus	1		E
		2	✓	✓			2		E
		3	✓	✓			3		E
PA	Cheswick	1	✓	✓	SC	Cross E		1	
PA	Conemaugh	1	✓	✓			2		E
		2	✓	✓					
PA	Cromby	1		E	SC	W S Lee	1		E
							2		E
							3		E
PA	Eddystone	1		E	TN	Allen	1	✓	
		2		E			2	✓	
PA	Hatfield's Ferry	1	✓				3	✓	
		2	✓						
		3	✓		TN	Cumberland	1	✓	
							2	✓	
PA	Homer City	1		E					
		2		E	TN	DuPont	JVD1	✓	
		3		E		Johnsonville	JVD2	✓	
							JVD3	✓	
PA	Keystone	1		E			JVD4	✓	
		2		E					
					TN	Gallatin	1	✓	✓
PA	Martins Creek	1	✓	✓			2	✓	✓
		2	✓	✓			3	✓	✓
		3	✓				4	✓	✓
		4	✓						
					TN	John Sevier	1		E
PA	Mitchell	33	✓	✓			2		E
							3		E
PA	Montour	1		E			4		E
		2		E					
					TN	Johnsonville	1	✓	✓
PA	New Castle	1	✓	✓			2	✓	✓
		2	✓	✓			3	✓	✓
		3		E			4	✓	✓
		4		E			5	✓	✓
		5		E			6	✓	✓
							7	✓	✓
PA	Portland	1	✓	✓			8	✓	✓
		2	✓	✓			9	✓	✓
							10	✓	✓
PA	Shawville	1	✓	✓					
		2	✓	✓	TX	Big Brown	1		E

**APPENDIX A: PHASE I AFFECTED (✓) AND EARLY ELECTION (E) UNITS IN 1997**

<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>
		2		E			3		E
					UT	Bonanza	1-1		E
					UT	Carbon	1		E
TX	Coletto Creek	1		E			2		E
TX	Gibbons Creek	1		E	UT	Gadsby	3		✓
TX	Harrington	061B		E	UT	Hunter	1		E
		062B		E			2		E
		063B		E					
					UT	Huntington	1		E
TX	J K Spruce	BLR1		E					
					UT	Intermountain	1SGA		E
TX	J T Deely	1		E			2SGA		E
		2		E					
					VA	Chesapeake	1		E
TX	Limestone	LIM1		E			2		E
		LIM2		E			4		E
					VA	Chesterfield	3		E
TX	Martin Lake	1		E			4		E
		2		E					
		3		E					
					VA	Glen Lyn	51		E
TX	Monticello	1		E			52		E
		2		E					
		3		E	VA	Possum Point	3		E
					VA	Potomac River	1		E
TX	Oklaunion	1		E			2		E
							3		E
TX	Pirkey	1		E			4		E
							5		E
TX	Sam Seymour	1		E					
		2		E					
		3			VA	Yorktown	1		E
			E				2		E
					WA	Centralia	BW21		E
TX	San Miguel	SM-1		E			BW22		E
TX	Sadow	4		E					
					WI	Alma	B4	✓	✓
TX	Tolk	171B		E			B5	✓	✓
		172B		E					
					WI	Blount Street	8		E
TX	W A Parish	WAP5		E			9		E
		WAP6		E					
		WAP7		E	WI	Columbia	1		E
		WAP8		E			2		E
					WI	Edgewater	3	✓	
TX	Welsh	1		E			4	✓	
		2		E					

**APPENDIX A: PHASE I AFFECTED (✓) AND EARLY ELECTION (E) UNITS IN 1997**

<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>
		5		E	WV	Kammer	1	✓	
WI	Genoa	1	✓	✓			2	✓	
							3	✓	
WI	J P Madgett	B1	✓	✓	WV	Mitchell	1	✓	✓
							2	✓	✓
WI	Nelson Dewey	1	✓						
		2	✓		WV	Mountaineer	1		E
WI	North Oak Creek	1	✓						
		2	✓		WV	Mt Storm	1	✓	✓
		3	✓				2*	✓	
		4	✓				3	✓	✓
WI	Port Washington	1		✓	WV	Pleasants	1		✓
		2		✓			2		✓
		3		✓					
		4		✓	WV	Rivesville	7	✓	
		5		✓			8	✓	
WI	Pulliam	5	✓		WV	Willow Island	1	✓	
		6	✓				2	✓	
		7	✓	✓					
		8	✓	✓	WY	Dave Johnston	BW41		E
							BW42		E
WI	Rock River	1	✓		WY	Jim Bridger	BW71		✓
		2	✓				BW72		✓
WI	South Oak Creek	5	✓	✓			BW73		✓
		6	✓	✓			BW74		E
		7	✓	✓					
		8	✓	✓	WY	Laramie River	1		E
							2		E
WI	Valley	1		✓			3		E
		2		✓					
		3		✓	WY	Wyodak	BW91		✓
		4		✓					
WI	Weston	1	✓	✓					
		2	✓	✓					
		3		✓					
									* NOx extension granted to Mt Storm Unit 2 through December 31, 1997.
WV	Albright	1	✓	✓					
		2	✓	✓					
		3	✓	✓					
WV	Fort Martin	1	✓	✓					
		2	✓						
WV	Harrison	1	✓	✓					
			2						
✓	✓			3					
✓	✓								

**APPENDIX B-1:**

**Table 1 Units Designating Substitution and Compensating Units - 1997**

**Substitution Units**

<b>Table 1 Units</b>			<b>Substitution Units</b>		
<u>State</u>	<u>Plant Name</u>	<u>Units</u>	<u>State</u>	<u>Plant Name</u>	<u>Units</u>
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	1,2,3,4,5,6,7,8
IL	Kincaid	1,2	IL	Collins	1,2,3
IL	Meredosia	5	IL	Meredosia	1,2,3,4,6
			IL	Hutsonville	5,6
			IL	Newton	1,2
			IL	Grand Tower	7,8
IL	Vermilion	2	IL	Vermilion	1
IN	Petersburg	1,2	IN	H T Pritchard	5

**APPENDIX B-1:**

**Table 1 Units Designating Substitution and Compensating Units - 1997**

**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>
KY	Coleman	C1, C2	→	KY	R D Green	G1, G2
MD	C P Crane	2	→	MS	R D Morrow	1,2
MD	Chalk Point	1,2	→	MD	Chalk Point	4
MD	Morgantown	1,2	→	MD	Chalk Point	3
MI	J H Campbell	1,2	→	MI	Dan E Karn	1,2
				MI	J R Whiting	2,3
				MI	JH Campbell	3
				MI	JC Weadock	7,8
				MI	BC Cobb	4
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	1,2,3,4
				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
NY	Dunkirk	3,4	→	NY	Oswego	4,5,6
				NY	Roseton	1,2
				NY	Dunkirk	2
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

**APPENDIX B-1:**

**Table 1 Units Designating Substitution and Compensating Units - 1997**

**Substitution Units**

<b>Table 1 Units</b>			<b>Substitution Units</b>		
<u>State</u>	<u>Plant Name</u>	<u>Units</u>	<u>State</u>	<u>Plant Name</u>	<u>Units</u>
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
WV	Albright	3	MD	R P Smith	9
WV	Fort Martin	2	MD	R P Smith	11
WV	Harrison	1	WV	Rivesville	7,8
WV	Harrison	3	WV	Willow Island	2

**Compensating Units**

<b>Table 1 Units</b>			<b>Compensating Units</b>		
<u>State</u>	<u>Plant Name</u>	<u>Units</u>	<u>State</u>	<u>Plant Name</u>	<u>Units</u>
OH	Edgewater	13	MA	Brayton Point	2

**APPENDIX B-2: List of Phase I Extension Units and 1998 Deductions for Exceeding 1997 Projected Emissions Limitations**

<b>State</b>	<b>Plant Name</b>	<b>Unit ID</b>	<b>Ph I Ext Type</b>	<b>1998 Allowance Deduction</b>
AL	Colbert	5	TRANSFER	0
FL	Crist	7	TRANSFER	0
GA	Jack Mcdonough	MB1	TRANSFER	0
GA	Wansley	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	5609
IN	Michigan City	12	TRANSFER	3236
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	250
IN	Wabash River	2	TRANSFER	0
IN	Wabash River	5	TRANSFER	0
IN	Wabash River	6	TRANSFER	0
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	630
KY	Hmp&L Station 2	H2	CONTROL	942
KY	Paradise	3	TRANSFER	0
MD	C P Crane	1	TRANSFER	0
MD	Chalk Point	1	TRANSFER	0
MD	Morgantown	1	TRANSFER	1863
MD	Morgantown	2	TRANSFER	0
NJ	B L England	1	TRANSFER	0
NJ	B L England	2	CONTROL	0
OH	Cardinal	1	TRANSFER	10670
OH	Conesville	1	TRANSFER	2871
OH	Conesville	3	TRANSFER	4424
OH	Eastlake	5	TRANSFER	0
OH	Gen J M Gavin	1	CONTROL	5379
OH	Gen J M Gavin	2	CONTROL	4902
OH	Muskingum River	1	TRANSFER	14921
OH	Muskingum River	2	TRANSFER	3096
OH	Muskingum River	3	TRANSFER	12198
OH	Muskingum River	4	TRANSFER	14559
OH	Niles	1	TRANSFER	0
OH	Niles	2	TRANSFER	0
OH	Picway	9	TRANSFER	7218
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 Ferry	1	TRANSFER	0
PA	Hatfield's Ferry	2	TRANSFER	0
PA	Hatfield's Ferry	3	TRANSFER	0
PA	Portland	1	TRANSFER	0
PA	Portland	2	TRANSFER	0
PA	Sunbury	3	TRANSFER	0
PA	Sunbury	4	TRANSFER	0
TN	Cumberland	1	CONTROL	0
TN	Cumberland	2	CONTROL	0



**APPENDIX B-2: List of Phase I Extension Units and 1998 Deductions for Exceeding 1997 Projected Emissions Limitations**

<b>State</b>	<b>Plant Name</b>	<b>Unit ID</b>	<b>Ph I Ext Type</b>	<b>1998 Allowance Deduction</b>
TN	Gallatin	1	TRANSFER	0
TN	Gallatin	2	TRANSFER	0
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 1 UNITS, 1996 AND 1997**

State	Plant Name	Stack/Unit ID	Unit Type (a)	1996		1997		Percent Change, 1996-1997	
				SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)
AL	Colbert	CSC014 (1, 2, 3, 4)		31,939		27,220		-14.78%	
AL	Colbert	1	Table1		12,952,183		10,745,711		-17.04%
AL	Colbert	2	Table1		12,618,216		12,048,491		-4.52%
AL	Colbert	3	Table1		10,114,184		9,359,699		-7.46%
AL	Colbert	4	Table1		13,855,269		11,770,490		-15.05%
AL	Colbert	5	Table1	58,218	34,058,704	50,803	27,875,666	-12.74%	-18.15%
AL	E C Gaston	CS0CAN (1, 2)		22,028		24,949		13.26%	
AL	E C Gaston	1	Table1		15,064,260		14,950,877		-0.75%
AL	E C Gaston	2	Table1		16,306,916		16,144,807		-0.99%
AL	E C Gaston	CS0CBN (3, 4)		19,812		26,165		32.07%	
AL	E C Gaston	3	Table1		14,032,114		17,580,910		25.29%
AL	E C Gaston	4	Table1		14,192,836		16,180,310		14.00%
AL	E C Gaston	5	Table1	33,819	48,089,378	36,094	46,377,835	6.73%	-3.56%
AL	Gadsden	1	Substitution	4,893	3,518,404	4,716	3,257,292	-3.62%	-7.42%
AL	Gadsden	2	Substitution	5,168	3,649,976	4,876	3,258,590	-5.65%	-10.72%
FL	Big Bend	CS001 (BB01, BB02)		76,818		82,191		6.99%	
FL	Big Bend	BB01	Table1		31,111,381		25,060,591		-19.45%
FL	Big Bend	BB02	Table1		31,794,469		30,800,835		-3.13%
FL	Big Bend	XS23 (BB03, BB04)		19,081		20,303		6.40%	
FL	Big Bend	BB03	Table1		28,490,272		26,885,523		-5.63%
FL	Big Bend	BB04	Substitution		35,141,092		37,274,636		6.07%
FL	Crist	4	Substitution	2,513	3,215,872	2,563	3,014,961	1.99%	-6.25%
FL	Crist	5	Substitution	2,566	3,291,052	4,354	5,324,877	69.68%	61.80%
FL	Crist	6	Table1	13,304	16,798,233	10,243	12,828,682	-23.01%	-23.63%
FL	Crist	7	Table1	14,853	17,764,345	19,563	23,238,171	31.71%	30.81%
FL	Scholz	1	Substitution	2,735	1,099,257	1,280	840,579	-53.20%	-23.53%
FL	Scholz	2	Substitution	3,186	1,316,280	2,112	1,337,456	-33.71%	1.61%
GA	Arkwright	CS001 (1, 2, 3, 4)		4,386		3,431		-21.77%	
GA	Arkwright	1	Substitution		815,186		595,763		-26.92%
GA	Arkwright	2	Substitution		754,577		884,920		17.27%
GA	Arkwright	3	Substitution		920,206		919,471		-0.08%
GA	Arkwright	4	Substitution		850,114		701,745		-17.45%
GA	Bowen	1BLR	Table1	34,032	44,244,090	37,241	49,977,072	9.43%	12.96%
GA	Bowen	2BLR	Table1	36,655	47,089,666	33,675	45,321,466	-8.13%	-3.75%
GA	Bowen	3BLR	Table1	46,269	61,120,578	40,828	54,811,544	-11.76%	-10.32%
GA	Bowen	4BLR	Table1	40,205	52,430,313	42,319	57,170,903	5.26%	9.04%
GA	Hammond	CS001 (1, 2, 3)		7,246		8,609		18.81%	
GA	Hammond	1	Table1		3,515,633		3,940,166		12.08%
GA	Hammond	2	Table1		2,751,274		3,355,443		21.96%
GA	Hammond	3	Table1		3,572,759		4,809,927		34.63%
GA	Hammond	4	Table1	14,364	19,191,000	16,571	23,714,698	15.36%	23.57%
GA	Harlee Branch	CS001 (1, 2)		26,616		29,845		12.13%	
GA	Harlee Branch	1	Substitution		14,360,313		13,643,892		-4.99%
GA	Harlee Branch	2	Substitution		14,456,249		13,727,469		-5.04%
GA	Harlee Branch	CS002 (3, 4)		39,409		53,136		34.83%	
GA	Harlee Branch	3	Substitution		19,090,017		25,801,742		35.16%

**APPENDIX B-3: EMISSIONS AND UTILIZATION OF PHASE 1 UNITS, 1996 AND 1997**

State	Plant Name	Stack/Unit ID	Unit Type (a)	1996		1997		Percent Change, 1996-1997	
				SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)
GA	Harlee Branch	4	Substitution		25,267,007		25,840,817		2.27%
GA	Jack McDonough	CS001 (MB1, MB2)		18,544		28,284		52.52%	
GA	Jack McDonough	MB1	Table1		14,011,717		17,391,180		24.12%
GA	Jack McDonough	MB2	Table1		13,696,390		18,039,198		31.71%
GA	Kraft	CS001 (1, 2, 3, 4)		4,658		7,267		56.01%	
GA	Kraft	1	Substitution		1,626,008		1,485,281		-8.65%
GA	Kraft	2	Substitution		1,220,370		1,775,138		45.46%
GA	Kraft	3	Substitution		2,376,381		4,273,319		79.82%
GA	Mcintosh	1	Substitution	5,713	6,698,411	6,175	7,719,743	8.09%	15.25%
GA	Mitchell	3	Substitution	4,129	3,956,533	3,892	4,404,128	-5.74%	11.31%
GA	Wansley	1	Table1	33,612	40,844,610	34,105	45,956,580	1.47%	12.52%
GA	Wansley	2	Table1	37,059	44,775,798	32,258	45,215,913	-12.96%	0.98%
GA	Yates	Y1BR	Table1	103	2,858,072	130	2,562,462	26.21%	-10.34%
GA	Yates	CS001 (Y2BR, Y3BR)		4,869		6,412		31.69%	
GA	Yates	Y2BR	Table1		3,418,865		3,568,288		4.37%
GA	Yates	Y3BR	Table1		3,189,297		3,782,679		18.61%
GA	Yates	CS002 (Y4BR, Y5BR)		5,211		8,923		71.23%	
GA	Yates	Y4BR	Table1		3,775,583		5,505,970		45.83%
GA	Yates	Y5BR	Table1		3,086,657		4,525,391		46.61%
GA	Yates	Y6BR	Table1	7,139	11,140,080	9,393	12,553,519	31.57%	12.69%
GA	Yates	Y7BR	Table1	6,786	10,667,714	9,702	12,915,696	42.97%	21.07%
IA	Burlington	1	Table1	6,309	9,611,935	6,352	10,287,375	0.68%	7.03%
IA	Des Moines	11	Table1	0	0	0	0	0.00%	0.00%
IA	George Neal North	1	Table1	3,782	9,453,477	4,040	9,719,336	6.82%	2.81%
IA	Milton L Kapp	2	Table1	5,989	11,236,532	4,839	10,867,684	-19.20%	-3.28%
IA	Prairie Creek	4	Table1	2,744	8,290,105	2,985	8,488,312	8.78%	2.39%
IA	Riverside	9	Table1	2,285	5,487,073	2,545	6,955,832	11.38%	26.77%
IL	Baldwin	1	Table1	92,492	35,993,704	88,439	34,346,752	-4.38%	-4.58%
IL	Baldwin	2	Table1	75,793	29,324,128	92,284	35,355,084	21.76%	20.57%
IL	Baldwin	3	Table1	105,553	40,432,952	95,312	37,180,092	-9.70%	-8.05%
IL	Coffeen	CS0001 (1, 2)		43,755		47,756		9.14%	
IL	Coffeen	1	Table1		16,654,324		13,363,732		-19.76%
IL	Coffeen	2	Table1		31,814,222		31,126,083		-2.16%
IL	Collins	CS1230 (1, 2, 3)		1,237		734		-40.66%	
IL	Collins	1	Substitution		6,755,310		11,265,975		66.77%
IL	Collins	2	Substitution		6,510,067		9,640,762		48.09%
IL	Collins	3	Substitution		9,007,079		12,954,183		43.82%
IL	Grand Tower	7	Substitution	3,271	1,402,802	3,606	1,414,896	10.24%	0.86%
IL	Grand Tower	8	Substitution	2,686	1,190,947	3,733	1,511,250	38.98%	26.89%

**APPENDIX B-3: EMISSIONS AND UTILIZATION OF PHASE 1 UNITS, 1996 AND 1997**

State	Plant Name	Stack/Unit ID	Unit Type (a)	1996		1997		Percent Change, 1996-1997	
				SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)
IL	Grand Tower	9	Table1	13,596	5,945,488	18,586	7,209,130	36.70%	21.25%
IL	Havana	XS18 (1, 2, 3, 4, 5, 6, 7, 8)		0		0		0.00%	
IL	Havana	1	Substitution		0		0		0.00%
IL	Havana	2	Substitution		0		0		0.00%
IL	Havana	3	Substitution		0		0		0.00%
IL	Havana	4	Substitution		0		0		0.00%
IL	Havana	5	Substitution		0		0		0.00%
IL	Havana	6	Substitution		0		0		0.00%
IL	Havana	7	Substitution		0		0		0.00%
IL	Havana	8	Substitution		0		0		0.00%
IL	Hennepin	2	Table1	39,842	15,675,990	38,878	14,943,169	-2.42%	-4.67%
IL	Hutsonville	5	Substitution	10,772	4,959,359	8,640	3,962,435	-19.79%	-20.10%
IL	Hutsonville	6	Substitution	8,529	3,814,018	10,982	4,920,046	28.76%	29.00%
IL	Joppa Steam	CS1 (1, 2)		8,572		7,731		-9.81%	
IL	Joppa Steam	1	Table1		14,960,182		15,784,056		5.51%
IL	Joppa Steam	2	Table1		15,969,238		13,883,968		-13.06%
IL	Joppa Steam	CS2 (3, 4)		8,071		7,998		-0.90%	
IL	Joppa Steam	3	Table1		15,215,573		14,698,413		-3.40%
IL	Joppa Steam	4	Table1		13,102,754		15,562,767		18.77%
IL	Joppa Steam	CS3 (5, 6)		8,644		8,472		-1.99%	
IL	Joppa Steam	5	Table1		15,574,434		16,251,487		4.35%
IL	Joppa Steam	6	Table1		14,937,071		15,991,784		7.06%
IL	Kincaid	CS0102 (1, 2)		20,051		41,096		104.96%	
IL	Kincaid	1	Table1		20,133,483		18,383,480		-8.69%
IL	Kincaid	2	Table1		21,671,782		22,185,732		2.37%
IL	Meredosia	CS0001 (1, 2, 3, 4)		6,672		11,912		78.54%	
IL	Meredosia	1	Substitution		1,044,625		1,374,433		31.57%
IL	Meredosia	2	Substitution		708,893		1,491,596		110.41%
IL	Meredosia	3	Substitution		664,115		1,085,073		63.39%
IL	Meredosia	4	Substitution		903,356		1,254,116		38.83%
IL	Meredosia	5	Table1	15,943	11,667,552	15,950	10,034,553	0.04%	-14.00%
IL	Meredosia	6	Substitution	112	373,709	268	861,578	139.29%	130.55%
IL	Newton	1	Substitution	11,148	27,174,200	16,698	8,356,418	49.78%	-69.25%
IL	Newton	2	Substitution	15,404	32,173,480	13,619	30,265,558	-11.59%	-5.93%
IL	Vermilion	CS3 (1, 2)		579		6,208		972.19%	
IL	Vermilion	1	Substitution		358,330		1,488,706		315.46%
IL	Vermilion	2	Table1		743,988		2,826,121		279.86%
IL	Wood River	1	Substitution	0	0	0	513,068	0.00%	n/a
IN	Bailly	XS12 (7, 8)		3,835		4,736		23.49%	
IN	Bailly	7	Table1		12,840,429		12,242,636		-4.66%
IN	Bailly	8	Table1		18,413,238		19,485,943		5.83%
IN	Breed	1	Table1	0	0	0	0	0.00%	0.00%

**APPENDIX B-3: EMISSIONS AND UTILIZATION OF PHASE 1 UNITS, 1996 AND 1997**

State	Plant Name	Stack/Unit ID	Unit Type (a)	1996		1997		Percent Change, 1996-1997	
				SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)
IN	Cayuga	1	Table1	38,676	31,117,238	56,992	36,475,622	47.36%	17.22%
IN	Cayuga	2	Table1	32,134	24,405,552	51,796	33,321,734	61.19%	36.53%
IN	Clifty Creek	CS001 (1, 2, 3)		50,661		44,612		-11.94%	
IN	Clifty Creek	1	Table1		16,465,964		15,465,093		-6.08%
IN	Clifty Creek	2	Table1		15,821,604		13,905,955		-12.11%
IN	Clifty Creek	3	Table1		16,401,939		15,588,922		-4.96%
IN	Clifty Creek	CS002 (4, 5, 6)		53,668		48,844		-8.99%	
IN	Clifty Creek	4	Table1		16,332,747		15,077,344		-7.69%
IN	Clifty Creek	5	Table1		18,078,609		14,905,050		-17.55%
IN	Clifty Creek	6	Table1		16,547,688		14,827,092		-10.40%
IN	Elmer W Stout	50	Table1	6,045	5,588,803	7,444	6,831,371	23.14%	22.23%
IN	Elmer W Stout	60	Table1	5,466	4,806,792	6,561	5,794,145	20.03%	20.54%
IN	Elmer W Stout	70	Table1	26,764	24,589,328	22,717	20,926,892	-15.12%	-14.89%
IN	F B Culley	XS23 (2, 3)		4,800		5,152		7.33%	
IN	F B Culley	2	Table1		5,328,808		6,571,635		23.32%
IN	F B Culley	3	Table1		20,119,291		19,032,117		-5.40%
IN	Frank E Ratts	1SG1	Table1	5,284	4,590,729	8,566	7,431,668	62.11%	61.88%
IN	Frank E Ratts	2SG1	Table1	8,066	7,114,275	7,989	6,728,905	-0.95%	-5.42%
IN	Gibson	CS0003 (1, 2)		91,546		79,183		-13.50%	
IN	Gibson	1	Table1		37,712,577		34,509,324		-8.49%
IN	Gibson	2	Table1		41,393,737		36,456,884		-11.93%
IN	Gibson	XS34 (3, 4)		44,266		49,170		11.08%	
IN	Gibson	3	Table1		30,798,399		35,455,094		15.12%
IN	Gibson	4	Table1		37,063,085		47,452,516		28.03%
IN	H T Pritchard	CS596 (5, 6)		7,068		8,909		26.05%	
IN	H T Pritchard	5	Substitution		1,463,618		2,270,877		55.16%
IN	H T Pritchard	6	Table1		5,275,111		6,791,206		28.74%
IN	Michigan City	12	Table1	14,841	30,794,272	15,262	25,071,593	2.84%	-18.58%
IN	Petersburg	1	Table1	10,473	17,644,936	2,893	17,617,335	-72.38%	-0.16%
IN	Petersburg	2	Table1	16,002	32,737,948	4,162	32,198,117	-73.99%	-1.65%
IN	R Gallagher	CS0001 (1, 2)		21,609		25,662		18.76%	
IN	R Gallagher	1	Table1		6,645,958		7,671,999		15.44%
IN	R Gallagher	2	Table1		8,185,232		8,015,384		-2.08%
IN	R Gallagher	CS0002 (3, 4)		28,826		21,183		-26.51%	
IN	R Gallagher	3	Table1		11,064,458		6,067,619		-45.16%
IN	R Gallagher	4	Table1		9,937,363		5,817,989		-41.45%
IN	Tanners Creek	U4	Table1	59,876	30,441,214	61,344	31,794,760	2.45%	4.45%
IN	Wabash River	1	Table1	4,197	5,111,474	1,051	7,893,969	-74.96%	54.44%
IN	Wabash River	CS0005 (2, 3, 5, 6)		38,986		37,577		-3.61%	
IN	Wabash River	2	Table1		4,532,020		4,391,103		-3.11%
IN	Wabash River	3	Table1		4,199,125		3,873,572		-7.75%
IN	Wabash River	5	Table1		3,972,597		4,755,001		19.70%
IN	Wabash River	6	Table1		17,273,741		17,074,386		-1.15%

**APPENDIX B-3: EMISSIONS AND UTILIZATION OF PHASE 1 UNITS, 1996 AND 1997**

State	Plant Name	Stack/Unit ID	Unit Type (a)	1996		1997		Percent Change, 1996-1997	
				SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)
IN	Warrick	XS123 (1, 2, 3)		37,290		79,037		111.95%	
IN	Warrick	1	Opt-In		6,195,697		11,713,016		89.05%
IN	Warrick	2	Opt-In		4,496,464		12,777,383		184.17%
IN	Warrick	3	Opt-In		6,377,241		12,080,812		89.44%
IN	Warrick	4	Table1	55,629	26,106,280	39,864	22,244,140	-28.34%	-14.79%
KS	La Cygne	1	Substitution	6,372	44,868,034	6,927	43,169,137	8.71%	-3.79%
KS	Quindaro	2	Table1	1,715	1,535,354	4,052	7,372,206	136.27%	380.16%
KY	Coleman	C1	Table1	17,749	10,119,011	15,985	10,496,532	-9.94%	3.73%
KY	Coleman	C2	Table1	19,919	11,620,382	18,600	12,638,043	-6.62%	8.76%
KY	Coleman	C3	Table1	19,488	11,302,035	16,037	11,091,506	-17.71%	-1.86%
KY	Cooper	CS1 (1, 2)		16,652		15,818		-5.01%	
KY	Cooper	1	Table1		6,203,553		6,128,337		-1.21%
KY	Cooper	2	Table1		11,866,456		11,663,764		-1.71%
KY	E W Brown	1	Table1	5,500	5,585,611	5,869	5,534,775	6.71%	-0.91%
KY	E W Brown	CS003 (2, 3)		33,012		30,538		-7.49%	
KY	E W Brown	2	Table1		9,847,964		10,048,618		2.04%
KY	E W Brown	3	Table1		25,069,168		20,628,855		-17.71%
KY	East Bend	2	Substitution	11,023	43,733,535	13,083	50,645,676	18.69%	15.81%
KY	Elmer Smith	XS12 (1, 2)		6,280		7,688		22.42%	
KY	Elmer Smith	1	Table1		8,264,788		11,998,464		45.18%
KY	Elmer Smith	2	Table1		19,624,228		20,955,232		6.78%
KY	Ghent	1	Table1	7,484	38,126,562	7,399	38,733,307	-1.14%	1.59%
KY	Green River	5	Table1	10,192	4,951,922	12,409	5,782,136	21.75%	16.77%
KY	H L Spurlock	1	Table1	13,334	19,356,664	15,669	23,080,348	17.51%	19.24%
KY	Hmp&L Station 2	H1	Table1	2,315	12,528,434	2,142	11,602,514	-7.47%	-7.39%
KY	Hmp&L Station 2	H2	Table1	3,578	13,374,978	2,482	12,675,842	-30.63%	-5.23%
KY	Paradise	3	Table1	146,291	60,987,316	173,285	72,721,248	18.45%	19.24%
KY	R D Green	G1	Substitution	1,085	18,663,054	1,004	15,541,123	-7.47%	-16.73%
KY	R D Green	G2	Substitution	2,314	16,982,755	1,323	18,062,324	-42.83%	6.36%
KY	Shawnee	10	Table1	2,399	9,307,313	2,204	8,930,212	-8.13%	-4.05%
MA	Brayton Point	2	Compensating	9,479	17,544,316	10,646	18,916,857	12.31%	7.82%
MA	Mount Tom	1	Substitution	7,314	9,908,995	9,742	11,867,279	33.20%	19.76%
MD	C P Crane	1	Table1	15,581	12,760,058	12,740	9,725,873	-18.23%	-23.78%
MD	C P Crane	2	Table1	13,163	10,904,815	17,050	13,359,231	29.53%	22.51%
MD	Chalk Point	CSE12 (1, 2)		37,211		39,789		6.93%	
MD	Chalk Point	1	Table1		19,675,719		17,952,950		-8.76%

**APPENDIX B-3: EMISSIONS AND UTILIZATION OF PHASE 1 UNITS, 1996 AND 1997**

State	Plant Name	Stack/Unit ID	Unit Type (a)	1996		1997		Percent Change, 1996-1997	
				SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)
MD	Chalk Point	2	Table1		16,341,786		21,531,764		31.76%
MD	Chalk Point	3	Substitution	2,678	4,153,249	2,716	7,631,900	1.42%	83.76%
MD	Chalk Point	4	Substitution	1,354	6,556,094	1,155	5,790,004	-14.70%	-11.69%
MD	Morgantown	1	Table1	37,236	37,010,782	39,650	38,101,385	6.48%	2.95%
MD	Morgantown	2	Table1	35,542	35,650,179	33,341	31,834,220	-6.19%	-10.70%
MD	R P Smith	9	Substitution	78	107,596	71	92,709	-8.97%	-13.84%
MD	R P Smith	11	Substitution	2,069	2,833,072	2,264	2,986,412	9.42%	5.41%
MI	B C Cobb	4	Substitution	6,336	11,310,884	3,979	6,805,495	-37.20%	-39.83%
MI	Dan E Karn	1	Substitution	9,765	16,478,448	8,807	14,730,605	-9.81%	-10.61%
MI	Dan E Karn	2	Substitution	9,506	15,850,441	9,694	16,458,054	1.98%	3.83%
MI	J C Weadock	CS0009 (7, 8)		10,792		10,679		-1.05%	
MI	J C Weadock	7	Substitution		8,551,701		6,903,489		-19.27%
MI	J C Weadock	8	Substitution		9,538,250		12,153,154		27.41%
MI	J H Campbell	CS0009 (1, 2)		22,771		21,219		-6.82%	
MI	J H Campbell	1	Table1		15,942,587		15,183,312		-4.76%
MI	J H Campbell	2	Table1		20,946,592		19,817,269		-5.39%
MI	J H Campbell	3	Substitution	22,141	47,025,128	23,853	49,783,254	7.73%	5.87%
MI	J R Whiting	2	Substitution	4,433	7,084,353	3,558	5,626,938	-19.74%	-20.57%
MI	J R Whiting	3	Substitution	4,236	6,515,893	4,801	7,534,265	13.34%	15.63%
MN	High Bridge	CS0001 (3, 4, 5, 6)		3,768		3,848		2.12%	
MN	High Bridge	3	Substitution		1,397,090		1,150,622		-17.64%
MN	High Bridge	4	Substitution		1,915,234		1,616,997		-15.57%
MN	High Bridge	5	Substitution		5,087,413		3,694,447		-27.38%
MN	High Bridge	6	Table1		9,292,112		10,898,522		17.29%
MN	Sherburne County	CS1 (1, 2)		10,156		9,132		-10.08%	
MN	Sherburne County	1	Substitution		51,389,952		50,979,544		-0.80%
MN	Sherburne County	2	Substitution		51,477,248		44,659,663		-13.24%
MO	Asbury	1	Table1	6,339	11,502,268	9,236	14,205,505	45.70%	23.50%
MO	Hawthorn	5	Substitution	8,352	26,458,409	9,297	25,785,864	11.31%	-2.54%
MO	James River	3	Substitution	2,358	2,206,094	1,164	2,276,282	-50.64%	3.18%
MO	James River	4	Substitution	4,874	3,885,157	1,780	3,692,173	-63.48%	-4.97%
MO	James River	5	Table1	8,513	7,562,737	3,633	6,726,246	-57.32%	-11.06%
MO	Labadie	1	Table1	11,681	37,988,343	12,452	30,729,514	6.60%	-19.11%
MO	Labadie	2	Table1	6,899	20,875,392	15,063	35,276,040	118.34%	68.98%
MO	Labadie	3	Table1	51,536	42,373,060	12,635	36,859,037	-75.48%	-13.01%
MO	Labadie	4	Table1	36,790	31,934,417	13,777	38,871,905	-62.55%	21.72%
MO	Meramec	1	Substitution	3,344	3,684,584	3,147	4,756,769	-5.89%	29.10%
MO	Meramec	2	Substitution	3,522	4,040,199	3,388	5,293,610	-3.80%	31.02%
MO	Meramec	3	Substitution	5,682	6,226,032	3,364	4,832,568	-40.80%	-22.38%
MO	Meramec	4	Substitution	4,678	5,282,678	7,040	10,263,395	50.49%	94.28%

**APPENDIX B-3: EMISSIONS AND UTILIZATION OF PHASE 1 UNITS, 1996 AND 1997**

State	Plant Name	Stack/Unit ID	Unit Type (a)	1996		1997		Percent Change, 1996-1997	
				SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)
MO	Montrose	1	Table1	2,877	11,154,264	2,705	10,856,432	-5.98%	-2.67%
MO	Montrose	CS023 (2, 3)		5,431		6,684		23.07%	
MO	Montrose	2	Table1		10,700,341		11,916,991		11.37%
MO	Montrose	3	Table1		9,451,260		12,520,698		32.48%
MO	New Madrid	1	Table1	8,855	37,130,588	8,924	37,657,244	0.78%	1.42%
MO	New Madrid	2	Table1	8,007	38,456,072	10,474	48,200,332	30.81%	25.34%
MO	Rush Island	1	Substitution	13,225	37,060,698	13,484	39,221,199	1.96%	5.83%
MO	Rush Island	2	Substitution	14,044	39,943,130	11,659	33,936,175	-16.98%	-15.04%
MO	Sibley	CS0001 (1, 2, 3)		17,893		19,839		10.88%	
MO	Sibley	1	Substitution		3,323,704		3,298,131		-0.77%
MO	Sibley	2	Substitution		3,278,399		3,238,192		-1.23%
MO	Sibley	3	Table1		25,052,823		23,606,317		-5.77%
MO	Sioux	1	Table1	22,358	16,705,724	30,140	26,885,257	34.81%	60.93%
MO	Sioux	2	Table1	34,038	26,575,398	24,968	23,482,964	-26.65%	-11.64%
MO	Southwest	1	Substitution	3,066	11,742,780	3,785	14,063,350	23.45%	19.76%
MO	Thomas Hill	MB1	Table1	2,934	13,624,236	3,382	14,948,531	15.27%	9.72%
MO	Thomas Hill	MB2	Table1	4,685	22,154,212	4,978	22,396,264	6.25%	1.09%
MO	Thomas Hill	MB3	Substitution	9,798	45,296,444	11,224	48,569,132	14.55%	7.23%
MS	Jack Watson	4	Table1	19,627	14,560,545	11,749	13,197,197	-40.14%	-9.36%
MS	Jack Watson	5	Table1	43,588	32,937,887	30,551	33,634,910	-29.91%	2.12%
MS	R D Morrow	1	Substitution	4,847	15,620,857	5,072	14,735,176	4.64%	-5.67%
MS	R D Morrow	2	Substitution	3,749	12,152,295	4,255	13,281,477	13.50%	9.29%
NH	Merrimack	1	Table1	10,606	7,621,232	13,509	10,134,559	27.37%	32.98%
NH	Merrimack	2	Table1	24,037	19,712,188	26,144	24,340,602	8.77%	23.48%
NJ	B L England	1	Table1	18,568	9,042,302	15,485	7,573,153	-16.60%	-16.25%
NJ	B L England	2	Table1	1,752	11,703,690	1,787	9,896,490	2.00%	-15.44%
NY	Dunkirk	2	Substitution	10,711	7,118,127	8,265	5,266,461	-22.84%	-26.01%
NY	Dunkirk	CS0003 (3, 4)		31,867		34,072		6.92%	
NY	Dunkirk	3	Table1		10,792,925		10,571,064		-2.06%
NY	Dunkirk	4	Table1		10,116,478		11,521,991		13.89%
NY	Greenidge	6	Table1	7,144	5,512,986	8,126	7,315,437	13.75%	32.69%
NY	Milliken	XS12 (1, 2)		4,471		5,620		25.70%	
NY	Milliken	1	Table1		10,957,583		10,772,403		-1.69%
NY	Milliken	2	Table1		11,668,817		11,167,395		-4.30%
NY	Northport	1	Table1	6,060	11,054,751	4,868	8,862,375	-19.67%	-19.83%
NY	Northport	2	Table1	3,484	17,346,236	2,661	20,781,446	-23.62%	19.80%
NY	Northport	3	Table1	4,649	8,524,632	4,279	7,753,803	-7.96%	-9.04%
NY	Northport	4	Substitution	1,384	16,800,166	822	20,283,682	-40.61%	20.74%
NY	Oswego	4	Substitution	0	0	0	0	0.00%	0.00%
NY	Oswego	5	Substitution	0	0	0	0	0.00%	0.00%



**APPENDIX B-3: EMISSIONS AND UTILIZATION OF PHASE 1 UNITS, 1996 AND 1997**

State	Plant Name	Stack/Unit ID	Unit Type (a)	1996		1997		Percent Change, 1996-1997	
				SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)
NY	Oswego	6	Substitution	772	3,242,998	1,080	5,955,023	39.90%	83.63%
NY	Port Jefferson	3	Table1	2,835	5,475,689	1,890	10,691,389	-33.33%	95.25%
NY	Port Jefferson	4	Table1	4,499	8,003,758	1,602	7,149,114	-64.39%	-10.68%
NY	Roseton	1	Substitution	2,903	6,148,402	4,380	9,526,581	50.88%	54.94%
NY	Roseton	2	Substitution	4,021	7,670,038	7,132	16,206,427	77.37%	111.30%
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	41,910	12,131,030	39,662	12,618,530	-5.36%	4.02%
OH	Ashtabula	CS1 (8, 9, 10, 11)		25,409		6,942		-72.68%	
OH	Ashtabula	8	Substitution		1,841,817		0		-100.00%
OH	Ashtabula	9	Substitution		1,608,432		0		-100.00%
OH	Ashtabula	10	Substitution		2,174,929		191,965		-91.17%
OH	Ashtabula	11	Substitution		2,343,541		2,020,623		-13.78%
OH	Avon Lake	9	Substitution	1,231	1,685,434	483	597,938	-60.76%	-64.52%
OH	Avon Lake	10	Substitution	3,668	5,121,816	4,274	4,816,566	16.52%	-5.96%
OH	Avon Lake	11	Table1	0	0	0	0	0.00%	0.00%
OH	Avon Lake	12	Table1	27,863	34,561,596	28,037	32,607,684	0.62%	-5.65%
OH	Bay Shore	CS5 (1, 2, 3, 4)		25,025		13,874		-44.56%	
OH	Bay Shore	1	Substitution		7,693,884		6,545,978		-14.92%
OH	Bay Shore	2	Substitution		6,622,437		7,024,540		6.07%
OH	Bay Shore	3	Substitution		7,582,696		7,316,921		-3.51%
OH	Bay Shore	4	Substitution		10,498,676		10,813,196		3.00%
OH	Cardinal	1	Table1	76,138	29,017,768	84,875	30,461,782	11.48%	4.98%
OH	Cardinal	2	Table1	28,212	26,408,584	58,818	36,443,680	108.49%	38.00%
OH	Conesville	CS012 (1, 2)		25,264		31,975		26.56%	
OH	Conesville	1	Table1		5,267,264		7,169,706		36.12%
OH	Conesville	2	Table1		5,867,919		7,275,241		23.98%
OH	Conesville	3	Table1	12,794	5,872,821	16,424	7,352,729	28.37%	25.20%
OH	Conesville	4	Table1	58,778	27,390,004	83,428	37,503,728	41.94%	36.92%
OH	Eastlake	1	Table1	13,095	6,729,324	16,379	7,958,930	25.08%	18.27%
OH	Eastlake	2	Table1	13,779	7,530,250	15,487	7,503,532	12.40%	-0.35%
OH	Eastlake	3	Table1	10,599	5,833,256	16,084	8,015,486	51.75%	37.41%
OH	Eastlake	4	Table1	22,538	11,184,656	26,322	13,078,361	16.79%	16.93%
OH	Eastlake	5	Table1	60,719	31,917,980	53,952	27,418,308	-11.14%	-14.10%
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	4	169,446	3	190,520	-25.00%	12.44%
OH	Gen J M Gavin	1	Table1	28,370	85,368,952	16,854	86,726,768	-40.59%	1.59%
OH	Gen J M Gavin	2	Table1	40,672	100,099,832	16,812	74,801,544	-58.66%	-25.27%

**APPENDIX B-3: EMISSIONS AND UTILIZATION OF PHASE 1 UNITS, 1996 AND 1997**

State	Plant Name	Stack/Unit ID	Unit Type (a)	1996		1997		Percent Change, 1996-1997	
				SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)
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	22,910	32,856,554	23,885	33,042,560	4.26%	0.57%
OH	J M Stuart	2	Substitution	28,054	39,776,416	28,883	40,245,244	2.96%	1.18%
OH	J M Stuart	3	Substitution	25,957	36,913,980	25,127	35,157,140	-3.20%	-4.76%
OH	J M Stuart	4	Substitution	22,226	31,602,492	26,949	37,297,652	21.25%	18.02%
OH	Kyger Creek	CS001 (1, 2, 3, 4, 5)		123,599		111,419		-9.85%	
OH	Kyger Creek	1	Table1		15,541,682		14,525,068		-6.54%
OH	Kyger Creek	2	Table1		15,701,555		15,156,232		-3.47%
OH	Kyger Creek	3	Table1		15,148,702		15,150,482		0.01%
OH	Kyger Creek	4	Table1		14,375,389		14,638,612		1.83%
OH	Kyger Creek	5	Table1		16,381,780		14,960,636		-8.68%
OH	Lake Shore	18	Substitution	1,433	2,396,829	497	1,692,121	-65.32%	-29.40%
OH	Lake Shore	91	Substitution	0	0	0	0	0.00%	0.00%
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	6	Table1		12,392,706		7,661,698		-38.18%
OH	Miami Fort	7	Table1	38,985	38,049,581	38,666	36,213,342	-0.82%	-4.83%
OH	Miami Fort	CS056 (5-1, 5-2, 6)		14,421		10,087		-30.05%	
OH	Miami Fort	5-1	Table1		516,801		876,111		69.53%
OH	Miami Fort	5-2	Table1		516,801		876,111		69.53%
OH	Muskingum River	CS014 (1, 2, 3, 4)		160,368		161,924		0.97%	
OH	Muskingum River	1	Table1		9,743,860		12,198,445		25.19%
OH	Muskingum River	2	Table1		10,890,512		9,313,687		-14.48%
OH	Muskingum River	3	Table1		11,872,478		11,202,854		-5.64%
OH	Muskingum River	4	Table1		11,380,074		11,861,307		4.23%
OH	Muskingum River	5	Table1	20,223	36,993,688	21,872	37,710,912	8.15%	1.94%
OH	Niles	XS12 (1, 2)		22,485		13,340		-40.67%	
OH	Niles	1	Table1		7,986,488		7,712,996		-3.42%
OH	Niles	2	Table1		5,619,661		3,337,159		-40.62%
OH	Picway	9	Table1	15,071	5,014,683	16,843	5,797,157	11.76%	15.60%
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)		62,557		46,842		-25.12%	
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		342,333		754,982		120.54%
OH	R E Burger	6	Table1		345,590		648,775		87.73%
OH	R E Burger	7	Table1		12,358,365		10,903,432		-11.77%
OH	R E Burger	8	Table1		10,058,514		10,116,964		0.58%

**APPENDIX B-3: EMISSIONS AND UTILIZATION OF PHASE 1 UNITS, 1996 AND 1997**

State	Plant Name	Stack/Unit ID	Unit Type (a)	1996		1997		Percent Change, 1996-1997	
				SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)
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	12,247	17,229,437	16,619	20,677,232	35.70%	20.01%
OH	W H Sammis	6	Table1	30,444	40,507,621	33,154	38,089,788	8.90%	-5.97%
OH	W H Sammis	7	Table1	27,966	39,173,092	30,208	34,854,765	8.02%	-11.02%
OH	Walter C Beckjord	5	Table1	22,761	15,965,398	14,542	12,225,260	-36.11%	-23.43%
OH	Walter C Beckjord	6	Table1	40,041	27,366,092	33,099	27,984,274	-17.34%	2.26%
PA	Armstrong	1	Table1	16,496	11,760,419	16,282	10,871,651	-1.30%	-7.56%
PA	Armstrong	2	Table1	15,654	10,843,803	16,847	11,549,498	7.62%	6.51%
PA	Bruce Mansfield	1	Substitution	5,831	39,049,744	6,555	50,690,148	12.42%	29.81%
PA	Bruce Mansfield	2	Substitution	8,159	51,758,064	7,123	43,678,116	-12.70%	-15.61%
PA	Brunner Island	CS102 (1, 2)		47,771		44,391		-7.08%	
PA	Brunner Island	1	Table1		19,038,246		16,560,069		-13.02%
PA	Brunner Island	2	Table1		21,075,806		21,563,393		2.31%
PA	Brunner Island	3	Table1	44,832	39,299,942	52,349	45,583,894	16.77%	15.99%
PA	Cheswick	1	Table1	39,980	32,374,384	47,510	37,412,616	18.83%	15.56%
PA	Conemaugh	1	Table1	3,376	56,341,839	3,754	66,299,762	11.20%	17.67%
PA	Conemaugh	2	Table1	3,732	60,156,610	3,502	61,034,531	-6.16%	1.46%
PA	Hatfield's Ferry	XS123 (1, 2, 3)		153,413		138,630		-9.64%	
PA	Hatfield's Ferry	1	Table1		32,091,132		24,642,421		-23.21%
PA	Hatfield's Ferry	2	Table1		33,885,414		29,327,176		-13.45%
PA	Hatfield's Ferry	3	Table1		27,107,067		35,212,528		29.90%
PA	Martins Creek	CS102 (1, 2)		24,601		23,661		-3.82%	
PA	Martins Creek	1	Table1		10,422,634		9,668,016		-7.24%
PA	Martins Creek	2	Table1		7,831,516		9,896,340		26.37%
PA	Martins Creek	3	Substitution	2,442	5,348,032	2,082	6,918,551	-14.74%	29.37%
PA	Martins Creek	4	Substitution	3,016	8,813,199	1,938	5,638,557	-35.74%	-36.02%
PA	Mitchell	33	Substitution	728	9,346,753	1,080	16,667,369	48.35%	78.32%
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	11,963	8,004,960	11,574	7,648,014	-3.25%	-4.46%
PA	Portland	2	Table1	13,820	9,654,232	17,463	11,972,331	26.36%	24.01%
PA	Shawville	1	Table1	10,587	7,071,835	15,230	9,672,852	43.86%	36.78%
PA	Shawville	2	Table1	13,474	8,841,290	15,609	9,861,149	15.85%	11.54%
PA	Shawville	CS1 (3, 4)		29,884		33,064		10.64%	
PA	Shawville	3	Table1		12,231,908		10,382,892		-15.12%
PA	Shawville	4	Table1		9,337,793		12,363,361		32.40%
PA	Sunbury	3	Table1	9,511	7,316,803	11,343	8,209,041	19.26%	12.19%
PA	Sunbury	4	Table1	10,939	8,495,968	11,326	8,102,198	3.54%	-4.63%

**APPENDIX B-3: EMISSIONS AND UTILIZATION OF PHASE 1 UNITS, 1996 AND 1997**

State	Plant Name	Stack/Unit ID	Unit Type (a)	1996		1997		Percent Change, 1996-1997	
				SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)
TN	Allen	1	Table1	5,434	13,232,597	6,754	14,847,074	24.29%	12.20%
TN	Allen	2	Table1	6,503	15,751,898	7,134	16,492,487	9.70%	4.70%
TN	Allen	3	Table1	8,395	13,330,030	7,436	17,656,804	-11.42%	32.46%
TN	Cumberland	1	Table1	9,524	88,223,696	9,846	111,236,832	3.38%	26.08%
TN	Cumberland	2	Table1	13,252	121,294,176	11,122	118,698,432	-16.07%	-2.14%
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)		55,363		50,974		-7.93%	
TN	Gallatin	1	Table1		14,169,010		14,146,293		-0.16%
TN	Gallatin	2	Table1		15,977,846		13,928,512		-12.83%
TN	Gallatin	CSGA34 (3, 4)		61,303		66,129		7.87%	
TN	Gallatin	3	Table1		15,888,894		17,014,207		7.08%
TN	Gallatin	4	Table1		18,810,130		18,173,564		-3.38%
TN	Johnsonville	CSJO10 (1, 2, 3, 4, 5, 6, 7, 8, 9, 10)		126,367		115,938		-8.25%	
TN	Johnsonville	1	Table1		8,771,161		6,385,030		-27.20%
TN	Johnsonville	2	Table1		8,608,948		8,774,006		1.92%
TN	Johnsonville	3	Table1		9,183,864		8,605,129		-6.30%
TN	Johnsonville	4	Table1		8,805,822		8,448,481		-4.06%
TN	Johnsonville	5	Table1		5,801,129		7,847,835		35.28%
TN	Johnsonville	6	Table1		8,424,067		6,274,393		-25.52%
TN	Johnsonville	7	Table1		10,200,693		8,278,704		-18.84%
TN	Johnsonville	8	Table1		10,405,425		9,340,449		-10.23%
TN	Johnsonville	9	Table1		7,736,863		9,054,961		17.04%
TN	Johnsonville	10	Table1		9,778,394		6,274,673		-35.83%
WI	Alma	CS1 (B4, B5)		3,471		5,608		61.57%	
WI	Alma	B4	Substitution		1,924,740		2,637,034		37.01%
WI	Alma	B5	Substitution		2,887,317		3,645,037		26.24%
WI	Edgewater	3	Substitution	1,482	4,283,009	1,620	4,010,042	9.31%	-6.37%
WI	Edgewater	4	Table1	7,378	21,529,980	7,968	19,448,932	8.00%	-9.67%
WI	Genoa	1	Table1	11,420	17,924,364	12,750	23,336,894	11.65%	30.20%
WI	J P Madgett	B1	Substitution	4,145	15,667,498	4,946	21,777,568	19.32%	39.00%
WI	Nelson Dewey	CS1 (1, 2)		3,836		6,092		58.81%	
WI	Nelson Dewey	1	Table1		6,313,485		8,239,503		30.51%
WI	Nelson Dewey	2	Table1		6,231,595		8,457,749		35.72%
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)		1,518		2,141		41.04%	
WI	Pulliam	5	Substitution		2,476,389		3,268,887		32.00%
WI	Pulliam	6	Substitution		3,796,526		5,354,200		41.03%
WI	Pulliam	7	Substitution	1,574	6,789,476	1,540	6,492,200	-2.16%	-4.38%

**APPENDIX B-3: EMISSIONS AND UTILIZATION OF PHASE 1 UNITS, 1996 AND 1997**

State	Plant Name	Stack/Unit ID	Unit Type (a)	1996		1997		Percent Change, 1996-1997	
				SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)	SO2 Emissions	Utilization (mmBtu)
WI	Pulliam	8	Table1	2,445	10,388,203	2,264	9,850,126	-7.40%	-5.18%
WI	Rock River	1	Substitution	1,337	4,420,448	1,560	4,227,957	16.68%	-4.35%
WI	Rock River	2	Substitution	1,389	4,396,844	1,776	4,871,904	27.86%	10.80%
WI	South Oak Creek	CS3 (5, 6)		13,543		15,452		14.10%	
WI	South Oak Creek	5	Table1		14,710,533		15,182,914		3.21%
WI	South Oak Creek	6	Table1		9,735,973		9,504,521		-2.38%
WI	South Oak Creek	CS4 (7, 8)		20,718		25,934		25.18%	
WI	South Oak Creek	7	Table1		18,264,686		22,009,580		20.50%
WI	South Oak Creek	8	Table1		18,247,312		19,063,307		4.47%
WI	Weston	1	Substitution	1,106	3,536,812	1,318	4,399,791	19.17%	24.40%
WI	Weston	2	Substitution	2,021	6,567,751	1,678	5,695,054	-16.97%	-13.29%
WV	Albright	1	Substitution	1,449	1,190,327	1,578	1,269,279	8.90%	6.63%
WV	Albright	2	Substitution	1,962	1,675,656	1,682	1,333,070	-14.27%	-20.44%
WV	Albright	3	Table1	9,246	7,663,974	9,380	7,411,488	1.45%	-3.29%
WV	Fort Martin	1	Table1	33,684	26,435,504	42,733	36,022,017	26.86%	36.26%
WV	Fort Martin	2	Table1	37,468	29,454,119	44,413	37,187,816	18.54%	26.26%
WV	Harrison	XS123 (1, 2, 3)		16,469		6,298		-61.76%	
WV	Harrison	1	Table1		50,422,229		48,646,367		-3.52%
WV	Harrison	2	Table1		49,485,012		48,426,987		-2.14%
WV	Harrison	3	Table1		46,729,368		45,939,810		-1.69%
WV	Kammer	CS013 (1, 2, 3)		119,369		126,273		5.78%	
WV	Kammer	1	Table1		15,233,808		13,727,107		-9.89%
WV	Kammer	2	Table1		12,862,993		15,078,749		17.23%
WV	Kammer	3	Table1		14,005,666		17,379,095		24.09%
WV	Mitchell	CS012 (1, 2)		53,152		57,239		7.69%	
WV	Mitchell	1	Table1		47,955,776		40,025,964		-16.54%
WV	Mitchell	2	Table1		34,334,844		50,581,435		47.32%
WV	Mt Storm	CS0 (1, 2)		107,211		92,716		-13.52%	
WV	Mt Storm	1	Table1		40,588,560		35,476,403		-12.60%
WV	Mt Storm	2	Table1		43,397,872		36,446,948		-16.02%
WV	Mt Storm	3	Table1	5,096	28,675,658	4,052	45,013,972	-20.49%	56.98%
WV	Rivesville	7	Substitution	233	287,932	235	299,093	0.86%	3.88%
WV	Rivesville	8	Substitution	1,037	1,232,614	1,234	1,531,972	19.00%	24.29%
WV	Willow Island	1	Substitution	1,872	1,841,991	1,790	1,713,256	-4.38%	-6.99%
WV	Willow Island	2	Substitution	6,739	7,224,854	8,067	8,554,928	19.71%	18.41%

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

APPENDIX B-4: EMISSIONS AND ALLOWANCE HOLDINGS OF PHASE 1 UNITS

State	Plant Name	Stack/Unit ID	Unit Type (a)	SO2 Emissions 1996 (b)	SO2 Emissions 1997(b)	1997 Allowances Allocated (c)	Held in Unit Accounts as of 1/30/98	Allowances Deducted for Emissions (d)	Deducted Under Special Phase I Provisions	Allowances Carried Over to 1998
AL	Colbert	CSCO14 (1, 2, 3, 4)		31,939	27,220					
AL	Colbert	1	Table1			13,213	14,781	6,417		8,364
AL	Colbert	2	Table1			14,907	20,654	7,515		13,139
AL	Colbert	3	Table1			14,995	19,207	5,927		13,280
AL	Colbert	4	Table1			15,005	20,849	7,361		13,488
AL	Colbert	5	Table1	58,218	50,803	36,202	55,883	50,803		5,080
AL	E C Gaston	CS0CAN (1, 2)		22,028	24,949					
AL	E C Gaston	1	Table1			17,624	20,277	11,996		8,281
AL	E C Gaston	2	Table1			18,052	21,191	12,953		8,238
AL	E C Gaston	CS0CBN (3, 4)		19,812	26,165					
AL	E C Gaston	3	Table1			17,828	19,849	13,625		6,224
AL	E C Gaston	4	Table1			18,773	25,106	12,540		12,566
AL	E C Gaston	5	Table1	33,819	36,094	58,265	39,407	36,094		3,313
AL	Gadsden	1	Substitution	4,893	4,716	5,158	6,303	4,716		1,587
AL	Gadsden	2	Substitution	5,168	4,876	5,374	6,911	4,876		2,035
FL	Big Bend	CS001 (BB01, BB02)		76,818	82,191					
FL	Big Bend	BB01	Table1			27,662	38,367	36,986		1,381
FL	Big Bend	BB02	Table1			26,387	47,216	45,205		2,011
FL	Big Bend	XS23 (BB03, BB04)		19,081	20,303					
FL	Big Bend	BB03	Table1			26,036	40,281	14,212		26,069
FL	Big Bend	BB04	Substitution			6,400	10,488	6,091		4,397
FL	Crist	4	Substitution	2,513	2,563	9,953	23,497	2,563		20,934
FL	Crist	5	Substitution	2,566	4,354	9,374	22,485	4,354		18,131
FL	Crist	6	Table1	13,304	10,243	18,695	29,645	10,243		19,402
FL	Crist	7	Table1	14,853	19,563	30,846	33,239	19,563		13,676
FL	Scholz	1	Substitution	2,735	1,280	8,282	20,024	1,280		18,744
FL	Scholz	2	Substitution	3,186	2,112	8,572	19,969	2,112		17,857
GA	Arkwright	CS001 (1, 2, 3, 4)		4,386	3,431					
GA	Arkwright	1	Substitution			2,437	2,437	858		1,579
GA	Arkwright	2	Substitution			2,240	2,240	858		1,382
GA	Arkwright	3	Substitution			3,944	3,944	858		3,086
GA	Arkwright	4	Substitution			3,159	3,159	857		2,302
GA	Bowen	1BLR	Table1	34,032	37,241	54,838	40,784	37,241		3,543
GA	Bowen	2BLR	Table1	36,655	33,675	53,329	65,469	33,675		31,794
GA	Bowen	3BLR	Table1	46,269	40,828	69,862	87,459	40,828		46,631
GA	Bowen	4BLR	Table1	40,205	42,319	69,852	89,372	42,319		47,053
GA	Hammond	CS001 (1, 2, 3)		7,246	8,609					
GA	Hammond	1	Table1			8,549	8,549	2,870		5,679
GA	Hammond	2	Table1			8,977	8,977	2,870		6,107
GA	Hammond	3	Table1			8,676	8,676	2,869		5,807
GA	Hammond	4	Table1	14,364	16,571	36,650	60,946	16,571		44,375
GA	Harlee Branch	CS001 (1, 2)		26,616	29,845					
GA	Harlee Branch	1	Substitution			19,221	30,640	14,923		15,717
GA	Harlee Branch	2	Substitution			22,735	41,182	14,922		26,260
GA	Harlee Branch	CS002 (3, 4)		39,409	53,136					
GA	Harlee Branch	3	Substitution			31,280	47,122	26,568		20,554
GA	Harlee Branch	4	Substitution			31,042	46,406	26,568		19,838
GA	Jack Mcdonough	CS001 (MB1, MB2)		18,544	28,284					
GA	Jack Mcdonough	MB1	Table1			19,386	38,772	14,142		24,630
GA	Jack Mcdonough	MB2	Table1			20,058	40,116	14,142		25,974
GA	Kraft	CS001 (1, 2, 3, 4)		4,658	7,267					
GA	Kraft	1	Substitution			2,265	4,293	1,433		2,860
GA	Kraft	2	Substitution			2,137	4,369	1,712		2,657
GA	Kraft	3	Substitution			4,121	7,305	4,122		3,183

APPENDIX B-4: EMISSIONS AND ALLOWANCE HOLDINGS OF PHASE 1 UNITS

State	Plant Name	Stack/Unit ID	Unit Type (a)	SO2 Emissions 1996 (b)	SO2 Emissions 1997(b)	1997 Allowances Allocated (c)	Held in Unit Accounts as of 1/30/98	Allowances Deducted for Emissions (d)	Deducted Under Special Phase I Provisions	Allowances Carried Over to 1998
GA	Mcintosh	1	Substitution	5,713	6,175	7,146	10,261	6,175		4,086
GA	Mitchell	3	Substitution	4,129	3,892	10,792	21,584	3,892		17,692
GA	Wansley	1	Table1	33,612	34,105	68,908	86,728	34,105		52,623
GA	Wansley	2	Table1	37,059	32,258	63,708	79,977	32,258		47,719
GA	Yates	Y1BR	Table1	103	130	9,533	14,234	130		14,104
GA	Yates	CS001 (Y2BR, Y3BR)		4,869	6,412					
GA	Yates	Y2BR	Table1			6,855	13,710	3,206		10,504
GA	Yates	Y3BR	Table1			6,767	13,534	3,206		10,328
GA	Yates	CS002 (Y4BR, Y5BR)		5,211	8,923					
GA	Yates	Y4BR	Table1			8,676	17,352	4,462		12,890
GA	Yates	Y5BR	Table1			9,162	18,324	4,461		13,863
GA	Yates	Y6BR	Table1	7,139	9,393	24,108	48,216	9,393		38,823
GA	Yates	Y7BR	Table1	6,786	9,702	20,915	41,830	9,702		32,128
IA	Burlington	1	Table1	6,309	6,352	10,428	15,660	6,352		9,308
IA	Des Moines	11	Table1	0	0	2,259	0	0		0
IA	George Neal North	1	Table1	3,782	4,040	2,571	8,296	4,040		4,256
IA	Milton L Kapp	2	Table1	5,989	4,839	13,437	26,872	4,839	201 (e)	21,832
IA	Prairie Creek	4	Table1	2,744	2,985	7,965	15,578	2,985		12,593
IA	Riverside	9	Table1	2,285	2,545	3,885	7,542	2,545		4,997
IL	Baldwin	1	Table1	92,492	88,439	46,052	92,821	88,439		4,382
IL	Baldwin	2	Table1	75,793	92,284	48,695	95,044	92,284	53 (e)	2,707
IL	Baldwin	3	Table1	105,553	95,312	46,644	97,851	95,312		2,539
IL	Coffeen	CS0001 (1, 2)		43,755	47,756					
IL	Coffeen	1	Table1			12,925	15,509	15,364		145
IL	Coffeen	2	Table1			39,102	35,360	32,392		2,968
IL	Collins	CS1230 (1, 2, 3)		1,237	734					
IL	Collins	1	Substitution			1,217	3,203	245		2,958
IL	Collins	2	Substitution			1,050	2,642	245		2,397
IL	Collins	3	Substitution			1,856	5,080	244		4,836
IL	Grand Tower	7	Substitution	3,271	3,606	1,068	3,690	3,606		84
IL	Grand Tower	8	Substitution	2,686	3,733	1,015	3,892	3,733		159
IL	Grand Tower	9	Table1	13,596	18,586	6,479	18,802	18,586		216
IL	Havana	XS18 (1, 2, 3, 4, 5, 6, 7, 8)		0	0					
IL	Havana	1	Substitution			34	350	0	23 (e)	327
IL	Havana	2	Substitution			43	43	0	30 (e)	13
IL	Havana	3	Substitution			34	34	0	23 (e)	11
IL	Havana	4	Substitution			34	34	0	23 (e)	11
IL	Havana	5	Substitution			34	34	0	23 (e)	11
IL	Havana	6	Substitution			34	34	0	23 (e)	11
IL	Havana	7	Substitution			34	34	0	23 (e)	11
IL	Havana	8	Substitution			34	34	0	23 (e)	11
IL	Hennepin	2	Table1	39,842	38,878	20,182	41,466	38,878		1,624
IL	Hutsonville	5	Substitution	10,772	8,640	9,661	8,721	8,640		81
IL	Hutsonville	6	Substitution	8,529	10,982	9,837	11,062	10,982		80
IL	Joppa Steam	CS1 (1, 2)		8,572	7,731					
IL	Joppa Steam	1	Table1			12,259	28,446	3,865		24,581
IL	Joppa Steam	2	Table1			10,487	23,130	3,866		19,264

APPENDIX B-4: EMISSIONS AND ALLOWANCE HOLDINGS OF PHASE 1 UNITS

State	Plant Name	Stack/Unit ID	Unit Type (a)	SO2 Emissions 1996 (b)	SO2 Emissions 1997(b)	1997 Allowances Allocated (c)	Held in Unit Accounts as of 1/30/98	Allowances Deducted for Emissions (d)	Deducted Under Special Phase I Provisions	Allowances Carried Over to 1998
IL	Joppa Steam	CS2 (3, 4)		8,071	7,998					
IL	Joppa Steam	3	Table1			11,947	27,960	3,999		23,961
IL	Joppa Steam	4	Table1			11,061	25,301	3,999		21,302
IL	Joppa Steam	CS3 (5, 6)		8,644	8,472					
IL	Joppa Steam	5	Table1			11,119	22,952	4,236		18,716
IL	Joppa Steam	6	Table1			10,341	20,618	4,236		16,382
IL	Kincaid	CS0102 (1, 2)		20,051	41,096					
IL	Kincaid	1	Table1			34,564	33,564	20,548		13,016
IL	Kincaid	2	Table1			37,063	37,063	20,548		16,515
IL	Meredosia	CS0001 (1, 2, 3, 4)		6,672	11,912					
IL	Meredosia	1	Substitution			1,245	3,310	3,129		181
IL	Meredosia	2	Substitution			1,355	3,660	3,392		268
IL	Meredosia	3	Substitution			1,173	2,746	2,478		268
IL	Meredosia	4	Substitution			1,078	3,143	2,913		230
IL	Meredosia	5	Table1	15,943	15,950	15,227	16,328	15,950		378
IL	Meredosia	6	Substitution	112	268	44	407	268		139
IL	Newton	1	Substitution	11,148	16,698	14,599	16,928	16,698		230
IL	Newton	2	Substitution	15,404	13,619	6,346	14,495	13,619		876
IL	Vermilion	CS3 (1, 2)		579	6,208					
IL	Vermilion	1	Substitution			12,972	16,086	2,173	1147 (e)	12,766
IL	Vermilion	2	Table1			9,735	19,122	4,035	1258 (e)	13,829
IL	Wood River	1	Substitution	0	0	0	12	0		12
IN	Bailly	XS12 (7, 8)		3,835	4,736					
IN	Bailly	7	Table1			15,981	5,840	1,610		4,230
IN	Bailly	8	Table1			21,592	19,550	3,126		16,424
IN	Breed	1	Table1	0	0	20,280	53,390	0		53,390
IN	Cayuqa	1	Table1	38,676	56,992	36,581	72,517	56,992		15,525
IN	Cayuqa	2	Table1	32,134	51,796	37,415	66,877	51,796		15,081
IN	Clifty Creek	CS001 (1, 2, 3)		50,661	44,612					
IN	Clifty Creek	1	Table1			19,620	22,350	14,871		7,479
IN	Clifty Creek	2	Table1			19,289	19,254	14,871		4,383
IN	Clifty Creek	3	Table1			19,873	19,886	14,870		5,016
IN	Clifty Creek	CS002 (4, 5, 6)		53,668	48,844					
IN	Clifty Creek	4	Table1			19,552	20,761	16,281		4,480
IN	Clifty Creek	5	Table1			18,851	19,418	16,281		3,137
IN	Clifty Creek	6	Table1			19,844	25,512	16,282		9,230
IN	Elmer W Stout	50	Table1	6,045	7,444	4,253	7,703	7,444		259
IN	Elmer W Stout	60	Table1	5,466	6,561	5,229	6,872	6,561		311
IN	Elmer W Stout	70	Table1	26,764	22,717	25,883	23,548	22,717		831
IN	F B Culley	XS23 (2, 3)		4,800	5,152					
IN	F B Culley	2	Table1			4,703	6,760	5,152		1,608
IN	F B Culley	3	Table1			18,603	24,264	0		24,264
IN	Frank E Ratts	1SG1	Table1	5,284	8,566	9,131	13,798	8,566		5,232
IN	Frank E Ratts	2SG1	Table1	8,066	7,989	9,296	10,708	7,989		2,719
IN	Gibson	CS0003 (1, 2)		91,546	79,183					
IN	Gibson	1	Table1			44,288	51,581	38,879		12,702
IN	Gibson	2	Table1			44,956	53,347	40,304		13,043
IN	Gibson	XS34 (3, 4)		44,266	49,170					
IN	Gibson	3	Table1			45,033	54,897	39,798		15,099
IN	Gibson	4	Table1			44,200	48,392	9,372		39,020
IN	H T Pritchard	CS596 (5, 6)		7,068	8,909					



APPENDIX B-4: EMISSIONS AND ALLOWANCE HOLDINGS OF PHASE 1 UNITS

State	Plant Name	Stack/Unit ID	Unit Type (a)	SO2 Emissions 1996 (b)	SO2 Emissions 1997(b)	1997 Allowances Allocated (c)	Held in Unit Accounts as of 1/30/98	Allowances Deducted for Emissions (d)	Deducted Under Special Phase I Provisions	Allowances Carried Over to 1998
IN	H T Pritchard	5	Substitution			1,458	2,347	2,254		93
IN	H T Pritchard	6	Table1			6,325	6,889	6,655		234
IN	Michigan City	12	Table1	14,841	15,262	25,553	76,494	15,262		61,232
IN	Petersburg	1	Table1	10,473	2,893	18,011	3,134	2,893		241
IN	Petersburg	2	Table1	16,002	4,162	35,496	4,382	4,162		220
IN	R Gallagher	CS0001 (1, 2)		21,609	25,662					
IN	R Gallagher	1	Table1			7,115	16,595	12,543		4,052
IN	R Gallagher	2	Table1			7,980	16,509	13,119		3,390
IN	R Gallagher	CS0002 (3, 4)		28,826	21,183					
IN	R Gallagher	3	Table1			7,159	13,659	10,842		2,817
IN	R Gallagher	4	Table1			8,386	13,136	10,341		2,795
IN	Tanners Creek	U4	Table1	59,876	61,344	27,209	142,970	61,344		81,626
IN	Wabash River	1	Table1	4,197	1,051	5,502	3,801	1,051		2,750
IN	Wabash River	CS0005 (2, 3, 5, 6)		38,986	37,577					
IN	Wabash River	2	Table1			3,135	6,116	5,439		677
IN	Wabash River	3	Table1			4,111	6,445	4,847		1,598
IN	Wabash River	5	Table1			4,023	7,800	5,995		1,805
IN	Wabash River	6	Table1			13,462	24,302	21,296		3,006
IN	Warrick	XS123 (1, 2, 3)		37,290	79,037					
IN	Warrick	1	Opt-In			30,372	27,472	25,917		1,555
IN	Warrick	2	Opt-In			30,732	31,793	27,571	1309 (e)	2,913
IN	Warrick	3	Opt-In			27,668	25,861	25,549		312
IN	Warrick	4	Table1	55,629	39,864	29,577	40,358	39,864		494
KS	La Cygne	1	Substitution	6,372	6,927	23,489	7,208	6,927		281
KS	Quindaro	2	Table1	1,715	4,052	4,109	6,637	4,052		2,585
KY	Coleman	C1	Table1	17,749	15,985	10,954	16,398	15,985		413
KY	Coleman	C2	Table1	19,919	18,600	12,502	19,084	18,600		484
KY	Coleman	C3	Table1	19,488	16,037	12,015	16,456	16,037		419
KY	Cooper	CS1 (1, 2)		16,652	15,818					
KY	Cooper	1	Table1			7,254	10,199	5,220		4,979
KY	Cooper	2	Table1			14,917	21,273	10,598		10,675
KY	E W Brown	1	Table1	5,500	5,869	6,923	21,757	5,869		15,888
KY	E W Brown	CS003 (2, 3)		33,012	30,538					
KY	E W Brown	2	Table1			10,623	33,787	9,975		23,812
KY	E W Brown	3	Table1			25,413	81,493	20,563		60,930
KY	East Bend	2	Substitution	11,023	13,083	17,447	18,735	13,083		5,652
KY	Elmer Smith	XS12 (1, 2)		6,280	7,688					
KY	Elmer Smith	1	Table1			6,348	2,400	2,306		94
KY	Elmer Smith	2	Table1			14,031	5,600	5,382		218
KY	Ghent	1	Table1	7,484	7,399	33,701	85,270	7,399		77,871
KY	Green River	5	Table1	10,192	12,409	7,614	26,598	12,409		14,189
KY	H L Spurlock	1	Table1	13,334	15,669	22,181	39,852	15,669		24,183
KY	Hmp&L Station 2	H1	Table1	2,315	2,142	17,887	9,441	2,142		7,299
KY	Hmp&L Station 2	H2	Table1	3,578	2,482	17,053	7,957	2,482		5,475
KY	Paradise	3	Table1	146,291	173,285	57,613	277,612	173,285		104,327
KY	R D Green	G1	Substitution	1,085	1,004	5,041	9,658	1,004		8,654
KY	R D Green	G2	Substitution	2,314	1,323	5,827	11,170	1,323		9,847

APPENDIX B-4: EMISSIONS AND ALLOWANCE HOLDINGS OF PHASE 1 UNITS

State	Plant Name	Stack/Unit ID	Unit Type (a)	SO2 Emissions 1996 (b)	SO2 Emissions 1997(b)	1997 Allowances Allocated (c)	Held in Unit Accounts as of 1/30/98	Allowances Deducted for Emissions (d)	Deducted Under Special Phase I Provisions	Allowances Carried Over to 1998
KY	Shawnee	10	Table1	2,399	2,204	9,902	10,354	2,204		8,150
MA	Brayton Point	2	Compensating	9,479	10,646	15,838	24,783	10,646		14,137
MA	Mount Tom	1	Substitution	7,314	9,742	10,708	13,955	9,742		4,213
MD	C P Crane	1	Table1	15,581	12,740	10,058	54,893	12,740		42,153
MD	C P Crane	2	Table1	13,163	17,050	8,987	19,952	17,050	221 (f)	2,681
MD	Chalk Point	CSE12 (1, 2)		37,211	39,789					
MD	Chalk Point	1	Table1			21,333	21,486	18,091		3,395
MD	Chalk Point	2	Table1			23,690	26,261	21,698		4,563
MD	Chalk Point	3	Substitution	2,678	2,716	9,000	12,716	2,716		10,000
MD	Chalk Point	4	Substitution	1,354	1,155	1,519	3,675	1,155		2,520
MD	Morgantown	1	Table1	37,236	39,650	34,332	47,580	39,650		7,930
MD	Morgantown	2	Table1	35,542	33,341	37,467	40,009	33,341		6,668
MD	R P Smith	9	Substitution	78	71	386	74	71		3
MD	R P Smith	11	Substitution	2,069	2,264	3,128	2,378	2,264		114
MI	B C Cobb	4	Substitution	6,336	3,979	5,325	5,482	3,979		1,503
MI	Dan E Karn	1	Substitution	9,765	8,807	10,151	9,778	8,807		971
MI	Dan E Karn	2	Substitution	9,506	9,694	10,984	10,662	9,694		968
MI	J C Weadock	CS0009 (7, 8)		10,792	10,679					
MI	J C Weadock	7	Substitution			5,473	4,256	3,868		388
MI	J C Weadock	8	Substitution			5,451	7,491	6,811		680
MI	J H Campbell	CS0009 (1, 2)		22,771	21,219					
MI	J H Campbell	1	Table1			18,773	10,138	9,205		933
MI	J H Campbell	2	Table1			22,453	13,231	12,014		1,217
MI	J H Campbell	3	Substitution	22,141	23,853	25,847	27,743	23,853		3,890
MI	J R Whiting	2	Substitution	4,433	3,558	4,304	4,562	3,558		1,004
MI	J R Whiting	3	Substitution	4,236	4,801	5,498	5,911	4,801		1,110
MN	High Bridge	CS0001 (3, 4, 5, 6)		3,768	3,848					
MN	High Bridge	3	Substitution			299	3,303	253		3,050
MN	High Bridge	4	Substitution			242	2,060	356		1,704
MN	High Bridge	5	Substitution			410	3,310	829		2,481
MN	High Bridge	6	Table1			4,158	9,040	2,410		6,630
MN	Sherburne County	CS1 (1, 2)		10,156	9,132					
MN	Sherburne County	1	Substitution			4,681	15,837	4,869		10,968
MN	Sherburne County	2	Substitution			4,727	15,778	4,263		11,515
MO	Asbury	1	Table1	6,339	9,236	15,764	31,176	9,236		21,940
MO	Hawthorn	5	Substitution	8,352	9,297	6,927	9,427	9,297		130
MO	James River	3	Substitution	2,358	1,164	2,536	5,038	1,164		3,874
MO	James River	4	Substitution	4,874	1,780	4,304	5,120	1,780		3,340
MO	James River	5	Table1	8,513	3,633	4,722	4,599	3,633		966
MO	Labadie	1	Table1	11,681	12,452	39,055	40,163	12,452		27,711
MO	Labadie	2	Table1	6,899	15,063	36,718	44,300	15,063		29,237
MO	Labadie	3	Table1	51,536	12,635	39,249	44,436	12,635		31,801
MO	Labadie	4	Table1	36,790	13,777	34,994	38,669	13,777		24,892
MO	Meramec	1	Substitution	3,344	3,147	1,816	4,202	3,147		1,055
MO	Meramec	2	Substitution	3,522	3,388	1,948	4,313	3,388		925
MO	Meramec	3	Substitution	5,682	3,364	4,166	4,714	3,364		1,350
MO	Meramec	4	Substitution	4,678	7,040	4,507	8,982	7,040		1,942

APPENDIX B-4: EMISSIONS AND ALLOWANCE HOLDINGS OF PHASE 1 UNITS

State	Plant Name	Stack/Unit ID	Unit Type (a)	SO2 Emissions 1996 (b)	SO2 Emissions 1997(b)	1997 Allowances Allocated (c)	Held in Unit Accounts as of 1/30/98	Allowances Deducted for Emissions (d)	Deducted Under Special Phase I Provisions	Allowances Carried Over to 1998
MO	Montrose	1	Table1	2,877	2,705	7,196	2,840	2,705		135
MO	Montrose	CS023 (2, 3)		5,431	6,684					
MO	Montrose	2	Table1			7,984	3,370	3,262		108
MO	Montrose	3	Table1			9,824	3,560	3,422		138
MO	New Madrid	1	Table1	8,855	8,924	27,497	27,497	8,924		18,573
MO	New Madrid	2	Table1	8,007	10,474	31,625	28,625	10,474		18,151
MO	Rush Island	1	Substitution	13,225	13,484	26,935	46,168	13,484		32,684
MO	Rush Island	2	Substitution	14,044	11,659	30,146	54,185	11,659		42,526
MO	Sibley	CS0001 (1, 2, 3)		17,893	19,839					
MO	Sibley	1	Substitution			2,782	5,120	2,381		2,739
MO	Sibley	2	Substitution			3,332	6,749	2,381		4,368
MO	Sibley	3	Table1			15,170	22,034	15,077		6,957
MO	Sioux	1	Table1	22,358	30,140	21,976	36,270	30,140		6,130
MO	Sioux	2	Table1	34,038	24,968	23,067	30,484	24,968		5,516
MO	Southwest	1	Substitution	3,066	3,785	3,906	4,540	3,785		755
MO	Thomas Hill	MB1	Table1	2,934	3,382	9,980	4,480	3,382		1,098
MO	Thomas Hill	MB2	Table1	4,685	4,978	18,880	14,380	4,978		9,402
MO	Thomas Hill	MB3	Substitution	9,798	11,224	14,011	14,011	11,224		2,787
MS	Jack Watson	4	Table1	19,627	11,749	17,439	19,887	11,749		8,138
MS	Jack Watson	5	Table1	43,588	30,551	35,734	39,161	30,551		8,610
MS	R D Morrow	1	Substitution	4,847	5,072	4,571	5,794	5,072		722
MS	R D Morrow	2	Substitution	3,749	4,255	5,002	6,864	4,255		2,609
NH	Merrimack	1	Table1	10,606	13,509	9,922	14,544	13,509		1,035
NH	Merrimack	2	Table1	24,037	26,144	21,421	26,770	26,144		626
NJ	B L England	1	Table1	18,568	15,485	8,822	15,822	15,485		337
NJ	B L England	2	Table1	1,752	1,787	14,886	4,412	1,787		2,625
NY	Dunkirk	2	Substitution	10,711	8,265	9,414	9,414	8,265		1,149
NY	Dunkirk	CS0003 (3, 4)		31,867	34,072					
NY	Dunkirk	3	Table1			12,268	33,216	16,355		16,861
NY	Dunkirk	4	Table1			13,690	22,319	17,717		4,602
NY	Greenidge	6	Table1	7,144	8,126	7,342	18,058	8,126		9,932
NY	Milliken	XS12 (1, 2)		4,471	5,620					
NY	Milliken	1	Table1			10,876	18,271	2,891		15,380
NY	Milliken	2	Table1			12,083	17,378	2,729		14,649
NY	Northport	1	Table1	6,060	4,868	19,289	14,832	4,868		9,964
NY	Northport	2	Table1	3,484	2,661	23,476	7,403	2,661		4,742
NY	Northport	3	Table1	4,649	4,279	25,783	15,612	4,279		11,333
NY	Northport	4	Substitution	1,384	822	5,516	10,103	822		9,281
NY	Oswego	4	Substitution	0	0	371	1,121	0		1,121
NY	Oswego	5	Substitution	0	0	12,365	12,365	0		12,365
NY	Oswego	6	Substitution	772	1,080	4,499	7,437	1,080		6,357
NY	Port Jefferson	3	Table1	2,835	1,890	10,194	6,602	1,890		4,712
NY	Port Jefferson	4	Table1	4,499	1,602	12,006	9,607	1,602		8,005
NY	Roseton	1	Substitution	2,903	4,380	19,147	19,147	4,380	1435 (e)	13,332
NY	Roseton	2	Substitution	4,021	7,132	16,872	16,872	7,132	176 (e)	9,564
OH	Acme	13	Substitution	0	0	0	0	0		0

APPENDIX B-4: EMISSIONS AND ALLOWANCE HOLDINGS OF PHASE 1 UNITS

State	Plant Name	Stack/Unit ID	Unit Type (a)	SO2 Emissions 1996 (b)	SO2 Emissions 1997(b)	1997 Allowances Allocated (c)	Held in Unit Accounts as of 1/30/98	Allowances Deducted for Emissions (d)	Deducted Under Special Phase I Provisions	Allowances Carried Over to 1998
OH	Acme	14	Substitution	0	0	12	0	0		0
OH	Acme	15	Substitution	0	0	16	0	0		0
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	41,910	39,662	18,351	42,659	39,662		2,997
OH	Ashtabula	CS1 (8, 9, 10, 11)		25,409	6,942					
OH	Ashtabula	8	Substitution			10,753	0	0		0
OH	Ashtabula	9	Substitution			9,173	0	0		0
OH	Ashtabula	10	Substitution			8,275	5,902	5,345		557
OH	Ashtabula	11	Substitution			8,706	1,790	1,597		193
OH	Avon Lake	9	Substitution	1,231	483	8,763	584	483		101
OH	Avon Lake	10	Substitution	3,668	4,274	7,879	4,622	4,274		348
OH	Avon Lake	11	Table1	0	0	12,771	0	0		0
OH	Avon Lake	12	Table1	27,863	28,037	33,413	31,037	28,037		3,000
OH	Bay Shore	CS5 (1, 2, 3, 4)		25,025	13,874					
OH	Bay Shore	1	Substitution			7,414	3,267	3,052		215
OH	Bay Shore	2	Substitution			6,957	3,066	2,775		291
OH	Bay Shore	3	Substitution			7,585	3,343	3,052		291
OH	Bay Shore	4	Substitution			12,481	5,500	4,995		505
OH	Cardinal	1	Table1	76,138	84,875	37,568	89,119	84,875		4,244
OH	Cardinal	2	Table1	28,212	58,818	42,008	77,183	58,818		18,365
OH	Conesville	CS012 (1, 2)		25,264	31,975					
OH	Conesville	1	Table1			4,615	24,980	15,888		9,092
OH	Conesville	2	Table1			5,360	16,891	16,087		804
OH	Conesville	3	Table1	12,794	16,424	6,029	17,245	16,424		821
OH	Conesville	4	Table1	58,778	83,428	53,463	86,181	83,428		2,753
OH	Eastlake	1	Table1	13,095	16,379	8,551	18,020	16,379		1,641
OH	Eastlake	2	Table1	13,779	15,487	9,471	17,036	15,487		1,549
OH	Eastlake	3	Table1	10,599	16,084	10,984	17,799	16,084		1,715
OH	Eastlake	4	Table1	22,538	26,322	15,906	28,978	26,322		2,656
OH	Eastlake	5	Table1	60,719	53,952	37,349	57,618	53,952		3,666
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	4	3	5,536	200	3		197
OH	Gen J M Gavin	1	Table1	28,370	16,854	113,172	17,639	16,854		785
OH	Gen J M Gavin	2	Table1	40,672	16,812	115,070	31,425	16,812		14,613
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	22,910	23,885	41,189	41,878	23,885		17,993
OH	J M Stuart	2	Substitution	28,054	28,883	39,041	36,006	28,883		7,123
OH	J M Stuart	3	Substitution	25,957	25,127	38,712	35,618	25,127		10,491
OH	J M Stuart	4	Substitution	22,226	26,949	40,925	40,293	26,949		13,344
OH	Kyger Creek	CS001 (1, 2, 3, 4, 5)		123,599	111,419					
OH	Kyger Creek	1	Table1			18,773	22,783	22,284		499
OH	Kyger Creek	2	Table1			18,072	22,783	22,284		499
OH	Kyger Creek	3	Table1			17,439	22,783	22,284		499
OH	Kyger Creek	4	Table1			18,218	22,783	22,284		499
OH	Kyger Creek	5	Table1			18,247	22,783	22,283		500
OH	Lake Shore	18	Substitution	1,433	497	4,508	598	497		101
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

APPENDIX B-4: EMISSIONS AND ALLOWANCE HOLDINGS OF PHASE 1 UNITS

State	Plant Name	Stack/Unit ID	Unit Type (a)	SO2 Emissions 1996 (b)	SO2 Emissions 1997(b)	1997 Allowances Allocated (c)	Held in Unit Accounts as of 1/30/98	Allowances Deducted for Emissions (d)	Deducted Under Special Phase I Provisions	Allowances Carried Over to 1998
OH	Lake Shore	94	Substitution	0	0	102	0	0		0
OH	Miami Fort	6	Table1			12,475	11,815	8,076		3,739
OH	Miami Fort	7	Table1	38,985	38,666	42,216	49,193	38,666		10,527
OH	Miami Fort	CS056 (5-1, 5-2, 6)		14,421	10,087					
OH	Miami Fort	5-1	Table1			417	1,213	1,006		207
OH	Miami Fort	5-2	Table1			417	1,211	1,005		206
OH	Muskingum River	CS014 (1, 2, 3, 4)		160,368	161,924					
OH	Muskingum River	1	Table1			16,312	46,605	44,386		2,219
OH	Muskingum River	2	Table1			15,533	35,307	33,626		1,681
OH	Muskingum River	3	Table1			15,293	43,001	40,953		2,048
OH	Muskingum River	4	Table1			12,914	45,107	42,959		2,148
OH	Muskingum River	5	Table1	20,223	21,872	44,364	98,221	21,872		76,349
OH	Niles	XS12 (1, 2)		22,485	13,340					
OH	Niles	1	Table1			7,608	7,608	5,415		2,193
OH	Niles	2	Table1			9,975	9,975	7,925		2,050
OH	Picway	9	Table1	15,071	16,843	5,404	17,684	16,843		841
OH	Poston	1	Substitution	0	0	0	3,797	0		3,797
OH	Poston	2	Substitution	0	0	0	3,542	0		3,542
OH	Poston	3	Substitution	0	0	0	4,642	0		4,642
OH	R E Burger	CS0001 (1, 2, 3, 4, 5, 6, 7, 8)		62,557	46,842					
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	2,300	1,282		1,018
OH	R E Burger	6	Table1			3,371	2,100	1,040		1,060
OH	R E Burger	7	Table1			11,818	25,818	23,052		2,766
OH	R E Burger	8	Table1			13,626	24,000	21,468		2,532
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	12,247	16,619	26,496	21,500	16,619		4,881
OH	W H Sammis	6	Table1	30,444	33,154	43,773	38,000	33,154		4,846
OH	W H Sammis	7	Table1	27,966	30,208	47,380	76,730	30,208		46,522
OH	Walter C Beckjord	5	Table1	22,761	14,542	9,811	19,394	14,542		4,852
OH	Walter C Beckjord	6	Table1	40,041	33,099	25,235	37,080	33,099		3,981
PA	Armstrong	1	Table1	16,496	16,282	14,031	17,096	16,282		814
PA	Armstrong	2	Table1	15,654	16,847	15,024	17,689	16,847		842
PA	Bruce Mansfield	1	Substitution	5,831	6,555	10,510	17,963	6,555		11,408
PA	Bruce Mansfield	2	Substitution	8,159	7,123	11,537	18,848	7,123		11,581
PA	Brunner Island	CS102 (1, 2)		47,771	44,391					
PA	Brunner Island	1	Table1			27,030	39,615	19,283		20,332
PA	Brunner Island	2	Table1			30,282	46,901	25,108		21,793
PA	Brunner Island	3	Table1	44,832	52,349	52,404	92,661	52,349		40,312
PA	Cheswick	1	Table1	39,980	47,510	38,139	52,542	47,510		5,032
PA	Conemaugh	1	Table1	3,376	3,754	81,450	17,623	3,754		13,869
PA	Conemaugh	2	Table1	3,732	3,502	91,666	17,253	3,502		13,751
PA	Hatfield's Ferry	XS123 (1, 2, 3)		153,413	138,630					
PA	Hatfield's Ferry	1	Table1			36,835	39,840	37,943		1,897
PA	Hatfield's Ferry	2	Table1			36,338	48,042	45,754		2,288

APPENDIX B-4: EMISSIONS AND ALLOWANCE HOLDINGS OF PHASE 1 UNITS

State	Plant Name	Stack/Unit ID	Unit Type (a)	SO2 Emissions 1996 (b)	SO2 Emissions 1997(b)	1997 Allowances Allocated (c)	Held in Unit Accounts as of 1/30/98	Allowances Deducted for Emissions (d)	Deducted Under Special Phase I Provisions	Allowances Carried Over to 1998
PA	Hatfield's Ferry	3	Table1			39,210	57,679	54,933		2,746
PA	Martins Creek	CS102 (1, 2)		24,601	23,661					
PA	Martins Creek	1	Table1			12,327	27,556	11,693		15,863
PA	Martins Creek	2	Table1			12,483	27,288	11,968		15,320
PA	Martins Creek	3	Substitution	2,442	2,082	12,553	22,664	2,082		20,582
PA	Martins Creek	4	Substitution	3,016	1,938	11,548	20,080	1,938		18,142
PA	Mitchell	33	Substitution	728	1,080	1,101	1,134	1,080		54
PA	New Castle	1	Substitution	0	0	1,367	0	0		0
PA	New Castle	2	Substitution	0	0	1,520	0	0		0
PA	Portland	1	Table1	11,963	11,574	5,784	45,304	11,574		33,730
PA	Portland	2	Table1	13,820	17,463	9,961	18,090	17,463		627
PA	Shawville	1	Table1	10,587	15,230	10,048	16,180	15,230		950
PA	Shawville	2	Table1	13,474	15,609	10,048	16,584	15,609		975
PA	Shawville	CS1 (3, 4)		29,884	33,064					
PA	Shawville	3	Table1			13,846	15,978	15,029		949
PA	Shawville	4	Table1			13,700	19,165	18,035		1,130
PA	Sunbury	3	Table1	9,511	11,343	8,530	25,511	11,343		14,168
PA	Sunbury	4	Table1	10,939	11,326	11,149	24,324	11,326		12,998
TN	Allen	1	Table1	5,434	6,754	14,917	17,029	6,754		10,275
TN	Allen	2	Table1	6,503	7,134	16,329	18,410	7,134		11,276
TN	Allen	3	Table1	8,395	7,436	15,258	21,518	7,436		14,082
TN	Cumberland	1	Table1	9,524	9,846	114,325	163,284	9,846		153,438
TN	Cumberland	2	Table1	13,252	11,122	126,157	155,249	11,122		144,127
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)		55,363	50,974					
TN	Gallatin	1	Table1			17,400	28,217	25,663		2,554
TN	Gallatin	2	Table1			16,855	27,854	25,311		2,543
TN	Gallatin	CSGA34 (3, 4)		61,303	66,129					
TN	Gallatin	3	Table1			19,493	35,426	32,201		3,225
TN	Gallatin	4	Table1			20,701	37,316	33,928		3,388
TN	Johnsonville	CSJO10 (1, 2, 3, 4, 5, 6, 7, 8, 9, 10)		126,367	115,938					
TN	Johnsonville	1	Table1			7,585	12,916	9,317		3,599
TN	Johnsonville	2	Table1			7,828	16,724	12,803		3,921
TN	Johnsonville	3	Table1			8,189	16,522	12,597		3,925
TN	Johnsonville	4	Table1			7,780	16,227	12,329		3,898
TN	Johnsonville	5	Table1			8,023	12,637	11,488		1,149
TN	Johnsonville	6	Table1			7,682	10,676	9,158		1,518
TN	Johnsonville	7	Table1			8,744	13,397	12,178		1,219
TN	Johnsonville	8	Table1			8,471	15,010	13,644		1,366
TN	Johnsonville	9	Table1			6,894	14,612	13,284		1,328
TN	Johnsonville	10	Table1			7,351	10,056	9,140		916
WI	Alma	CS1 (B4, B5)		3,471	5,608					
WI	Alma	B4	Substitution			2,207	9,299	2,804		6,495
WI	Alma	B5	Substitution			3,624	16,817	2,804		14,013
WI	Edgewater	3	Substitution	1,482	1,620	4,493	10,831	1,620		9,211
WI	Edgewater	4	Table1	7,378	7,968	24,099	14,583	7,968		6,615
WI	Genoa	1	Table1	11,420	12,750	22,103	25,776	12,750		13,026

APPENDIX B-4: EMISSIONS AND ALLOWANCE HOLDINGS OF PHASE 1 UNITS

State	Plant Name	Stack/Unit ID	Unit Type (a)	SO2 Emissions 1996 (b)	SO2 Emissions 1997(b)	1997 Allowances Allocated (c)	Held in Unit Accounts as of 1/30/98	Allowances Deducted for Emissions (d)	Deducted Under Special Phase I Provisions	Allowances Carried Over to 1998
WI	J P Madgett	B1	Substitution	4,145	4,946	6,407	10,240	4,946		5,294
WI	Nelson Dewey	CS1 (1, 2)		3,836	6,092					
WI	Nelson Dewey	1	Table1			5,852	8,736	2,998		5,738
WI	Nelson Dewey	2	Table1			6,504	10,369	3,094		7,275
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)		1,518	2,141					
WI	Pulliam	5	Substitution			2,097	980	814		166
WI	Pulliam	6	Substitution			2,844	1,590	1,327		263
WI	Pulliam	7	Substitution	1,574	1,540	7,317	1,800	1,540		260
WI	Pulliam	8	Table1	2,445	2,264	7,312	2,700	2,264		436
WI	Rock River	1	Substitution	1,337	1,560	5,398	13,220	1,560		11,660
WI	Rock River	2	Substitution	1,389	1,776	4,034	9,279	1,776		7,503
WI	South Oak Creek	CS3 (5, 6)		13,543	15,452					
WI	South Oak Creek	5	Table1			9,416	10,453	9,503		950
WI	South Oak Creek	6	Table1			11,723	6,544	5,949		595
WI	South Oak Creek	CS4 (7, 8)		20,718	25,934					
WI	South Oak Creek	7	Table1			15,754	15,287	13,897		1,390
WI	South Oak Creek	8	Table1			15,375	13,241	12,037		1,204
WI	Weston	1	Substitution	1,106	1,318	1,579	1,773	1,318		455
WI	Weston	2	Substitution	2,021	1,678	3,580	2,000	1,678		322
WV	Albright	1	Substitution	1,449	1,578	4,831	1,657	1,578		79
WV	Albright	2	Substitution	1,962	1,682	5,024	1,766	1,682		84
WV	Albright	3	Table1	9,246	9,380	11,684	9,849	9,380		469
WV	Fort Martin	1	Table1	33,684	42,733	40,496	44,870	42,733		2,137
WV	Fort Martin	2	Table1	37,468	44,413	40,116	46,634	44,413		2,221
WV	Harrison	XS123 (1, 2, 3)		16,469	6,298					
WV	Harrison	1	Table1			68,078	2,262	2,156		106
WV	Harrison	2	Table1			64,488	2,243	2,136		107
WV	Harrison	3	Table1			57,730	2,106	2,006		100
WV	Kammer	CS013 (1, 2, 3)		119,369	126,273					
WV	Kammer	1	Table1			18,247	39,647	37,758		1,889
WV	Kammer	2	Table1			18,948	43,421	41,353		2,068
WV	Kammer	3	Table1			16,932	49,520	47,162		2,358
WV	Mitchell	CS012 (1, 2)		53,152	57,239					
WV	Mitchell	1	Table1			42,823	75,177	25,390		49,787
WV	Mitchell	2	Table1			44,312	75,957	31,849		44,108
WV	Mt Storm	CS0 (1, 2)		107,211	92,716					
WV	Mt Storm	1	Table1			42,570	65,008	46,358		18,650
WV	Mt Storm	2	Table1			34,644	54,923	46,358		8,565
WV	Mt Storm	3	Table1	5,096	4,052	56,589	115,845	4,052		111,793
WV	Rivesville	7	Substitution	233	235	1,009	247	235		12
WV	Rivesville	8	Substitution	1,037	1,234	3,059	1,296	1,234		62
WV	Willow Island	1	Substitution	1,872	1,790	1,855	3,735	1,790		1,945
WV	Willow Island	2	Substitution	6,739	8,067	7,765	8,470	8,067		403

NOTES:

APPENDIX B-4: EMISSIONS AND ALLOWANCE HOLDINGS OF PHASE 1 UNITS

State	Plant Name	Stack/Unit ID	Unit Type (a)	SO2 Emissions 1996 (b)	SO2 Emissions 1997(b)	1997 Allowances Allocated (c)	Held in Unit Accounts as of 1/30/98	Allowances Deducted for Emissions (d)	Deducted Under Special Phase I Provisions	Allowances Carried Over to 1998
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- (a) Identifies the affected unit as listed in Table 1, or as a substitution, compensating, or opt-in unit.
- (b) Both 1996 and 1997 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 1997 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) Deducted due to underutilization provisions. There is no effective SO2 emissions cap during Phase I for units not affected by the Acid Rain Program until Phase II. Therefore, if underutilization were not taken into account, Phase I units could potentially shift their generation responsibilities to Phase II units without surrendering allowances for the additional emissions resulting at those units. To ensure that allowances are surrendered in this instance, each Phase I unit must explain any underutilization during Phase I (1995-1999). Any Phase I unit that had a lower heat input in 1996 than the average heat input during the 1985-87 baseline years (i.e., was utilized less) must surrender allowances unless it explains this decrease by shifts in generation to sulfur-free generators (e.g., hydroelectric or nuclear generators), energy conservation, improved unit efficiency, overutilization at other Phase I units in the dispatch system, utilization of compensating units, or a decrease in dispatch system sales. If the reasons for the underutilization do not fall into one or more of these categories, then it is presumed that the Phase I unit shifted generation to sulfur-emitting Phase II units and the Phase I unit has to surrender allowances. The amount of allowances surrendered is based on the amount of unexplained underutilization and the emission rates of the Phase II units.
- (f) Deduction due to control-by-contract provisions. A Table I unit is allowed to designate a Phase II unit as a substitution unit only if both units are under the control of the same owner or operator. A Table I unit must show a certain level of ownership interest and/or share a common operator with the substitution unit, or have a contract between the owners and operators of the units that demonstrates a certain level of control of the substitution unit (control-by-contract) by the Table I unit's owners and operators. This contract, among other things, is required to contain a commitment to reduce the emissions rate at the substitution unit designated under this provision by 30 percent or more. If the substitution unit fails to meet this reduction, it is not subject to an enforcement action, but the Phase I unit that designated it must surrender allowances to cover the additional emissions released by the substitution unit.



## **APPENDIX C**

Appendix C-1: List of Averaging Plans and Results in 1997

Appendix C-2: Compliance Results for the 265 NO<sub>x</sub> Affected Units in 1997

Appendix C-3: Compliance Results for the 272 Early Election Units in 1997

**Appendix C-1: List of Averaging Plans and Results in 1997**

<u>Operating Utility</u>	<u>ORIS Code</u>	<u>Plant Name, State and Units</u>	<u>Plan Limit</u>	<u>Plan Rate</u>
Alabama Power Co	26	E C Gaston AL 1-5	0.48	0.44
	7	Gadsden AL 1-2		
CIPSCO	862	Grand Tower IL 07-09	0.46	0.43
	863	Hutsonville IL 05, 06		
	864	Meredosia IL 01-05		
	6017	Newton IL 1, 2		
Dairyland Power Coop	4140	Alma WI B4, B5	0.48	0.45
	4143	Genoa WI 1		
	4271	J P Madgett WI B1		
East Kentucky Power Coop	1384	Cooper KY 1, 2	0.50	0.40
Georgia Power Co	699	Arkwright GA 1-4	0.46	0.44
	703	Bowen GA 1BLR - 4BLR		
	708	Hammond GA 1-4		
	709	Harlee Branch GA 2		
	710	Jack Mcdonough GA MB1, MB2		
	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		
GPU	3113	Portland PA 1, 2	0.45	0.37

**Appendix C-1: List of Averaging Plans and Results in 1997**

<u>Operating Utility</u>	<u>ORIS Code</u>	<u>Plant Name, State and Units</u>	<u>Plan Limit</u>	<u>Plan Rate</u>
Gulf Power Co	641	Crist FL 4-7	0.48	0.42
	2049	Jack Watson MS 4, 5		
	642	Scholz FL1, 2		
	6073	Victor J Daniel Jr MS 1, 2		
Hoosier Energy	1043	Frank E Ratts IN 1SG1, 2SG1	0.50	0.49
IES Utilities, Inc.	1104	Burlington IA 1	0.47	0.29
	1073	Prairie Creek IA 4		
Illinois Power Co	889	Baldwin IL 3	0.45	0.38
	892	Hennepin IL 2		
	897	Vermilion IL 1, 2		
Indianapolis Power & Light	990	Elmer W Stout IN 50, 60, 70	0.45	0.34
	991	H T Pritchard IN 3-6		
	994	Petersburg IN 1-4		
Kentucky Utilities Company	1355	E W Brown KY 1-3	0.46	0.42
	1356	Ghent KY 1		
	1357	Green River KY 5		
Monongahela Power Co	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		

### Appendix C-1: List of Averaging Plans and Results in 1997

<u>Operating Utility</u>	<u>ORIS Code</u>	<u>Plant Name, State and Units</u>	<u>Plan Limit</u>	<u>Plan Rate</u>
NYSEG	2527	Greenidge NY 6	0.45	0.40
	2535	Milliken NY 1, 2		
Northern States Power Co	1912	High Bridge MN 3-6	0.46	0.33
	6090	Sherburne County MN 1, 2		
Ohio Edison Co	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		
PP&L	3140	Brunner Island PA 1-3	0.47	0.41
	3148	Martins Creek PA 1, 2		
	3152	Sunbury PA 3, 4		
PSI Energy, Inc.	1001	Cayuga IN 1, 2	0.48	0.43
	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		
South Mississippi Elec Power	6061	R D Morrow MS 1, 2	0.50	0.45

**Appendix C-1: List of Averaging Plans and Results in 1997**

<u>Operating Utility</u>	<u>ORIS Code</u>	<u>Plant Name, State and Units</u>	<u>Plan Limit</u>	<u>Plan Rate</u>
Springfield City of (MO)	2161	James River MO 3-5	0.50	0.45
	6195	Southwest MO 1		
TVA	47	Colbert AL 1-5	0.47	0.44
	3403	Gallatin TN 1-4		
	3406	Johnsonville TN 1-10		
Union Electric Co	2103	Labadie MO 1-4	0.45	0.24
	2104	Meramec MO 1-4		
	6155	Rush Island MO 1, 2		
Wisconsin Electric Power	4040	Port Washington WI 1-4	0.48	0.36
	4041	South Oak Creek WI 5-8		
	4042	Valley WI 1-4		
Wisconsin Public Service Corp	4072	Pulliam WI 7, 8	0.47	0.36
	4078	Weston WI 1-3		

## Appendix C-2: Compliance Results for the 265 Phase I NO<sub>x</sub> Affected Units in 1997

ST	Plant Name	Operating Utility	ORIS Code	Boiler	Compliance Approach	1997				1990 Emission Rate	Change from 1990 to 1997
						Emission Limit	Actual Emission Rate	AEL or Avg. Plan Limit	Actual Avg. Plan Rate		
AL	Colbert	TVA	47	1	Averaging Plan	0.50	0.46	0.47	0.44	0.80	-43%
AL	Colbert	TVA	47	2	Averaging Plan	0.50	0.46	0.47	0.44	0.67	-31%
AL	Colbert	TVA	47	3	Averaging Plan	0.50	0.46	0.47	0.44	0.83	-45%
AL	Colbert	TVA	47	4	Averaging Plan	0.50	0.46	0.47	0.44	0.86	-47%
AL	Colbert	TVA	47	5	Averaging Plan	0.50	0.40	0.47	0.44	0.78	-49%
AL	E C Gaston	Alabama Power Co	26	1	Averaging Plan	0.50	0.43	0.48	0.44	0.90	-52%
AL	E C Gaston	Alabama Power Co	26	2	Averaging Plan	0.50	0.43	0.48	0.44	0.78	-45%
AL	E C Gaston	Alabama Power Co	26	3	Averaging Plan	0.50	0.42	0.48	0.44	0.80	-48%
AL	E C Gaston	Alabama Power Co	26	4	Averaging Plan	0.50	0.42	0.48	0.44	0.80	-48%
AL	E C Gaston	Alabama Power Co	26	5	Averaging Plan	0.45	0.42	0.48	0.44	0.78	-46%
AL	Gadsden	Alabama Power Co	7	1	Averaging Plan	0.45	0.64	0.48	0.44	0.51	25%
AL	Gadsden	Alabama Power Co	7	2	Averaging Plan	0.45	0.68	0.48	0.44	0.56	21%
FL	Big Bend	Tampa Electric Co	645	BB04	Standard Limitation	0.45	0.41			0.46	-11%
FL	Crist	Gulf Power Co	641	4	Averaging Plan	0.45	0.52	0.48	0.42	0.43	21%
FL	Crist	Gulf Power Co	641	5	Averaging Plan	0.45	0.59	0.48	0.42	0.49	20%
FL	Crist	Gulf Power Co	641	6	Averaging Plan	0.50	0.45	0.48	0.42	1.04	-57%
FL	Crist	Gulf Power Co	641	7	Averaging Plan	0.50	0.44	0.48	0.42	1.16	-62%
FL	Scholz	Gulf Power Co	642	1	Averaging Plan	0.50	0.67	0.48	0.42	0.69	-3%
FL	Scholz	Gulf Power Co	642	2	Averaging Plan	0.50	0.77	0.48	0.42	0.80	-4%
GA	Arkwright	Georgia Power Co	699	1	Averaging Plan	0.45	0.77	0.46	0.44	0.90	-14%
GA	Arkwright	Georgia Power Co	699	2	Averaging Plan	0.45	0.77	0.46	0.44	0.90	-14%
GA	Arkwright	Georgia Power Co	699	3	Averaging Plan	0.50	0.77	0.46	0.44	0.90	-14%
GA	Arkwright	Georgia Power Co	699	4	Averaging Plan	0.50	0.77	0.46	0.44	0.90	-14%
GA	Bowen	Georgia Power Co	703	1BLR	Averaging Plan	0.45	0.43	0.46	0.44	0.67	-36%
GA	Bowen	Georgia Power Co	703	2BLR	Averaging Plan	0.45	0.44	0.46	0.44	0.65	-32%
GA	Bowen	Georgia Power Co	703	3BLR	Averaging Plan	0.45	0.43	0.46	0.44	0.56	-23%
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	0.83	0.46	0.44	0.84	-1%
GA	Hammond	Georgia Power Co	708	2	Averaging Plan	0.50	0.83	0.46	0.44	0.84	-1%
GA	Hammond	Georgia Power Co	708	3	Averaging Plan	0.50	0.83	0.46	0.44	0.84	-1%
GA	Hammond	Georgia Power Co	708	4	Averaging Plan	0.50	0.46	0.46	0.44	1.20	-62%
GA	Harlee Branch	Georgia Power Co	709	2	Averaging Plan	0.50	0.72	0.46	0.44	0.99	-27%

## Appendix C-2: Compliance Results for the 265 Phase I NO<sub>x</sub> Affected Units in 1997

ST	Plant Name	Operating Utility	ORIS Code	Boiler	Compliance Approach	1997				1990 Emission Rate	Change from 1990 to 1997
						Emission Limit	Actual Emission Rate	AEL or Avg. Plan Limit	Actual Avg. Plan Rate		
GA	Jack McDonough	Georgia Power Co	710	MB1	Averaging Plan	0.45	0.42	0.46	0.44	0.66	-36%
GA	Jack McDonough	Georgia Power Co	710	MB2	Averaging Plan	0.45	0.42	0.46	0.44	0.60	-30%
GA	Kraft	Savannah Electric & Power	733	1	Averaging Plan	0.45	0.62	0.46	0.44	0.40	55%
GA	Kraft	Savannah Electric & Power	733	2	Averaging Plan	0.45	0.62	0.46	0.44	0.40	55%
GA	Kraft	Savannah Electric & Power	733	3	Averaging Plan	0.45	0.62	0.46	0.44	0.40	55%
GA	Mcintosh	Savannah Electric & Power	6124	1	Averaging Plan	0.50	0.86	0.46	0.44	0.83	4%
GA	Mitchell	Georgia Power Co	727	3	Averaging Plan	0.45	0.62	0.46	0.44	0.61	2%
GA	Scherer	Georgia Power Co	6257	3	Averaging Plan	0.45	0.30	0.46	0.44	0.20	50%
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	0.45	0.46	0.44	0.56	-20%
GA	Yates	Georgia Power Co	728	Y2BR	Averaging Plan	0.45	0.48	0.46	0.44	0.62	-23%
GA	Yates	Georgia Power Co	728	Y3BR	Averaging Plan	0.45	0.48	0.46	0.44	0.62	-23%
GA	Yates	Georgia Power Co	728	Y4BR	Averaging Plan	0.45	0.39	0.46	0.44	0.56	-30%
GA	Yates	Georgia Power Co	728	Y5BR	Averaging Plan	0.45	0.39	0.46	0.44	0.65	-40%
GA	Yates	Georgia Power Co	728	Y6BR	Averaging Plan	0.45	0.33	0.46	0.44	0.67	-51%
GA	Yates	Georgia Power Co	728	Y7BR	Averaging Plan	0.45	0.31	0.46	0.44	0.61	-49%
IA	Burlington	IES Utilities, Inc.	1104	1	Averaging Plan	0.45	0.29	0.47	0.29	0.63	-54%
IA	Milton L Kapp	Interstate Power Co	1048	2	Standard Limitation	0.45	0.35			0.80	-56%
IA	Prairie Creek	IES Utilities, Inc.	1073	4	Averaging Plan	0.50	0.29	0.47	0.29	1.05	-72%
IA	Riverside	MidAmerican Energy Company	1081	9	Standard Limitation	0.45	0.36			0.82	-56%
IL	Baldwin	Illinois Power Co	889	3	Averaging Plan	0.45	0.33	0.45	0.38	0.67	-51%
IL	Grand Tower	Cipsco	862	7	Averaging Plan	0.50	0.73	0.46	0.43	0.78	-6%
IL	Grand Tower	Cipsco	862	8	Averaging Plan	0.50	0.76	0.46	0.43	0.96	-21%
IL	Grand Tower	Cipsco	862	9	Averaging Plan	0.50	0.61	0.46	0.43	0.64	-5%
IL	Hennepin	Illinois Power Co	892	2	Averaging Plan	0.45	0.49	0.45	0.38	0.59	-17%
IL	Hutsonville	Cipsco	863	5	Averaging Plan	0.45	0.53	0.46	0.43	0.70	-24%
IL	Hutsonville	Cipsco	863	6	Averaging Plan	0.45	0.54	0.46	0.43	0.67	-19%
IL	Joppa Steam	Electric Energy Inc	887	1	Standard Limitation	0.45	0.28			0.56	-50%
IL	Joppa Steam	Electric Energy Inc	887	2	Standard Limitation	0.45	0.28			0.56	-50%
IL	Joppa Steam	Electric Energy Inc	887	3	Standard Limitation	0.45	0.26			0.56	-54%
IL	Joppa Steam	Electric Energy Inc	887	4	Standard Limitation	0.45	0.26			0.56	-54%

## Appendix C-2: Compliance Results for the 265 Phase I NO<sub>x</sub> Affected Units in 1997

ST	Plant Name	Operating Utility	ORIS Code	Boiler	Compliance Approach	1997				1990 Emission Rate	Change from 1990 to 1997
						Emission Limit	Actual Emission Rate	AEL or Avg. Plan Limit	Actual Avg. Plan Rate		
IL	Joppa Steam	Electric Energy Inc	887	5	Standard Limitation	0.45	0.24			0.56	-57%
IL	Joppa Steam	Electric Energy Inc	887	6	Standard Limitation	0.45	0.24			0.56	-57%
IL	Meredosia	Cipsco	864	1	Averaging Plan	0.45	0.50	0.46	0.43	0.50	0%
IL	Meredosia	Cipsco	864	2	Averaging Plan	0.45	0.50	0.46	0.43	0.50	0%
IL	Meredosia	Cipsco	864	3	Averaging Plan	0.45	0.50	0.46	0.43	0.50	0%
IL	Meredosia	Cipsco	864	4	Averaging Plan	0.45	0.50	0.46	0.43	0.50	0%
IL	Meredosia	Cipsco	864	5	Averaging Plan	0.45	0.69	0.46	0.43	0.67	3%
IL	Newton	Cipsco	6017	1	Averaging Plan	0.45	0.29	0.46	0.43	0.47	-38%
IL	Newton	Cipsco	6017	2	Averaging Plan	0.45	0.38	0.46	0.43	0.39	-3%
IL	Vermilion	Illinois Power Co	897	1	Averaging Plan	0.45	0.42	0.45	0.38	0.94	-55%
IL	Vermilion	Illinois Power Co	897	2	Averaging Plan	0.45	0.42			0.74	-43%
IN	Cayuga	PSI Energy, Inc.	1001	1	Averaging Plan	0.45	0.32	0.48	0.43	0.42	-24%
IN	Cayuga	PSI Energy, Inc.	1001	2	Averaging Plan	0.45	0.34	0.48	0.43	0.47	-28%
IN	Elmer W Stout	Indianapolis Power & Light	990	50	Averaging Plan	0.45	0.35	0.45	0.34	0.63	-44%
IN	Elmer W Stout	Indianapolis Power & Light	990	60	Averaging Plan	0.45	0.38	0.45	0.34	0.65	-42%
IN	Elmer W Stout	Indianapolis Power & Light	990	70	Averaging Plan	0.45	0.32	0.45	0.34	0.71	-55%
IN	F B Culley	Southern Indiana Gas & Elec	1012	2	Standard Limitation	0.50	0.47			1.05	-55%
IN	F B Culley	Southern Indiana Gas & Elec	1012	3	Standard Limitation	0.50	0.47			1.23	-62%
IN	Frank E Ratts	Hoosier Energy	1043	1SG1	Averaging Plan	0.50	0.49	0.50	0.49	1.08	-55%
IN	Frank E Ratts	Hoosier Energy	1043	2SG1	Averaging Plan	0.50	0.48	0.50	0.49	1.09	-56%
IN	Gibson	PSI Energy, Inc.	6113	1	Averaging Plan	0.50	0.52	0.48	0.43	1.03	-50%
IN	Gibson	PSI Energy, Inc.	6113	2	Averaging Plan	0.50	0.52	0.48	0.43	1.12	-54%
IN	Gibson	PSI Energy, Inc.	6113	3	Averaging Plan	0.50	0.43	0.48	0.43	0.52	-17%
IN	Gibson	PSI Energy, Inc.	6113	4	Averaging Plan	0.50	0.42	0.48	0.43	0.66	-36%
IN	H T Pritchard	Indianapolis Power & Light	991	3	Averaging Plan	0.45	0.69	0.45	0.34	0.74	-7%
IN	H T Pritchard	Indianapolis Power & Light	991	4	Averaging Plan	0.45	0.69	0.45	0.34	0.74	-7%
IN	H T Pritchard	Indianapolis Power & Light	991	5	Averaging Plan	0.45	0.36	0.45	0.34	0.67	-46%
IN	H T Pritchard	Indianapolis Power & Light	991	6	Averaging Plan	0.45	0.36	0.45	0.34	0.47	-23%
IN	Petersburg	Indianapolis Power & Light	994	1	Averaging Plan	0.45	0.26	0.45	0.34	0.56	-54%
IN	Petersburg	Indianapolis Power & Light	994	2	Averaging Plan	0.45	0.33	0.45	0.34	0.63	-48%
IN	Petersburg	Indianapolis Power & Light	994	3	Averaging Plan	0.45	0.33	0.45	0.34	0.37	-11%
IN	Petersburg	Indianapolis Power & Light	994	4	Averaging Plan	0.45	0.36	0.45	0.34	0.37	-3%



## Appendix C-2: Compliance Results for the 265 Phase I NO<sub>x</sub> Affected Units in 1997

ST	Plant Name	Operating Utility	ORIS Code	Boiler	Compliance Approach	1997				1990 Emission Rate	Change from 1990 to 1997
						Emission Limit	Actual Emission Rate	AEL or Avg. Plan Limit	Actual Avg. Plan Rate		
IN	R Gallagher	PSI Energy, Inc.	1008	1	Averaging Plan	0.50	0.43	0.48	0.43	0.74	-42%
IN	R Gallagher	PSI Energy, Inc.	1008	2	Averaging Plan	0.50	0.43	0.48	0.43	0.95	-55%
IN	R Gallagher	PSI Energy, Inc.	1008	3	Averaging Plan	0.50	0.40	0.48	0.43	0.95	-58%
IN	R Gallagher	PSI Energy, Inc.	1008	4	Averaging Plan	0.50	0.40	0.48	0.43	0.95	-58%
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	0.58	0.48	0.43	0.95	-39%
IN	Wabash River	PSI Energy, Inc.	1010	3	Averaging Plan	0.50	0.59	0.48	0.43	0.92	-36%
IN	Wabash River	PSI Energy, Inc.	1010	5	Averaging Plan	0.50	0.48	0.48	0.43	0.85	-44%
IN	Wabash River	PSI Energy, Inc.	1010	6	Averaging Plan	0.45	0.40	0.48	0.43	0.37	8%
KS	La Cygne	Kansas City Power & Light	1241	2	Standard Limitation	0.50	0.34			0.29	17%
KS	Quindaro	Board of Public Util,ks City	1295	2	Standard Limitation	0.50	0.34			0.64	-47%
KY	Coleman	Big Rivers Electric	1381	C1	Standard Limitation	0.50	0.46			1.41	-67%
KY	Coleman	Big Rivers Electric	1381	C2	Standard Limitation	0.50	0.46			1.29	-64%
KY	Coleman	Big Rivers Electric	1381	C3	Standard Limitation	0.50	0.48			1.14	-58%
KY	Cooper	East Kentucky Power Coop	1384	1	Averaging Plan	0.50	0.40	0.50	0.40	0.90	-56%
KY	Cooper	East Kentucky Power Coop	1384	2	Averaging Plan	0.50	0.40	0.50	0.40	0.90	-56%
KY	E W Brown	Kentucky Utilities Co	1355	1	Averaging Plan	0.50	0.48	0.46	0.42	1.00	-52%
KY	E W Brown	Kentucky Utilities Co	1355	2	Averaging Plan	0.45	0.42	0.46	0.42	0.59	-29%
KY	E W Brown	Kentucky Utilities Co	1355	3	Averaging Plan	0.45	0.42	0.46	0.42	0.57	-26%
KY	East Bend	Cincinnati Gas & Electric Co	6018	2	Averaging Plan	0.50	0.40	0.48	0.43	0.31	29%
KY	Elmer Smith	Owensboro City of	1374	2	Standard Limitation	0.45	0.43			0.86	-50%
KY	Ghent	Kentucky Utilities Co	1356	1	Averaging Plan	0.45	0.41	0.46	0.42	0.56	-27%
KY	Green River	Kentucky Utilities Co	1357	5	Averaging Plan	0.50	0.40	0.46	0.42	0.84	-52%
KY	H L Spurlock	East Kentucky Power Coop	6041	1	Standard Limitation	0.50	0.44			0.90	-51%
KY	HMP&L Station 2	Big Rivers Electric	1382	H1	Standard Limitation	0.50	0.48			1.34	-64%
KY	HMP&L Station 2	Big Rivers Electric	1382	H2	Standard Limitation	0.50	0.46			1.34	-66%
KY	R D Green	Big Rivers Electric	6639	G1	Standard Limitation	0.50	0.38			0.41	-7%
KY	R D Green	Big Rivers Electric	6639	G2	Standard Limitation	0.50	0.46			0.45	2%
MD	Chalk Point	Pepco	1571	1	AEL Demonstration	0.50	0.65	0.86		1.35	-52%
MD	Chalk Point	Pepco	1571	2	AEL Demonstration	0.50	0.65	1.20		1.35	-52%
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	0.64	0.70		0.95	-33%

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MD	R P Smith	Potomac Edison Co	1570	9	Averaging Plan	0.50	0.67	0.49	0.45	0.87	-23%
MD	R P Smith	Potomac Edison Co	1570	11	Averaging Plan	0.45	0.43	0.49	0.45	0.78	-45%
MI	J H Campbell	Consumers Energy Co	1710	1	AEL Demonstration	0.45	0.48	0.55		0.69	-30%
MN	High Bridge	Northern States Power Co	1912	3	Averaging Plan	0.50	0.63	0.46	0.33	0.48	31%
MN	High Bridge	Northern States Power Co	1912	4	Averaging Plan	0.50	0.63	0.46	0.33	0.48	31%
MN	High Bridge	Northern States Power Co	1912	5	Averaging Plan	0.50	0.63	0.46	0.33	0.48	31%
MN	High Bridge	Northern States Power Co	1912	6	Averaging Plan	0.50	0.63	0.46	0.33	0.48	31%
MN	Sherburne County	Northern States Power Co	6090	1	Averaging Plan	0.45	0.27	0.46	0.33	0.45	-40%
MN	Sherburne County	Northern States Power Co	6090	2	Averaging Plan	0.45	0.27	0.46	0.33	0.45	-40%
MO	Hawthorn	Kansas City Power & Light	2079	5	Standard Limitation	0.45	0.37			0.36	3%
MO	Iatan	Kansas City Power & Light	6065	1	Standard Limitation	0.50	0.29			0.31	-6%
MO	James River	Springfield City of (MO)	2161	3	Averaging Plan	0.50	0.55	0.50	0.45	1.02	-46%
MO	James River	Springfield City of (MO)	2161	4	Averaging Plan	0.50	0.62	0.50	0.45	0.87	-29%
MO	James River	Springfield City of (MO)	2161	5	Averaging Plan	0.50	0.58	0.50	0.45	0.93	-38%
MO	Labadie	Union Electric Co	2103	1	Averaging Plan	0.45	0.22	0.45	0.24	0.62	-65%
MO	Labadie	Union Electric Co	2103	2	Averaging Plan	0.45	0.25	0.45	0.24	0.62	-60%
MO	Labadie	Union Electric Co	2103	3	Averaging Plan	0.45	0.22	0.45	0.24	0.62	-65%
MO	Labadie	Union Electric Co	2103	4	Averaging Plan	0.45	0.21	0.45	0.24	0.62	-66%
MO	Meramec	Union Electric Co	2104	1	Averaging Plan	0.45	0.67	0.45	0.24	0.82	-18%
MO	Meramec	Union Electric Co	2104	2	Averaging Plan	0.45	0.53	0.45	0.24	0.63	-16%
MO	Meramec	Union Electric Co	2104	3	Averaging Plan	0.50	0.61	0.45	0.24	0.96	-36%
MO	Meramec	Union Electric Co	2104	4	Averaging Plan	0.50	0.33	0.45	0.24	1.17	-72%
MO	Montrose	Kansas City Power & Light	2080	1	Standard Limitation	0.45	0.32			0.32	0%
MO	Montrose	Kansas City Power & Light	2080	2	Standard Limitation	0.45	0.38			0.34	12%
MO	Montrose	Kansas City Power & Light	2080	3	Standard Limitation	0.45	0.38			0.34	12%
MO	Rush Island	Union Electric Co	6155	1	Averaging Plan	0.45	0.20	0.45	0.24	0.63	-68%
MO	Rush Island	Union Electric Co	6155	2	Averaging Plan	0.45	0.18	0.45	0.24	0.63	-71%
MO	Southwest	Springfield City of (MO)	6195	1	Averaging Plan	0.50	0.33	0.50	0.45	0.47	-30%
MO	Thomas Hill	Associated Electric Coop Inc	2168	MB3	Standard Limitation	0.50	0.28			0.31	-10%
MS	Jack Watson	Mississippi Power Co	2049	4	Averaging Plan	0.50	0.49	0.48	0.42	1.10	-55%
MS	Jack Watson	Mississippi Power Co	2049	5	Averaging Plan	0.50	0.64	0.48	0.42	1.22	-48%
MS	R D Morrow	South Mississippi El Pwr	6061	1	Averaging Plan	0.50	0.43	0.50	0.45	0.42	2%

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MS	R D Morrow	South Mississippi El Pwr	6061	2	Averaging Plan	0.50	0.48	0.50	0.45	0.43	12%
MS	Victor J Daniel Jr	Mississippi Power Co	6073	1	Averaging Plan	0.45	0.28	0.48	0.42	0.27	4%
MS	Victor J Daniel Jr	Mississippi Power Co	6073	2	Averaging Plan	0.45	0.26	0.48	0.42	0.28	-7%
NY	Dunkirk	Niagara Mohawk Power Corp	2554	3	Standard Limitation	0.45	0.32			0.48	-33%
NY	Dunkirk	Niagara Mohawk Power Corp	2554	4	Standard Limitation	0.45	0.32			0.48	-33%
NY	Greenidge	Nyseg	2527	6	Averaging Plan	0.45	0.50	0.45	0.40	0.55	-9%
NY	Milliken	Nyseg	2535	1	Averaging Plan	0.45	0.36	0.45	0.40	0.66	-45%
NY	Milliken	Nyseg	2535	2	Averaging Plan	0.45	0.36	0.45	0.40	0.59	-39%
OH	Ashtabula	Cleveland Electric Illum	2835	7	Standard Limitation	0.45	0.41			0.61	-33%
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	0.42			0.55	-24%
OH	Eastlake	Cleveland Electric Illum	2837	1	Standard Limitation	0.45	0.42			0.49	-14%
OH	Eastlake	Cleveland Electric Illum	2837	2	Standard Limitation	0.45	0.38			0.68	-44%
OH	Eastlake	Cleveland Electric Illum	2837	3	Standard Limitation	0.45	0.41			0.54	-24%
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	0.17	0.50	0.43	0.87	-80%
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	0.59	0.48	0.43	0.73	-19%
OH	Picway	Columbus Southern Power	2843	9	Standard Limitation	0.50	0.40			0.87	-54%
OH	R E Burger	Ohio Edison Co	2864	7	Averaging Plan	0.50	0.79	0.50	0.43	0.66	20%
OH	R E Burger	Ohio Edison Co	2864	8	Averaging Plan	0.50	0.77	0.50	0.43	0.72	7%
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	0.45	0.50	0.43	0.52	-13%
OH	W H Sammis	Ohio Edison Co	2866	6	Averaging Plan	0.50	0.38	0.50	0.43	1.10	-65%
OH	Walter C Beckjord	Cincinnati Gas & Electric Co	2830	5	Averaging Plan	0.45	0.45	0.48	0.43	0.72	-38%
OH	Walter C Beckjord	Cincinnati Gas & Electric Co	2830	6	Averaging Plan	0.45	0.42	0.48	0.43	0.71	-41%
PA	Armstrong	West Penn Power Co	3178	1	Averaging Plan	0.50	0.36	0.49	0.45	0.90	-60%
PA	Armstrong	West Penn Power Co	3178	2	Averaging Plan	0.50	0.36	0.49	0.45	1.04	-65%
PA	Bruce Mansfield	Ohio Edison Co	6094	1	Averaging Plan	0.50	0.35	0.50	0.43	0.98	-64%
PA	Bruce Mansfield	Ohio Edison co	6094	2	Averaging Plan	0.50	0.37	0.50	0.43	1.13	-67%

## Appendix C-2: Compliance Results for the 265 Phase I NO<sub>x</sub> Affected Units in 1997

ST	Plant Name	Operating Utility	ORIS Code	Boiler	Compliance Approach	1997				1990 Emission Rate	Change from 1990 to 1997
						Emission Limit	Actual Emission Rate	AEL or Avg. Plan Limit	Actual Avg. Plan Rate		
PA	Brunner Island	PP&L	3140	1	Averaging Plan	0.45	0.37	0.47	0.41	0.65	-43%
PA	Brunner Island	PP&L	3140	2	Averaging Plan	0.45	0.37	0.47	0.41	0.71	-48%
PA	Brunner Island	PP&L	3140	3	Averaging Plan	0.45	0.42	0.47	0.41	0.83	-49%
PA	Cheswick	Duquesne Light co	8226	1	Standard Limitation	0.45	0.41			0.71	-42%
PA	Conemaugh	GPU	3118	1	Standard Limitation	0.45	0.39			0.65	-40%
PA	Conemaugh	GPU	3118	2	Standard Limitation	0.45	0.38			0.71	-46%
PA	Martins Creek	PP&L	3148	1	Averaging Plan	0.50	0.45	0.47	0.41	1.03	-56%
PA	Martins Creek	PP&L	3148	2	Averaging Plan	0.50	0.45	0.47	0.41	0.93	-52%
PA	Mitchell	West Penn Power Co	3181	33	Averaging Plan	0.45	0.39	0.49	0.45	0.68	-43%
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	GPU	3113	1	Averaging Plan	0.45	0.30	0.45	0.37	0.46	-35%
PA	Portland	GPU	3113	2	Averaging Plan	0.45	0.41	0.45	0.37	0.66	-38%
PA	Shawville	GPU	3131	1	Standard Limitation	0.50	0.49			0.99	-51%
PA	Shawville	GPU	3131	2	Standard Limitation	0.50	0.49			1.02	-52%
PA	Shawville	GPU	3131	3	Standard Limitation	0.45	0.43			0.83	-48%
PA	Shawville	GPU	3131	4	Standard Limitation	0.45	0.43			0.82	-48%
PA	Sunbury	PP&L	3152	3	Averaging Plan	0.50	0.42	0.47	0.41	0.93	-55%
PA	Sunbury	PP&L	3152	4	Averaging Plan	0.50	0.42	0.47	0.41	1.29	-67%
TN	Gallatin	TVA	3403	1	Averaging Plan	0.45	0.39	0.47	0.44	0.59	-34%
TN	Gallatin	TVA	3403	2	Averaging Plan	0.45	0.39	0.47	0.44	0.63	-38%
TN	Gallatin	TVA	3403	3	Averaging Plan	0.45	0.39	0.47	0.44	0.59	-34%
TN	Gallatin	TVA	3403	4	Averaging Plan	0.45	0.39	0.47	0.44	0.55	-29%
TN	Johnsonville	TVA	3406	1	Averaging Plan	0.45	0.47	0.47	0.44	0.45	4%
TN	Johnsonville	TVA	3406	2	Averaging Plan	0.45	0.47	0.47	0.44	0.48	-2%
TN	Johnsonville	TVA	3406	3	Averaging Plan	0.45	0.47	0.47	0.44	0.46	2%
TN	Johnsonville	TVA	3406	4	Averaging Plan	0.45	0.47	0.47	0.44	0.54	-13%
TN	Johnsonville	TVA	3406	5	Averaging Plan	0.45	0.47	0.47	0.44	0.45	4%
TN	Johnsonville	TVA	3406	6	Averaging Plan	0.45	0.47	0.47	0.44	0.50	-6%
TN	Johnsonville	TVA	3406	7	Averaging Plan	0.50	0.47	0.47	0.44	1.00	-53%
TN	Johnsonville	TVA	3406	8	Averaging Plan	0.50	0.47	0.47	0.44	0.97	-52%
TN	Johnsonville	TVA	3406	9	Averaging Plan	0.50	0.47	0.47	0.44	1.10	-57%

## Appendix C-2: Compliance Results for the 265 Phase I NO<sub>x</sub> Affected Units in 1997

ST	Plant Name	Operating Utility	ORIS Code	Boiler	Compliance Approach	1997				1990 Emission Rate	Change from 1990 to 1997
						Emission Limit	Actual Emission Rate	AEL or Avg. Plan Limit	Actual Avg. Plan Rate		
TN	Johnsonville	TVA	3406	10	Averaging Plan	0.50	0.47	0.47	0.44	1.07	-56%
UT	Gadsby	Pacificorp	3648	3	Standard Limitation	0.45	0.07			0.53	-87%
WI	Alma	Dairyland Power Coop	4140	B4	Averaging Plan	0.50	0.79	0.48	0.45	0.85	-7%
WI	Alma	Dairyland Power Coop	4140	B5	Averaging Plan	0.50	0.79	0.48	0.45	0.85	-7%
WI	Genoa	Dairyland Power Coop	4143	1	Averaging Plan	0.45	0.47	0.48	0.45	0.75	-37%
WI	J P Madgett	Dairyland Power Coop	4271	B1	Averaging Plan	0.50	0.34	0.48	0.45	0.30	13%
WI	Port Washington	Wisconsin Electric Power Co	4040	1	Averaging Plan	0.50	0.32	0.48	0.36	0.32	0%
WI	Port Washington	Wisconsin Electric Power Co	4040	2	Averaging Plan	0.50	0.32	0.48	0.36	0.32	0%
WI	Port Washington	Wisconsin Electric Power Co	4040	3	Averaging Plan	0.50	0.32	0.48	0.36	0.32	0%
WI	Port Washington	Wisconsin Electric Power Co	4040	4	Averaging Plan	0.50	0.30	0.48	0.36	0.37	-19%
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	0.35	0.47	0.36	0.69	-49%
WI	Pulliam	Wisconsin Public Service	4072	8	Averaging Plan	0.50	0.36	0.47	0.36	0.57	-37%
WI	South Oak Creek	Wisconsin Electric Power Co	4041	5	Averaging Plan	0.50	0.24	0.48	0.36	0.28	-14%
WI	South Oak Creek	Wisconsin Electric Power Co	4041	6	Averaging Plan	0.50	0.24	0.48	0.36	0.28	-14%
WI	South Oak Creek	Wisconsin Electric Power Co	4041	7	Averaging Plan	0.45	0.40	0.48	0.36	0.66	-39%
WI	South Oak Creek	Wisconsin Electric Power Co	4041	8	Averaging Plan	0.45	0.40	0.48	0.36	0.67	-40%
WI	Valley	Wisconsin Electric Power Co	4042	1	Averaging Plan	0.50	0.44	0.48	0.36	1.10	-60%
WI	Valley	Wisconsin Electric Power Co	4042	2	Averaging Plan	0.50	0.44	0.48	0.36	1.10	-60%
WI	Valley	Wisconsin Electric Power Co	4042	3	Averaging Plan	0.50	0.52	0.48	0.36	1.05	-50%
WI	Valley	Wisconsin Electric Power Co	4042	4	Averaging Plan	0.50	0.52	0.48	0.36	0.93	-44%
WI	Weston	Wisconsin Public Service	4078	1	Averaging Plan	0.50	0.80	0.47	0.36	0.90	-11%
WI	Weston	Wisconsin Public Service	4078	2	Averaging Plan	0.50	0.78	0.47	0.36	1.08	-28%
WI	Weston	Wisconsin Public Service	4078	3	Averaging Plan	0.45	0.21	0.47	0.36	0.26	-19%
WV	Albright	Monongahela Power Co	3942	1	Averaging Plan	0.50	0.65	0.49	0.45	1.10	-41%
WV	Albright	Monongahela Power Co	3942	2	Averaging Plan	0.50	0.71	0.49	0.45	1.10	-35%
WV	Albright	Monongahela Power Co	3942	3	Averaging Plan	0.45	0.39	0.49	0.45	0.71	-45%
WV	Fort Martin	Monongahela Power Co	3943	1	Averaging Plan	0.45	0.63	0.49	0.45	0.62	2%
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	0.51	0.56		0.77	-34%

## Appendix C-2: Compliance Results for the 265 Phase I NO<sub>x</sub> Affected Units in 1997

ST	Plant Name	Operating Utility	ORIS Code	Boiler	Compliance Approach	1997				1990 Emission Rate	Change from 1990 to 1997
						Emission Limit	Actual Emission Rate	AEL or Avg. Plan Limit	Actual Avg. Plan Rate		
WV	Mitchell	Ohio Power Co	3948	2	AEL Demonstration	0.50	0.51	0.56		0.77	-34%
WV	Mt Storm	Veeco	3954	1	Extension <sup>1</sup>	0.45	0.79			0.88	-10%
WV	Mt Storm	Veeco	3954	3	AEL Demonstration <sup>2</sup>	0.45	0.65			1.27	-49%
WV	Pleasants	Monongahela Power Co	6004	1	Averaging Plan	0.50	0.38	0.49	0.45	0.52	-27%
WV	Pleasants	Monongahela Power Co	6004	2	Averaging Plan	0.50	0.35	0.49	0.45	0.35	0%
WY	Jim Bridger	Pacificorp	8066	BW71	Standard Limitation	0.45	0.39			0.63	-38%
WY	Jim Bridger	Pacificorp	8066	BW72	Standard Limitation	0.45	0.36			0.51	-29%
WY	Jim Bridger	Pacificorp	8066	BW73	Standard Limitation	0.45	0.39			0.42	-7%
WY	Wyodak	Pacificorp	6101	BW91	Standard Limitation	0.50	0.31			0.37	-16%

<sup>1</sup> Extension granted through 7/31/97 and Alternative Emission Limit pending.

<sup>2</sup> Alternative Emission Limitation pending.

### Appendix C-3: Compliance Results for the 272 Early Election Units in 1997

ST	Plant Name	Operating Utility	ORIS Code	Boiler	NSPS <sup>1</sup>	Emission Limit	Actual Emission Rate	1990 Emission Rate	Change from 1990 to 1997
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	Arkansas Power & Light Co	6641	1	D	0.45	0.28	0.34	-18%
AR	Independence	Arkansas Power & Light Co	6641	2	D	0.45	0.26	0.35	-26%
AR	White Bluff	Arkansas Power & Light Co	6009	1	D	0.45	0.36	0.29	24%
AR	White Bluff	Arkansas Power & Light Co	6009	2	D	0.45	0.35	0.34	3%
AZ	Apache Station	Arizona Electric Pwr Coop	160	2	D	0.50	0.47	0.58	-19%
AZ	Apache Station	Arizona Electric Pwr Coop	160	3	D	0.50	0.43	0.58	-26%
AZ	Cholla	Arizona Public Service	113	1		0.45	0.40	0.46	-13%
AZ	Cholla	Arizona Public Service	113	2	D	0.45	0.33	0.42	-21%
AZ	Cholla	Arizona Public Service	113	3	D	0.45	0.35	0.36	-3%
AZ	Cholla	Arizona Public Service	113	4	D	0.45	0.30	0.38	-21%
AZ	Coronado	Salt River Proj	6177	U1B	D	0.50	0.44	0.51	-14%
AZ	Coronado	Salt River Proj	6177	U2B	D	0.50	0.43	0.51	-16%
AZ	Navajo	Salt River Proj	4941	1		0.45	0.36	0.41	-12%
AZ	Navajo	Salt River Proj	4941	2		0.45	0.37	0.41	-10%
AZ	Navajo	Salt River Proj	4941	3		0.45	0.43	0.37	16%
AZ	Springerville	Tucson Electric Power Co	8223	1	D	0.45	0.39	0.34	15%
AZ	Springerville	Tucson Electric Power Co	8223	2	D	0.45	0.40	0.33	21%
CO	Cherokee	Public Service Co of CO	469	3		0.50	0.45	0.73	-38%
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	0.24	0.24	0%
CO	Comanche	Public Service Co of CO	470	2	D	0.50	0.24	0.31	-23%
CO	Craig	Tri-state G&T Association	6021	C1	D	0.50	0.34	0.39	-13%
CO	Craig	Tri-state G&T Association	6021	C2	D	0.50	0.36	0.40	-10%
CO	Craig	Tri-state G&T Association	6021	C3	Da	0.50	0.34	0.28	-13%
CO	Pawnee	Public Service Co of CO	6248	1	D	0.50	0.21	0.62	-66%
CO	Rawhide	Platte River Power	6761	101	Da	0.45	0.32	0.43	-26%
CO	Ray D Nixon	Colorado Springs Utilities	8219	1	D	0.50	0.38	0.54	-30%
CO	Valmont	Public Service Co of CO	477	5		0.45	0.28	0.66	-58%
CT	Bridgeport Harbor	United Illuminating Co	568	BHB3		0.45	0.25	0.56	-55%

<sup>1</sup> New Source Performance Standards subpart.

### Appendix C-3: Compliance Results for the 272 Early Election Units in 1997

ST	Plant Name	Operating Utility	ORIS Code	Boiler	NSPS <sup>1</sup>	Emission Limit	Actual Emission Rate	1990 Emission Rate	Change from 1990 to 1997
FL	C D McIntosh Jr	City of Lakeland	676	3	D	0.50	0.44	0.46	-4%
FL	Crystal River	Florida Power Corporation	628	2		0.45	0.43	0.38	13%
FL	Crystal River	Florida Power Corporation	628	4	D	0.50	0.49	0.50	-2%
FL	Crystal River	Florida Power Corporation	628	5	D	0.50	0.49	0.47	4%
FL	Deerhaven	Gainesville Regional Util	663	B2	D	0.50	0.49	0.53	-8%
FL	Seminole	Seminole Electric Coop Inc	136	1	Da	0.50	0.42	0.43	-2%
FL	Seminole	Seminole Electric Coop Inc	136	2	Da	0.50	0.40	0.36	11%
FL	St Johns River Power	Jacksonville Electric Auth	207	1	Da	0.50	0.48	0.50	-4%
FL	St Johns River Power	Jacksonville Electric Auth	207	2	Da	0.50	0.48	0.59	-19%
GA	Scherer	Georgia Power Co	6257	4	D	0.45	0.32	0.21	52%
IA	Ames	City of Ames	1122	7		0.45	0.36	0.60	-40%
IA	Ames	City of Ames	1122	8	D	0.50	0.43	0.55	-22%
IA	Council Bluffs	Midamerican Energy Company	1082	1		0.50	0.41	0.56	-27%
IA	Council Bluffs	Midamerican Energy Company	1082	2		0.45	0.34	0.33	3%
IA	Council Bluffs	Midamerican Energy Company	1082	3	D	0.50	0.40	0.37	8%
IA	George Neal North	Midamerican Energy Company	1091	2		0.50	0.46	1.06	-57%
IA	George Neal North	Midamerican Energy Company	1091	3	D	0.50	0.47	0.39	21%
IA	George Neal South	Midamerican Energy Company	7343	4	D	0.50	0.43	0.64	-33%
IA	Lansing	Interstate Power Co	1047	4	D	0.50	0.40	0.50	-20%
IA	Louisa	Midamerican Energy Company	6664	101	D	0.50	0.27	0.25	8%
IA	Ottumwa	IES Utilities, Inc.	6254	1	D	0.45	0.36	0.69	-48%
IL	Crawford	Commonwealth Edison Co	867	7		0.45	0.32	0.33	-3%
IL	Crawford	Commonwealth Edison Co	867	8		0.45	0.40	0.48	-17%
IL	Dallman	City of Springfield, IL	963	33	D	0.45	0.34	0.55	-38%
IL	Fisk	Commonwealth Edison Co	886	19		0.45	0.35	0.39	-10%
IL	Waukegan	Commonwealth Edison Co	883	7		0.45	0.34	0.26	31%
IL	Waukegan	Commonwealth Edison Co	883	8		0.45	0.39	0.41	-5%
IL	Will County	Commonwealth Edison Co	884	3		0.45	0.40	0.39	3%
IL	Will County	Commonwealth Edison Co	884	4		0.45	0.35	0.31	13%
IN	A B Brown	Southern Indiana Gas & Elec	6137	1	D	0.50	0.43	0.61	-30%
IN	A B Brown	Southern Indiana Gas & Elec	6137	2	Da	0.50	0.46	0.39	18%

<sup>1</sup> New Source Performance Standards subpart.



### Appendix C-3: Compliance Results for the 272 Early Election Units in 1997

ST	Plant Name	Operating Utility	ORIS Code	Boiler	NSPS <sup>1</sup>	Emission Limit	Actual Emission Rate	1990 Emission Rate	Change from 1990 to 1997
IN	Dean H Mitchell	Northern Indiana Pub Serv	996	4		0.45	0.34	0.43	-21%
IN	Dean H Mitchell	Northern Indiana Pub Serv	996	5		0.45	0.34	0.43	-21%
IN	Dean H Mitchell	Northern Indiana Pub Serv	996	6		0.45	0.33	0.58	-43%
IN	Dean H Mitchell	Northern Indiana Pub Serv	996	11		0.50	0.33	0.58	-43%
IN	Merom	Hoosier Energy	6213	1SG1	D	0.50	0.41	0.23	78%
IN	Merom	Hoosier Energy	6213	2SG1	D	0.50	0.40	0.63	-37%
IN	R M Schahfer	Northern Indiana Pub Serv	6085	15	D	0.50	0.21	0.42	-50%
IN	R M Schahfer	Northern Indiana Pub Serv	6085	17	Da	0.45	0.38	0.46	-17%
IN	R M Schahfer	Northern Indiana Pub Serv	6085	18	Da	0.45	0.36	0.44	-18%
IN	Rockport	Indiana Michigan Power Co	6166	MB1 <sup>2</sup>	D	0.50	0.35	0.32	9%
IN	Rockport	Indiana Michigan Power Co	6166	MB2 <sup>2</sup>	D	0.50	0.35	0.32	9%
IN	State Line	Commonwealth Edison Co	981	3		0.45	0.24	0.32	-25%
IN	Whitewater Valley	City of Richmond, IN	1040	1		0.50	0.41	0.71	-42%
IN	Whitewater Valley	City of Richmond, IN	1040	2		0.45	0.41	0.71	-42%
KS	Nearman Creek	Board of Public Util, KS City	6064	N1	D	0.50	0.43	0.46	-7%
KS	Riverton	Empire District Electric	1239	39		0.50	0.38	0.83	-54%
KS	Riverton	Empire District Electric	1239	40		0.45	0.40	0.55	-27%
KY	Cane Run	Louisville Gas & Electric	1363	4		0.50	0.43	0.84	-49%
KY	Cane Run	Louisville Gas & Electric	1363	5		0.50	0.47	1.15	-59%
KY	Cane Run	Louisville Gas & Electric	1363	6		0.45	0.39	1.02	-62%
KY	D B Wilson	Big Rivers Electric	6823	W1	Da	0.50	0.48	0.56	-14%
KY	Mill Creek	Louisville Gas & Electric	1364	1		0.45	0.42	0.76	-45%
KY	Mill Creek	Louisville Gas & Electric	1364	2		0.45	0.44	0.79	-44%
KY	Mill Creek	Louisville Gas & Electric	1364	3	D	0.50	0.42	0.62	-32%
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	0.41	0.62	-34%
LA	Big Cajun 2	Cajun Electric Power	6055	2B1	D	0.50	0.31	0.28	11%
LA	Big Cajun 2	Cajun Electric Power	6055	2B2	D	0.50	0.30	0.25	20%
LA	Big Cajun 2	Cajun Electric Power	6055	2B3	D	0.50	0.27	0.24	13%

<sup>1</sup> New Source Performance Standards subpart.

<sup>2</sup> Conditionally in compliance pending Phase I permit review.

### Appendix C-3: Compliance Results for the 272 Early Election Units in 1997

ST	Plant Name	Operating Utility	ORIS Code	Boiler	NSPS <sup>1</sup>	Emission Limit	Actual Emission Rate	1990 Emission Rate	Change from 1990 to 1997
LA	Dolet Hills	Central Louisiana Elec Co	51	1	D	0.50	0.45	0.62	-27%
LA	R S Nelson	Gulf States Utilities	1393	6	D	0.45	0.42	0.20	110%
LA	Rodemacher	Central Louisiana Elec Co	6190	2	D	0.50	0.37	0.38	-3%
MI	B C Cobb	Consumers Energy Co	1695	4		0.45	0.40	0.38	5%
MI	B C Cobb	Consumers Energy Co	1695	5		0.45	0.37	0.36	3%
MI	J B Sims	City of Grand Haven	1825	3	Da	0.50	0.48	0.51	-6%
MI	J C Weadock	Consumers Energy Co	1720	7		0.45	0.41	0.44	-7%
MI	J C Weadock	Consumers Energy Co	1720	8		0.45	0.41	0.44	-7%
MI	J R Whiting	Consumers Energy Co	1723	1		0.50	0.38	0.82	-54%
MI	J R Whiting	Consumers Energy Co	1723	3		0.50	0.39	1.04	-63%
MI	Presque Isle	Upper Peninsula Power Co	1769	7	D	0.50	0.44	0.49	-10%
MI	Presque Isle	Upper Peninsula Power Co	1769	8	D	0.50	0.42	0.53	-21%
MI	Presque Isle	Upper Peninsula Power Co	1769	9	D	0.50	0.44	0.66	-33%
MN	Clay Boswell	Minnesota Power & Light Co	1893	3		0.45	0.32	0.42	-24%
MN	Hoot Lake	Otter Tail Power Co	1943	2		0.45	0.38	0.58	-34%
MO	Sikeston	Sikeston Board of Mun Util	6768	1	D	0.50	0.37	0.51	-27%
MT	Colstrip	Montana Power Company	6076	1	D	0.45	0.39	0.42	-7%
MT	Colstrip	Montana Power Company	6076	2	D	0.45	0.41	0.43	-5%
MT	Colstrip	Montana Power Company	6076	3	Da	0.45	0.40	0.34	18%
MT	Colstrip	Montana Power Company	6076	4	Da	0.45	0.40	0.35	14%
MT	Lewis & Clark	Montana-Dakota Utilities Co	6089	B1		0.45	0.37	0.57	-35%
NC	Buck	Duke Energy Corporation	2720	5		0.45	0.45	0.59	-24%
NC	Buck	Duke Energy Corporation	2720	6		0.45	0.45	0.54	-17%
NC	Buck	Duke Energy Corporation	2720	7		0.45	0.44	0.57	-23%
NC	Buck	Duke Energy Corporation	2720	8		0.45	0.44	0.45	-2%
NC	Buck	Duke Energy Corporation	2720	9		0.45	0.45	0.51	-12%
NC	Cliffside	Duke Energy Corporation	2721	1		0.45	0.44	Not Oper.	
NC	Cliffside	Duke Energy Corporation	2721	2		0.45	0.44	Not Oper.	
NC	Cliffside	Duke Energy Corporation	2721	3		0.45	0.38	Not Oper.	
NC	Cliffside	Duke Energy Corporation	2721	4		0.45	0.44	Not Oper.	
NC	Cliffside	Duke Energy Corporation	2721	5		0.45	0.44	0.51	-14%
NC	Dan River	Duke Energy Corporation	2723	1		0.45	0.44	0.52	-15%

<sup>1</sup> New Source Performance Standards subpart.

### Appendix C-3: Compliance Results for the 272 Early Election Units in 1997

ST	Plant Name	Operating Utility	ORIS Code	Boiler	NSPS <sup>1</sup>	Emission Limit	Actual Emission Rate	1990 Emission Rate	Change from 1990 to 1997
NC	Dan River	Duke Energy Corporation	2723	2		0.45	0.44	0.55	-20%
NC	Dan River	Duke Energy Corporation	2723	3		0.45	0.44	0.56	-21%
NC	G G Allen	Duke Energy Corporation	2718	1		0.45	0.43	0.65	-34%
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	0.44	0.64	-31%
NC	G G Allen	Duke Energy Corporation	2718	4		0.45	0.43	0.68	-37%
NC	G G Allen	Duke Energy Corporation	2718	5		0.45	0.43	0.68	-37%
NC	Marshall	Duke Energy Corporation	2727	1		0.45	0.43	0.48	-10%
NC	Marshall	Duke Energy Corporation	2727	2		0.45	0.44	0.61	-28%
NC	Marshall	Duke Energy Corporation	2727	3		0.45	0.44	0.52	-15%
NC	Marshall	Duke Energy Corporation	2727	4		0.45	0.44	0.70	-37%
NC	RiverbEnd	Duke Energy Corporation	2732	7		0.45	0.42	0.58	-28%
NC	RiverbEnd	Duke Energy Corporation	2732	8		0.45	0.40	0.64	-38%
NC	RiverbEnd	Duke Energy Corporation	2732	9		0.45	0.43	Not Oper.	
NC	RiverbEnd	Duke Energy Corporation	2732	10		0.45	0.43	Not Oper.	
ND	Antelope Valley	Basin Electric Power	6469	B1	D	0.45	0.29	0.43	-33%
ND	Antelope Valley	Basin Electric Power	6469	B2	D	0.45	0.28	0.27	4%
ND	Leland Olds	Basin Electric Power	2817	1		0.50	0.27	0.74	-64%
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	0.48	0.40	20%
NE	Gerald Gentleman Sta	Nebraska Public Power Dist	6077	2	D	0.50	0.34	0.35	-3%
NE	Gerald Whelan Energy	City of Hastings	60	1	D	0.45	0.26	0.30	-13%
NE	Nebraska City	Omaha Public Power Dist	6096	1	D	0.50	0.43	0.48	-10%
NE	North Omaha	Omaha Public Power Dist	2291	4		0.45	0.31	0.38	-18%
NE	Platte	City of Grand Island	59	1	D	0.45	0.37	0.48	-23%
NM	Escalante	Plains Electric Gen & Trans	87	1	Da	0.45	0.39	0.35	11%
NV	Mohave	Southern California Edison	2341	1		0.45	0.42	0.38	11%
NV	Mohave	Southern California Edison	2341	2		0.45	0.39	0.46	-15%
NV	North Valmy	Sierra Pacific Power Co	8224	1	D	0.50	0.30	0.51	-41%
NV	North Valmy	Sierra Pacific Power Co	8224	2	Da	0.50	0.29	0.40	-28%
NV	Reid Gardner	Nevada Power Company	2324	4	Da	0.50	0.27	0.38	-29%

<sup>1</sup> New Source Performance Standards subpart.

### Appendix C-3: Compliance Results for the 272 Early Election Units in 1997

ST	Plant Name	Operating Utility	ORIS Code	Boiler	NSPS <sup>1</sup>	Emission Limit	Actual Emission Rate	1990 Emission Rate	Change from 1990 to 1997
NY	C R Huntley	Niagara Mohawk Power Corp	2549	67		0.45	0.31	0.64	-52%
NY	C R Huntley	Niagara Mohawk Power Corp	2549	68		0.45	0.31	0.64	-52%
NY	Dunkirk	Niagara Mohawk Power Corp	2554	1		0.45	0.34	0.48	-29%
NY	Dunkirk	Niagara Mohawk Power Corp	2554	2		0.45	0.34	0.48	-29%
NY	Kintigh	Nyseg	6082	1	Da	0.50	0.45	0.62	-27%
NY	S A Carlson	City of Jamestown	2682	9		0.50	0.45	0.90	-50%
NY	S A Carlson	City of Jamestown	2682	10		0.50	0.47	0.90	-48%
NY	S A Carlson	City of Jamestown	2682	11		0.50	0.47	1.05	-55%
NY	S A Carlson	City of Jamestown	2682	12		0.50	0.45	0.83	-46%
OH	Conesville	Columbus Southern Power	2840	5	D	0.45	0.42	0.44	-5%
OH	Conesville	Columbus Southern Power	2840	6	D	0.45	0.42	0.44	-5%
OH	W H Zimmer	Cincinnati Gas & Electric Co	6019	1	Da	0.50	0.45	Not Oper.	
OK	Muskogee	Oklahoma Gas & Electric Co	2952	4	D	0.45	0.35	0.44	-20%
OK	Muskogee	Oklahoma Gas & Electric Co	2952	5	D	0.45	0.39	0.41	-5%
OK	Muskogee	Oklahoma Gas & Electric Co	2952	6	D	0.45	0.37	0.44	-16%
OK	Northeastern	Public Service Co of OK	2963	3313	D	0.45	0.40	0.53	-25%
OK	Northeastern	Public Service Co of OK	2963	3314	D	0.45	0.40	0.53	-25%
OK	Sooner	Oklahoma Gas & Electric Co	6095	1	D	0.45	0.38	0.33	15%
OK	Sooner	Oklahoma Gas & Electric Co	6095	2	D	0.45	0.40	0.42	-5%
OR	Boardman	Portland General Electric	6106	1SG	D	0.50	0.35	0.40	-13%
PA	Bruce Mansfield	Ohio Edison Co	6094	3	D	0.50	0.38	0.57	-33%
PA	Cromby	Peco Energy Company	3159	1		0.50	0.45	0.60	-25%
PA	Eddystone	Peco Energy Company	3161	1		0.45	0.30	0.42	-29%
PA	Eddystone	Peco Energy Company	3161	2		0.45	0.30	0.50	-40%
PA	Homer City	GPU	3122	1		0.50	0.47	1.09	-57%
PA	Homer City	GPU	3122	2		0.50	0.43	1.04	-59%
PA	Homer City	GPU	3122	3	D	0.50	0.41	0.62	-34%
PA	Keystone	GPU	3136	1		0.45	0.39	0.79	-51%
PA	Keystone	GPU	3136	2		0.45	0.39	0.79	-51%
PA	Montour	PP&L	3149	1		0.45	0.43	0.95	-55%
PA	Montour	PP&L	3149	2		0.45	0.42	0.46	-9%

<sup>1</sup> New Source Performance Standards subpart.

### Appendix C-3: Compliance Results for the 272 Early Election Units in 1997

ST	Plant Name	Operating Utility	ORIS Code	Boiler	NSPS <sup>1</sup>	Emission Limit	Actual Emission Rate	1990 Emission Rate	Change from 1990 to 1997
PA	New Castle	Ohio Edison Co	3138	3		0.50	0.46	0.63	-27%
PA	New Castle	Ohio Edison Co	3138	4		0.50	0.42	0.57	-26%
PA	New Castle	Ohio Edison Co	3138	5		0.50	0.48	0.73	-34%
PA	Titus	GPU	3115	1		0.45	0.37	0.73	-49%
PA	Titus	GPU	3115	2		0.45	0.39	0.68	-43%
PA	Titus	GPU	3115	3		0.45	0.39	0.77	-49%
SC	Cross	South Carolina Pub Serv	130	1	Da	0.50	0.32	Not Oper.	
SC	Cross	South Carolina Pub Serv	130	2	Da	0.45	0.38	0.46	-17%
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	-12%
TN	John Sevier	TVA	3405	1		0.45	0.41	0.62	-34%
TN	John Sevier	TVA	3405	2		0.45	0.41	0.62	-34%
TN	John Sevier	TVA	3405	3		0.45	0.43	0.64	-33%
TN	John Sevier	TVA	3405	4		0.45	0.43	0.64	-33%
TX	Big Brown	Texas Utilities Electric Co	3497	1		0.45	0.40	0.40	0%
TX	Big Brown	Texas Utilities Electric Co	3497	2		0.45	0.36	0.34	6%
TX	Coleto Creek	Central Power & Light Co	6178	1	D	0.45	0.36	0.38	-5%
TX	Gibbons Creek	Texas Municipal Power Agency	6136	1	D	0.45	0.37	0.47	-21%
TX	Harrington Station	Southwestern Public Service	6193	061B	D	0.45	0.24	0.27	-11%
TX	Harrington Station	Southwestern Public Service	6193	062B	D	0.45	0.29	0.36	-19%
TX	Harrington Station	Southwestern Public Service	6193	063B	D	0.45	0.27	0.36	-25%
TX	J K Spruce	City of San Antonio	7097	**1	Da	0.45	0.35	Not Oper.	
TX	J T Deely	City of San Antonio	6181	1	D	0.45	0.36	0.31	16%
TX	J T Deely	City of San Antonio	6181	2	D	0.45	0.36	0.31	16%
TX	Limestone	Houston Lighting & Power	298	LIM1	Da	0.45	0.41	0.50	-18%
TX	Limestone	Houston Lighting & Power	298	LIM2	Da	0.45	0.42	0.48	-13%
TX	Martin Lake	Texas Utilities Electric Co	6146	1	D	0.45	0.32	0.36	-11%
TX	Martin Lake	Texas Utilities Electric Co	6146	2	D	0.45	0.30	0.35	-14%
TX	Martin Lake	Texas Utilities Electric Co	6146	3	D	0.45	0.37	0.42	-12%
TX	Monticello	Texas Utilities Electric Co	6147	1		0.45	0.31	0.31	0%

<sup>1</sup> New Source Performance Standards subpart.

### Appendix C-3: Compliance Results for the 272 Early Election Units in 1997

ST	Plant Name	Operating Utility	ORIS Code	Boiler	NSPS <sup>1</sup>	Emission Limit	Actual Emission Rate	1990 Emission Rate	Change from 1990 to 1997
TX	Monticello	Texas Utilities Electric Co	6147	2		0.45	0.31	0.40	-23%
TX	Monticello	Texas Utilities Electric Co	6147	3	D	0.50	0.24	0.21	14%
TX	Oklauion	West Texas Utilities Co	127	1	Da	0.50	0.48	0.54	-11%
TX	Pirkey	Southwestern Electric Power	7902	1	D	0.50	0.36	0.34	6%
TX	Sam Seymour	Lower Colorado River Auth	6179	1	D	0.45	0.34	0.34	0%
TX	Sam Seymour	Lower Colorado River Auth	6179	2	D	0.45	0.38	0.29	31%
TX	Sam Seymour	Lower Colorado River Auth	6179	3	Da	0.45	0.27	0.25	8%
TX	San Miguel	San Miguel Electric Coop	6183	SM-1	D	0.50	0.42	0.41	2%
TX	Sadow	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	0.32	0.38	-16%
TX	Tolk Station	Southwestern Public Service	6194	172B	D	0.45	0.30	0.24	25%
TX	W A Parish	Houston Lighting & Power	3470	WAP5	D	0.50	0.36	0.47	-23%
TX	W A Parish	Houston Lighting & Power	3470	WAP6	D	0.50	0.40	0.53	-25%
TX	W A Parish	Houston Lighting & Power	3470	WAP7	D	0.45	0.40	0.35	14%
TX	W A Parish	Houston Lighting & Power	3470	WAP8	Da	0.45	0.37	0.31	19%
TX	Welsh	Southwestern Electric Power	6139	1	D	0.50	0.26	0.27	-4%
TX	Welsh	Southwestern Electric Power	6139	2	D	0.50	0.29	0.36	-19%
TX	Welsh	Southwestern Electric Power	6139	3	D	0.50	0.27	0.37	-27%
UT	Bonanza	Deseret Generation & Tran	7790	1-1	Da	0.50	0.37	0.42	-12%
UT	Carbon	Pacificorp	3644	1		0.45	0.38	0.50	-24%
UT	Carbon	Pacificorp	3644	2		0.45	0.39	0.58	-33%
UT	Hunter (Emery)	Pacificorp	6165	1	D	0.45	0.41	0.50	-18%
UT	Hunter (Emery)	Pacificorp	6165	2	D	0.45	0.40	0.55	-27%
UT	Huntington	Pacificorp	8069	1	D	0.45	0.37	0.52	-29%
UT	Intermountain	Intermountain Power Agency	6481	1SGA	Da	0.50	0.39	0.45	-13%
UT	Intermountain	Intermountain Power Agency	6481	2SGA	Da	0.50	0.36	0.38	-5%
VA	Chesapeake	Vepco	3803	1		0.45	0.45	0.42	7%
VA	Chesapeake	Vepco	3803	2		0.45	0.44	0.48	-8%
VA	Chesapeake	Vepco	3803	4		0.45	0.43	0.54	-20%
VA	Chesterfield	Vepco	3797	3		0.45	0.42	0.52	-19%
VA	Chesterfield	Vepco	3797	4		0.45	0.45	0.49	-8%

<sup>1</sup> New Source Performance Standards subpart.

### Appendix C-3: Compliance Results for the 272 Early Election Units in 1997

ST	Plant Name	Operating Utility	ORIS Code	Boiler	NSPS <sup>1</sup>	Emission Limit	Actual Emission Rate	1990 Emission Rate	Change from 1990 to 1997
VA	Glen Lyn	Appalachian Power Co	3776	51		0.45	0.42	0.46	-9%
VA	Glen Lyn	Appalachian Power Co	3776	52		0.45	0.39	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	0.39	0.44	-11%
VA	Potomac River	Pepco	3788	3		0.45	0.44	0.64	-31%
VA	Potomac River	Pepco	3788	4		0.45	0.42	0.46	-9%
VA	Potomac River	Pepco	3788	5		0.45	0.45	0.72	-38%
VA	Yorktown	Vepco	3809	1		0.45	0.44	0.57	-23%
VA	Yorktown	Vepco	3809	2		0.45	0.45	0.57	-21%
WA	Centralia	Pacificorp	3845	BW21		0.45	0.36	0.40	-10%
WA	Centralia	Pacificorp	3845	BW22		0.45	0.37	0.45	-18%
WI	Blount Street	Madison Gas & Electric Co	3992	8		0.50	0.41	0.71	-42%
WI	Blount Street	Madison Gas & Electric Co	3992	9		0.50	0.49	0.61	-20%
WI	Columbia	Wisconsin Power & Light	8023	1		0.45	0.41	0.46	-11%
WI	Columbia	Wisconsin Power & Light	8023	2	D	0.45	0.37	0.49	-24%
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	0.40	0.48	-17%
WY	Dave Johnston	Pacificorp	4158	BW42		0.50	0.42	0.54	-22%
WY	Jim Bridger	Pacificorp	8066	BW74	D	0.45	0.36	0.41	-12%
WY	Laramie River	Basin Electric Power	6204	1	D	0.50	0.32	0.35	-9%
WY	Laramie River	Basin Electric Power	6204	2	D	0.50	0.22	0.32	-31%
WY	Laramie River	Basin Electric Power	6204	3	D	0.50	0.31	0.42	-26%

<sup>1</sup> New Source Performance Standards subpart.