

# **Technical Documentation of the Phase I Extension Reserve**

**Prepared for:**

**U.S. Environmental Protection Agency  
Office of Atmospheric and Indoor Air Programs  
Washington, DC 20460**

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**Section 404(a)(2):**

*Not later than December 31, 1991, the Administrator shall determine the total tonnage of reductions in the emissions of sulfur dioxide from all utility units in calendar year 1995 that will occur as a result of compliance with the emissions limitation requirements of this section, and shall establish a reserve of allowances equal in amount to the number of tons determined thereby not to exceed a total of 3.50 million tons. In making such a determination, the Administrator shall compute for each unit subject to the emissions limitation requirements of this section the difference between:*

*(A) the product of its baseline multiplied by the lesser of each unit's allowable 1985 emissions rate and its actual 1985 emissions rate, divided by 2,000, and*

*(B) the product of each unit's baseline multiplied by 2.50 lbs/mmBtu divided by 2000, and sum the computations. The Administrator shall adjust the foregoing calculation to reflect projected calendar year 1995 utilization of the units subject to the emissions limitations of this title that the Administrator finds would have occurred in the absence of the imposition of such requirements. Pursuant to subsection (d), the Administrator shall allocate allowances from the reserve established hereinunder until the earlier of such time as all such allowances in the reserve are allocated or December 31, 1999.*

\* \* \* \* \*

**Introduction**

This report details the analysis of the size and calculation of the reserve established in section 404(a)(2) of the Clean Air Act, as amended by the Clean Air Act Amendments of 1990 (CAAA). The size of this reserve will determine the total amount of credits available to be used by Phase I extension units as outlined in §404(d).

Note that the purpose of this analysis is not to estimate the demand for the reserve or potential claims on and disbursement of the reserve, but simply to calculate the size of the reserve to determine how much will be available for disbursement.

**Summary of Findings**

- As noted in the Act, the size of the Phase I reserve is limited to the lesser of 3.5 million tons or a series of calculated Phase I unit reductions.
- Using the procedure as outlined in §404(a)(2) and based on NADB Version 2.1, the Phase I reserve will in fact equal the 3.5 million ton limit, since the calculated Phase I unit reductions would exceed 3.5 million tons in all the cases evaluated.

**Background on the Reserve Provision**

Section 404(a)(2) establishes a reserve, which is defined to equal "the total tonnage of reductions in the emissions of sulfur dioxide from all utility units in calendar year 1995 that will occur as a result of compliance with the emission limitation requirements of this section." This reserve is created so that Phase I units which employ qualifying Phase I technology (i.e., those that install retrofit scrubbers or other SO<sub>2</sub> removal equipment achieving 90% or better removal in Phase I) can become Phase I extension units and receive additional allowances. According

summed over all Phase I affected units, but limited to 3.5 million tons, according to the formula:

Equation (2)

$$\text{Size of Reserve} = \sum_{i=1}^{\text{Affected Units}} \left( \left[ \frac{1995 \text{ Fuel}_i \times \min \left( \frac{1985 \text{ Actual } SO_2 \text{ Rate}}{SO_2 \text{ Limit}}, \frac{1985 \text{ Allowable } SO_2 \text{ Rate}}{SO_2 \text{ Limit}} \right)}{2,000} \right] - \left[ \frac{1995 \text{ Fuel}_i \times 2.5}{2,000} \right] \right)$$

The 1985 actual and allowable SO<sub>2</sub> rates from the NADB V2.1 were used to estimate the size of the reserve. This data has been extensively quality assured and confirmed, for the most part, by the regulated community as accurate. Note that the use of 1985 actual and allowable SO<sub>2</sub> rates represents a conservative estimate of 1995 rates, and assumes that no additional restrictions will be placed upon SO<sub>2</sub> emissions, either through state or local action or through the promulgation of PSD or NSPS regulations.

Comments received by EPA on the proposed core rules asserted that Phase II units may be tempted to switch fuels during Phase I, using the Phase I unit's higher-sulfur content fuel, which could result in excess emissions in Phase I. The commenters suggested that EPA consider this potential fuel switching when calculating the size of the Phase I Extension Reserve. However, this suggestion was not adopted for a number of reasons. First, such switching is unlikely, given that boilers often are designed to burn only certain types of coal, precluding the use of high-sulfur coals in boilers not designed for them. Furthermore, existing SO<sub>2</sub> emissions limits at Phase II units would prevent such units from freely switching to higher-sulfur fuels. Second, EPA would have no way of knowing which units or how many foreseeably could swap coal supplies in this manner. Finally, the Act specifies the equations by which the size of the Reserve is calculated, as described above. The equations do not involve any reference to Phase II unit emissions, or, contrary to comments, to actual Phase I unit emissions for 1995. Thus, while EPA understands the purpose of the Extension Reserve, EPA does not agree with the technical nature of these comments or that such coal "swapping" can be dealt with in the calculation of the Phase I Extension Reserve. Accordingly, such "swapping" was not considered in the calculations.

### Calculation of the Reserve

As mentioned above, there is some uncertainty regarding the calculation of the size of the reserve since the calculation relies on 1995 projected utilization for Phase I units. Table 1 below presents the results of the size of the Phase I reserve under several cases assuming different levels of utilization, based on data from NADB v2.1 (more detailed unit by unit information is presented in Attachments A, B, and C).

As Table 1 shows, the National Allowance Data Base version 2.1 (NADB) produces a reserve equal to 3.5 million tons under all three cases. Case 1 is calculated from baseline fuel

In summary, in every case, the calculated reductions exceed 3.5 million tons. Even under a "worst case scenario", where NADB version 2.1 baseline fuel is used and no adjustments are made for 1995 projected utilization, the reserve would still total more than 3.5 million tons.

ATTACHMENT A-- PHASE I RESERVE CALCULATIONS (THOUSAND TONS)

						CASE 1: 1985 NADB Baseline			
State	Plant	BLR	GEN	1985 RATE	ANN. LIMIT	1985 BASELINE		CASE 1:	
						ADJUSTED BASELINE	x MIN OF RATE, LIMIT	BASELINE x 2.5	RATE/LIMIT-2.5 x BASELINE
ALABAMA	COLBERT	1	1	3.8348	3.56	10.859	19.328	13.573	5.755
ALABAMA	COLBERT	2	2	3.8352	3.56	12.246	21.799	15.308	6.491
ALABAMA	COLBERT	3	3	3.8348	3.56	12.322	21.933	15.403	6.531
ALABAMA	COLBERT	4	4	3.8324	3.56	12.331	21.950	15.414	6.536
ALABAMA	COLBERT	5	5	3.816	3.56	29.744	52.944	37.179	15.764
ALABAMA	E C GASTON	1	1	2.7234	3.68	14.479	19.715	18.098	1.617
ALABAMA	E C GASTON	2	2	2.7235	3.68	14.833	20.198	18.541	1.658
ALABAMA	E C GASTON	3	3	2.7235	3.68	14.648	19.946	18.309	1.637
ALABAMA	E C GASTON	4	ST4	2.7235	3.68	15.423	21.003	19.279	1.724
ALABAMA	E C GASTON	5	5	2.7578	3.68	47.874	66.014	59.843	6.171
FLORIDA	BIG BEND	BB01	1	4.7513	5.785	22.557	53.586	28.196	25.391
FLORIDA	BIG BEND	BB02	ST2	4.7803	5.785	22.516	53.816	28.145	25.671
FLORIDA	BIG BEND	BB03	ST3	3.3348	5.785	20.869	34.798	26.087	8.711
FLORIDA	CRIST	6	6	4.3301	5.251	15.363	34.798	19.204	15.594
FLORIDA	CRIST	7	7	4.5118	5.251	22.529	50.822	28.161	22.662
GEORGIA	BOWEN	1BLR	1	3.0225	4.4322	43.814	66.213	54.767	11.446
GEORGIA	BOWEN	2BLR	2	3.0225	4.4322	45.060	68.096	56.325	11.772
GEORGIA	BOWEN	3BLR	3	3.0225	4.4322	57.403	86.751	71.754	14.997
GEORGIA	BOWEN	4BLR	4	3.0225	4.4322	57.390	86.731	71.738	14.993
GEORGIA	HAMMOND	1	1	2.6164	4.4322	7.025	9.190	8.782	0.409
GEORGIA	HAMMOND	2	2	2.6161	4.4322	7.373	9.645	9.217	0.428
GEORGIA	HAMMOND	3	3	2.6161	4.4322	7.129	9.325	8.911	0.414
GEORGIA	HAMMOND	4	4	2.6163	4.4322	30.113	39.392	37.641	1.751
GEORGIA	JACK MCDONOUGH	MB1	1	3.9602	4.4322	15.927	31.538	19.909	11.629
GEORGIA	JACK MCDONOUGH	MB2	2	3.9722	4.4322	16.483	32.736	20.603	12.133
GEORGIA	WANSLEY	1	1	4.5914	4.4322	56.616	125.466	70.770	54.697
GEORGIA	WANSLEY	2	2	4.5914	4.4322	52.341	115.992	65.426	50.566
GEORGIA	YATES	Y1BR	1	3.6889	4.4322	5.766	10.635	7.207	3.427
GEORGIA	YATES	Y2BR	2	3.6887	4.4322	5.631	10.386	7.039	3.347
GEORGIA	YATES	Y3BR	3	3.6888	4.4322	5.561	10.257	6.952	3.306
GEORGIA	YATES	Y4BR	4	3.6889	4.4322	7.130	13.150	8.912	4.238
GEORGIA	YATES	Y5BR	5	3.6888	4.4322	7.525	13.879	9.406	4.473
GEORGIA	YATES	Y6BR	6	3.6888	4.4322	19.809	36.536	24.761	11.775
GEORGIA	YATES	Y7BR	7	3.6888	4.4322	19.485	35.937	24.356	11.582
ILLINOIS	BALDWIN	1	1	5.221	5.34	33.608	87.733	42.010	45.723
ILLINOIS	BALDWIN	2	2	5.2186	5.34	35.533	92.715	44.416	48.299
ILLINOIS	BALDWIN	3	3	5.2186	5.34	34.042	88.825	42.552	46.273
ILLINOIS	COFFEEN	01	1	6.7713	11.82	9.434	31.940	11.792	20.148
ILLINOIS	COFFEEN	02	2	6.8505	11.82	28.532	97.731	35.666	62.065
ILLINOIS	GRAND TOWER	09	4	4.6036	5.34	4.725	10.875	5.906	4.969
ILLINOIS	HENNEPIN	2	2	5.2461	5.162	14.729	38.015	18.411	19.604
ILLINOIS	JOPPA STEAM	1	1	3.3316	3.204	10.070	16.132	12.587	3.545
ILLINOIS	JOPPA STEAM	2	2	3.3099	3.204	8.614	13.799	10.767	3.032
ILLINOIS	JOPPA STEAM	3	3	3.3243	3.204	9.814	15.722	12.268	3.455
ILLINOIS	JOPPA STEAM	4	4	3.3273	3.204	9.090	14.562	11.363	3.200
ILLINOIS	JOPPA STEAM	5	5	3.3302	3.204	9.132	14.630	11.415	3.215
ILLINOIS	JOPPA STEAM	6	6	3.3113	3.204	8.493	13.606	10.617	2.990
ILLINOIS	KINCAID	1	1	6.4153	17.08	25.224	80.909	31.530	49.379
ILLINOIS	KINCAID	2	2	6.491	17.08	27.793	90.203	34.742	55.462
ILLINOIS	MEREDOSIA	05	3	4.6601	8.81	11.114	25.896	13.892	12.003
ILLINOIS	VERMILION	2	2	4.8057	5.34	7.106	17.076	8.883	8.193
INDIANA	BAILLY	7	7	5.5007	5.76	8.925	24.548	11.157	13.391
INDIANA	BAILLY	8	8	5.4372	5.76	12.746	34.651	15.933	18.719
INDIANA	BREED	1	1	7.2618	9.1872	14.796	53.724	18.495	35.228
INDIANA	CAYUGA	1	1	4.5025	5.5968	26.696	60.099	33.370	26.729
INDIANA	CAYUGA	2	2	4.5046	5.5968	27.300	61.488	34.125	27.363
INDIANA	CLIFTY CREEK	1	1	5.6079	7.2192	16.122	45.206	20.153	25.053
INDIANA	CLIFTY CREEK	2	2	5.6097	7.2192	15.852	44.461	19.814	24.647
INDIANA	CLIFTY CREEK	3	3	5.6052	7.2192	16.329	45.764	20.411	25.352
INDIANA	CLIFTY CREEK	4	4	5.61	7.2192	16.063	45.057	20.079	24.978
INDIANA	CLIFTY CREEK	5	5	5.6116	7.2192	15.487	43.454	19.359	24.095
INDIANA	CLIFTY CREEK	6	6	5.6103	7.2192	16.301	45.727	20.377	25.351
INDIANA	ELMER W STOUT	50	5	3.3679	5.088	3.107	5.232	3.884	1.348
INDIANA	ELMER W STOUT	60	6	3.3782	5.088	3.818	6.449	4.773	1.677
INDIANA	ELMER W STOUT	70	7	3.3778	5.088	18.886	31.896	23.607	8.289
INDIANA	F B CULLEY	2	2	5.6761	5.76	3.263	9.261	4.079	5.182
INDIANA	F B CULLEY	3	3	5.6748	5.76	13.576	38.522	16.971	21.551
INDIANA	FRANK E RATTS	1SG1	1	5.1699	5.76	6.667	17.233	8.333	8.900
INDIANA	FRANK E RATTS	2SG1	2	5.1699	5.76	6.788	17.545	8.484	9.061
INDIANA	GIBSON	1	1	4.4881	4.896	32.317	72.520	40.396	32.124
INDIANA	GIBSON	2	2	4.4902	4.896	32.805	73.650	41.006	32.644
INDIANA	GIBSON	3	3	4.4841	4.896	32.861	73.677	41.077	32.600
INDIANA	GIBSON	4	4	4.4835	4.896	32.258	72.315	40.323	31.992
INDIANA	H T PRITCHARD	6	6	3.7899	5.76	4.614	8.744	5.768	2.976
INDIANA	MICHIGAN CITY	12	12	5.1254	5.088	18.649	47.442	23.311	24.131
INDIANA	PETERSBURG	1	ST1	3.8922	5.76	13.148	25.587	16.435	9.152
INDIANA	PETERSBURG	2	ST2	3.8965	5.76	25.906	50.472	32.383	18.089
INDIANA	R GALLAGHER	1	1	5.4015	5.76	5.396	14.573	6.745	7.828
INDIANA	R GALLAGHER	2	2	5.4187	5.76	5.823	15.777	7.279	8.498

ATTACHMENT A-- PHASE I RESERVE CALCULATIONS (THOUSAND TONS)

CASE 1:  
1985 NADB Baseline

State	Plant	BLR	GEN	1985 RATE	ANN. LIMIT	CASE 1: 1985 NADB Baseline		CASE 1: RATE/LIMIT-2.5	
						ADJUSTED BASELINE	BASELINE x MIN OF RATE, LIMIT	BASELINE x 2.5	RATE/LIMIT x BASELINE
OHIO	CONESVILLE	1	1	4.7281	5.4336	3.366	7.957	4.207	3.750
OHIO	CONESVILLE	2	2	4.7287	5.4336	3.915	9.257	4.894	4.363
OHIO	CONESVILLE	3	3	4.7284	5.4336	4.396	10.394	5.495	4.898
OHIO	CONESVILLE	4	4	4.875	5.4336	39.016	95.103	48.771	46.332
OHIO	EASTLAKE	1	1	4.7796	5.4144	6.243	14.920	7.804	7.116
OHIO	EASTLAKE	2	2	4.7806	5.4144	6.909	16.516	8.637	7.879
OHIO	EASTLAKE	3	3	4.7815	5.4144	8.014	19.158	10.017	9.141
OHIO	EASTLAKE	4	4	4.7937	5.4144	11.610	27.827	14.512	13.315
OHIO	EASTLAKE	5	5	4.8324	5.4144	30.806	74.432	38.507	35.925
OHIO	EDGEWATER	13	4	2.6159	3.264	4.043	5.288	5.054	0.234
OHIO	GEN J M GAVIN	1	1	6.0173	7.1136	63.261	190.330	79.076	111.254
OHIO	GEN J M GAVIN	2	2	6.0365	7.1136	64.446	194.514	80.558	113.957
OHIO	KYGER CREEK	1	1	5.7582	7.872	15.427	44.417	19.284	25.133
OHIO	KYGER CREEK	2	2	5.7594	7.872	14.849	42.761	18.561	24.200
OHIO	KYGER CREEK	3	3	5.7567	7.872	14.328	41.241	17.910	23.331
OHIO	KYGER CREEK	4	4	5.7583	7.872	14.968	43.095	18.710	24.385
OHIO	KYGER CREEK	5	5	5.7568	7.872	14.995	43.162	18.744	24.418
OHIO	MIAMI FORT	5-1	5	3.9605	4.8	9.107	18.034	11.384	6.650
OHIO	MIAMI FORT	5-2	5	4.1054	5.28	30.809	63.242	38.511	24.730
OHIO	MIAMI FORT	6	6	3.0054	4.8	0.265	0.399	0.332	0.067
OHIO	MIAMI FORT	7	7	0	4.8	0.265	0.000	0.332	-0.332
OHIO	MUSKINGUM RIVER	1	1	7.5259	6.2016	11.901	36.901	14.876	22.026
OHIO	MUSKINGUM RIVER	2	2	7.5266	6.2016	11.334	35.143	14.167	20.976
OHIO	MUSKINGUM RIVER	3	3	7.5196	6.2016	11.163	34.613	13.953	20.660
OHIO	MUSKINGUM RIVER	4	4	7.5183	6.2016	9.421	29.213	11.776	17.437
OHIO	MUSKINGUM RIVER	5	5	7.4022	6.2016	32.372	100.379	40.465	59.914
OHIO	NILES	1	1	5.1714	5.472	5.555	14.364	6.944	7.420
OHIO	NILES	2	2	5.1885	5.472	7.279	18.882	9.098	9.784
OHIO	PICWAY	9	5	6.2045	9.504	3.947	12.244	4.934	7.311
OHIO	R E BURGER	5	3	5.0273	8.6592	2.465	6.197	3.081	3.115
OHIO	R E BURGER	6	3	5.0336	8.6592	2.457	6.185	3.072	3.113
OHIO	R E BURGER	7	4	5.1885	8.6592	8.623	22.369	10.778	11.591
OHIO	R E BURGER	8	5	5.2056	8.6592	9.945	25.884	12.431	13.453
OHIO	W H SAMMIS	5	5	3.4911	4.2816	19.333	33.747	24.166	9.581
OHIO	W H SAMMIS	6	6	3.4937	4.2816	37.017	64.664	46.272	18.392
OHIO	W H SAMMIS	7	7	3.64	4.2816	34.579	62.934	43.224	19.710
OHIO	WALTER C BECKJORD	5	5	4.1367	6.8928	7.157	14.803	8.946	5.857
OHIO	WALTER C BECKJORD	6	6	4.1192	6.8928	18.413	37.924	23.017	14.907
PENNSYLVANIA	ARMSTRONG	1	1	2.812	3.552	11.530	16.211	14.412	1.799
PENNSYLVANIA	ARMSTRONG	2	2	2.8126	3.552	12.345	17.361	15.432	1.930
PENNSYLVANIA	BRUNNER ISLAND	1	1	2.7682	3.56	22.210	30.741	27.762	2.978
PENNSYLVANIA	BRUNNER ISLAND	2	2	2.7682	3.56	24.883	34.440	31.103	3.337
PENNSYLVANIA	BRUNNER ISLAND	3	3	2.7682	3.56	43.059	59.599	53.824	5.774
PENNSYLVANIA	CHESWICK	1	1	2.5869	2.492	31.334	39.042	39.168	-0.125
PENNSYLVANIA	CONEMAUGH	1	1	3.5331	3.56	48.124	85.013	60.155	24.858
PENNSYLVANIA	CONEMAUGH	2	2	3.5456	3.56	53.342	94.565	66.678	27.887
PENNSYLVANIA	HATFIELD'S FERRY	1	1	3.3774	3.56	30.262	51.103	37.827	13.276
PENNSYLVANIA	HATFIELD'S FERRY	2	2	3.3837	3.56	29.859	50.517	37.323	13.193
PENNSYLVANIA	HATFIELD'S FERRY	3	3	3.3808	3.56	32.215	54.456	40.268	14.187
PENNSYLVANIA	MARTINS CREEK	1	1	2.7175	3.56	10.125	13.758	12.656	1.101
PENNSYLVANIA	MARTINS CREEK	2	2	2.7175	3.56	10.257	13.936	12.821	1.115
PENNSYLVANIA	PORTLAND	1	1	2.9801	3.56	4.751	7.079	5.938	1.140
PENNSYLVANIA	PORTLAND	2	2	2.9366	3.56	8.188	12.022	10.235	1.787
PENNSYLVANIA	SHAWVILLE	1	1	3.1918	3.56	8.217	13.113	10.271	2.842
PENNSYLVANIA	SHAWVILLE	2	2	3.1751	3.56	8.266	13.123	10.333	2.790
PENNSYLVANIA	SHAWVILLE	3	3	3.169	3.56	11.339	17.966	14.174	3.793
PENNSYLVANIA	SHAWVILLE	4	4	3.164	3.56	11.262	17.817	14.078	3.739
PENNSYLVANIA	SUNBURY	1A	3	2.7482	3.56	3.079	4.231	3.849	0.382
PENNSYLVANIA	SUNBURY	1B	3	2.7481	3.56	9.740	13.384	12.176	1.208
PENNSYLVANIA	SUNBURY	2A	3	2.5662	3.56	1.400	1.796	1.750	0.046
PENNSYLVANIA	SUNBURY	2B	3	2.5662	3.56	1.399	1.796	1.749	0.046
PENNSYLVANIA	SUNBURY	3	3	2.5662	3.56	1.400	1.796	1.750	0.046
PENNSYLVANIA	SUNBURY	4	4	2.5662	3.56	1.400	1.796	1.750	0.046
TENNESSEE	ALLEN	1	1	3.5442	3.56	12.258	21.723	15.323	6.400
TENNESSEE	ALLEN	2	2	3.6278	3.56	13.415	23.879	16.769	7.110
TENNESSEE	ALLEN	3	3	3.5827	3.56	12.533	22.309	15.666	6.643
TENNESSEE	CUMBERLAND	1	1	4.7087	4.45	69.360	154.325	86.699	67.626
TENNESSEE	CUMBERLAND	2	2	4.7325	4.45	75.872	168.815	94.840	73.975
TENNESSEE	GALLATIN	1	1	4.3909	4.45	14.108	30.973	17.635	13.338
TENNESSEE	GALLATIN	2	2	4.3254	4.45	13.847	29.946	17.308	12.638
TENNESSEE	GALLATIN	3	3	4.3701	4.45	16.018	35.000	20.023	14.978
TENNESSEE	GALLATIN	4	4	4.3738	4.45	17.006	37.191	21.258	15.933
TENNESSEE	JOHNSONVILLE	1	1	3.023	3.026	6.231	9.418	7.789	1.629
TENNESSEE	JOHNSONVILLE	10	10	3.0122	3.026	6.429	9.683	8.036	1.646
TENNESSEE	JOHNSONVILLE	2	2	3.005	3.026	6.729	10.110	8.411	1.699
TENNESSEE	JOHNSONVILLE	3	3	3.0216	3.026	6.388	9.651	7.985	1.666
TENNESSEE	JOHNSONVILLE	4	4	3.0063	3.026	6.589	9.905	8.237	1.668
TENNESSEE	JOHNSONVILLE	5	5	2.9749	3.026	6.315	9.394	7.894	1.500
TENNESSEE	JOHNSONVILLE	6	6	2.9691	3.026	7.182	10.662	8.977	1.684

**Attachment B:  
Phase I Reserve Calculations  
1995 Utilization -- EPA High Base Case**

ATTACHMENT B -- PHASE I RESERVE CALCULATIONS(THOUSAND TONS)

						CASE 2: 1995 EPA HIGH BASE CASE			
State	Plant	BLR	GEN	1985 RATE	ANN. LIMIT	1995 EPA HIGH BASELINE	BASELINE	CASE 2:	
						BASE CASE	x MIN OF	RATE/LIMIT	x 2.5
INDIANA	R GALLAGHER	3	3	5.4199	5.76	9.7	26.287	12.125	14.162
INDIANA	R GALLAGHER	4	4	5.4269	5.76	9.7	26.320	12.125	14.195
INDIANA	TANNERS CREEK	U4	4	5.6091	7.968	28.2	79.088	35.250	43.838
INDIANA	WABASH RIVER	1	1	3.7661	3.8784	4.1	7.721	5.125	2.596
INDIANA	WABASH RIVER	2	2	3.7713	3.8784	4.1	7.731	5.125	2.606
INDIANA	WABASH RIVER	3	3	3.764	3.8784	4.1	7.716	5.125	2.591
INDIANA	WABASH RIVER	5	5	3.7744	3.8784	4.5	8.492	5.625	2.867
INDIANA	WABASH RIVER	6	6	3.7857	3.8784	15.2	28.771	19.000	9.771
INDIANA	WARRICK	4	4	5.8668	5.76	14.3	41.184	17.875	23.309
IOWA	BURLINGTON	1	1	4.8274	5.34	10.6	25.585	13.250	12.335
IOWA	DES MOINES	1	7	3.5802	4.45	1.5	2.685	1.875	0.810
IOWA	GEORGE NEAL	1	1	2.9635	5	1.0	1.482	1.250	0.232
IOWA	MILTON L KAPP	2	2	5.2991	5.34	7.7	20.402	9.625	10.777
IOWA	PRAIRIE CREEK	4	4	3.9545	5.34	1.9	3.757	2.375	1.382
IOWA	RIVERSIDE	9	5	4.4999	5.34	6.0	13.500	7.500	6.000
KANSAS	QUINDARO	2	ST2	4.2728	2.67	7.5	10.013	9.375	0.638
KENTUCKY	COLEMAN	C1	1	3.8024	4.628	7.6	14.449	9.500	4.949
KENTUCKY	COLEMAN	C2	2	3.7305	4.628	7.6	14.176	9.500	4.676
KENTUCKY	COLEMAN	C3	3	3.783	4.628	7.9	14.943	9.875	5.068
KENTUCKY	COOPER	1	1	2.7418	2.937	8.0	10.967	10.000	0.967
KENTUCKY	COOPER	2	2	2.7846	2.937	15.4	21.441	19.250	2.191
KENTUCKY	E W BROWN	1	1	3.201	5.34	5.8	9.283	7.250	2.033
KENTUCKY	E W BROWN	2	2	3.2012	5.34	8.6	13.765	10.750	3.015
KENTUCKY	E W BROWN	3	3	3.2012	5.34	21.3	34.093	26.625	7.468
KENTUCKY	ELMER SMITH	1	1	5.1412	5.34	7.7	19.794	9.625	10.169
KENTUCKY	ELMER SMITH	2	2	5.2396	5.34	13.4	35.105	16.750	18.355
KENTUCKY	GHENT	1	1	5.4423	5.0463	27.2	68.630	34.000	34.630
KENTUCKY	GREEN RIVER	5	4	3.5776	4.0673	4.2	7.513	5.250	2.263
KENTUCKY	H L SPURLOCK	1	1	3.4829	5.34	19.8	34.481	24.750	9.731
KENTUCKY	HMP&L STATION 2	H1	1	4.1466	4.628	7.9	16.379	9.875	6.504
KENTUCKY	HMP&L STATION 2	H2	2	4.1464	4.628	8.2	17.000	10.250	6.750
KENTUCKY	PARADISE	3	3	4.7975	5.073	53.6	128.573	67.000	61.573
KENTUCKY	SHAWNEE	10	10	6.0228	1.116	4.4	2.455	5.500	-3.045
MARYLAND	C P CRANE	1	1	3.1018	3.115	11.8	18.301	14.750	3.551
MARYLAND	C P CRANE	2	2	3.0964	3.115	11.8	18.269	14.750	3.519
MARYLAND	CHALK POINT	1	ST1	2.4985	3.115	22.2	27.733	27.750	-0.017
MARYLAND	CHALK POINT	2	ST2	2.5413	3.115	22.2	28.208	27.750	0.458
MARYLAND	MORGANTOWN	1	ST1	2.6631	3.115	32.2	42.876	40.250	2.626
MARYLAND	MORGANTOWN	2	ST2	2.6311	3.115	32.2	42.361	40.250	2.111
MICHIGAN	J H CAMPBELL	1	1	3.5048	4.3432	16.0	28.038	20.000	8.038
MICHIGAN	J H CAMPBELL	2	2	3.5032	4.3432	17.8	31.178	22.250	8.928
MINNESOTA	HIGH BRIDGE	12	6	2.5571	2.88	11.3	14.448	14.125	0.323
MISSISSIPPI	JACK WATSON	4	4	3.4701	4.272	13.4	23.250	16.750	6.500
MISSISSIPPI	JACK WATSON	5	5	3.29	4.272	29.4	48.363	36.750	11.613
MISSOURI	ASBURY	1	1	10.1751	10.68	15.3	77.840	19.125	58.715
MISSOURI	JAMES RIVER	5	5	5.8773	8.188	5.8	17.044	7.250	9.794
MISSOURI	LABADIE	1	1	4.3282	4.272	33.4	71.342	41.750	29.592
MISSOURI	LABADIE	2	2	4.3329	4.272	33.4	71.342	41.750	29.592
MISSOURI	LABADIE	3	3	4.3354	4.272	33.4	71.342	41.750	29.592
MISSOURI	LABADIE	4	4	4.3132	4.272	33.4	71.342	41.750	29.592
MISSOURI	MONTROSE	1	1	8.6342	11.481	11.9	51.373	14.875	36.498
MISSOURI	MONTROSE	2	2	8.4137	11.481	11.9	50.062	14.875	35.187
MISSOURI	MONTROSE	3	3	8.4834	11.481	11.9	50.476	14.875	35.601
MISSOURI	NEW MADRID	1	1	5.9262	8.9	37.2	110.227	46.500	63.727
MISSOURI	NEW MADRID	2	2	6.0171	8.9	37.2	111.918	46.500	65.418
MISSOURI	SIBLEY	3	3	5.7098	8.01	23.8	67.947	29.750	38.197
MISSOURI	SIoux	1	1	4.5865	4.272	28.0	59.808	35.000	24.808
MISSOURI	SIoux	2	2	4.5744	4.272	28.0	59.808	35.000	24.808
MISSOURI	THOMAS HILL	MB1	1	7.5541	7.12	11.5	40.940	14.375	26.565
MISSOURI	THOMAS HILL	MB2	2	7.5374	7.12	18.6	66.216	23.250	42.966
NEW HAMPSHIRE	MERRIMACK	1	1	3.5719	4	6.7	11.966	8.375	3.591
NEW HAMPSHIRE	MERRIMACK	2	2	3.5824	4	19.1	34.212	23.875	10.337
NEW JERSEY	B L ENGLAND	1	1	3.8979	5.5776	7.9	15.397	9.875	5.522
NEW JERSEY	B L ENGLAND	2	2	4.043	5.5776	9.8	19.811	12.250	7.561
NEW YORK	DUNKIRK	3	3	3.0689	3.8	10.6	16.265	13.250	3.015
NEW YORK	DUNKIRK	4	ST4	3.0136	3.8	10.3	15.520	12.875	2.645
NEW YORK	GREENIDGE	6	4	3.2948	3.8	7.1	11.697	8.875	2.822
NEW YORK	MILLIKEN	1	1	3.0288	3.8	10.7	16.204	13.375	2.829
NEW YORK	MILLIKEN	2	2	3.0167	3.8	10.8	16.290	13.500	2.790
NEW YORK	NORTHPORT	1	ST1	2.6563	2.996	27.4	36.391	34.250	2.141
NEW YORK	NORTHPORT	2	2	2.6451	2.996	27.4	36.238	34.250	1.988
NEW YORK	NORTHPORT	3	3	2.6579	2.996	27.6	36.679	34.500	2.179
NEW YORK	PORT JEFFERSON	3	3	2.6505	2.996	13.9	18.421	17.375	1.046
NEW YORK	PORT JEFFERSON	4	4	2.6994	2.996	14.0	18.896	17.500	1.396
OHIO	ASHTABULA	7	5	6.6461	8.736	15.0	49.846	18.750	31.096
OHIO	AVON LAKE	11	8	4.0299	4.464	0.0	0.000	0.000	0.000
OHIO	AVON LAKE	12	9	4.0462	4.464	30.4	61.502	38.000	23.502
OHIO	CARDINAL	1	1	5.3368	6.7968	32.4	86.456	40.500	45.956
OHIO	CARDINAL	2	2	5.2724	6.7968	32.7	86.204	40.875	45.329



ATTACHMENT B -- PHASE I RESERVE CALCULATIONS(THOUSAND TONS)

					CASE 2: 1995 EPA HIGH BASE CASE				
State	Plant	BLR	GEN	1985 RATE	ANN. LIMIT	1995 EPA HIG BASELINE		CASE 2:	
						BASE CASE BASELINE	x MIN OF RATE, LIMIT	BASELINE x 2.5	RATE/LIMIT-2.5 x BASELINE
TENNESSEE	JOHNSONVILLE	7	7	2.9806	3.026	5.7	8.495	7.125	1.370
TENNESSEE	JOHNSONVILLE	8	8	2.9558	3.026	5.7	8.424	7.125	1.299
TENNESSEE	JOHNSONVILLE	9	9	3.0184	3.026	5.7	8.602	7.125	1.477
WEST VIRGINIA	ALBRIGHT	3	3	3.2217	2.848	9.4	13.386	11.750	1.636
WEST VIRGINIA	FORT MARTIN	1	1	2.808	2.759	33.8	46.627	42.250	4.377
WEST VIRGINIA	FORT MARTIN	2	2	2.808	2.759	34.0	46.903	42.500	4.403
WEST VIRGINIA	HARRISON	1	1	4.35	4.5568	37.0	80.475	46.250	34.225
WEST VIRGINIA	HARRISON	2	2	4.35	4.5568	37.0	80.475	46.250	34.225
WEST VIRGINIA	HARRISON	3	3	4.35	4.5568	37.0	80.475	46.250	34.225
WEST VIRGINIA	KAMMER	1	1	7.5126	7.89	12.2	45.827	15.250	30.577
WEST VIRGINIA	KAMMER	2	2	7.5136	7.89	12.2	45.833	15.250	30.583
WEST VIRGINIA	KAMMER	3	3	7.5132	7.89	12.2	45.831	15.250	30.581
WEST VIRGINIA	MITCHELL	1	1	2.6007	12	47.0	61.116	58.750	2.366
WEST VIRGINIA	MITCHELL	2	2	2.6021	12	47.0	61.149	58.750	2.399
WEST VIRGINIA	MT STORM	1	1	2.8669	4.097	34.5	49.454	43.125	6.329
WEST VIRGINIA	MT STORM	2	2	2.866	4.097	34.5	49.439	43.125	6.314
WEST VIRGINIA	MT STORM	3	3	2.856	4.097	34.0	48.552	42.500	6.052
WISCONSIN	EDGEWATER	4	4	4.2714	99.9	15.9	33.958	19.875	14.083
WISCONSIN	GENOA	81	ST3	3.9697	99.9	19.3	38.308	24.125	14.183
WISCONSIN	NELSON DEWEY	1	1	4.6204	99.9	5.9	13.630	7.375	6.255
WISCONSIN	NELSON DEWEY	2	2	4.8344	99.9	5.7	13.778	7.125	6.653
WISCONSIN	NORTH OAK CREEK	1	1	3.7951	99.9	0.0	0.000	0.000	0.000
WISCONSIN	NORTH OAK CREEK	2	2	3.9127	99.9	0.0	0.000	0.000	0.000
WISCONSIN	NORTH OAK CREEK	3	3	3.8921	99.9	0.0	0.000	0.000	0.000
WISCONSIN	NORTH OAK CREEK	4	4	3.8806	99.9	0.0	0.000	0.000	0.000
WISCONSIN	PULLIAM	8	8	3.9001	99.9	6.5	12.675	8.125	4.550
WISCONSIN	SOUTH OAK CREEK	5	5	3.9038	99.9	11.4	22.252	14.250	8.002
WISCONSIN	SOUTH OAK CREEK	6	6	3.7652	99.9	11.4	21.462	14.250	7.212
WISCONSIN	SOUTH OAK CREEK	7	7	3.9218	99.9	13.6	26.668	17.000	9.668
WISCONSIN	SOUTH OAK CREEK	8	8	3.9044	99.9	13.6	26.550	17.000	9.550
TOTALS:						4,610.20	9,634.65	5,762.75	3,871.90

ATTACHMENT C -- PHASE I RESERVE CALCULATIONS(THOUSAND TONS)

					CASE 3: 1995 EPA LOW BASE CASE				
State	Plant	BLR	GEN	1985 RATE	ANN. LIMIT	1995 EPA LOW BASE CASE BASELINE	BASELINE X MIN OF RATE, LIMIT	BASELINE X 2.5	CASE 3: RATE/LIMIT-2.5 X BASELINE
ALABAMA	COLBERT	1	1	3.8348	3.56	12.9	22.962	16.125	6.837
ALABAMA	COLBERT	2	2	3.8352	3.56	12.9	22.962	16.125	6.837
ALABAMA	COLBERT	3	3	3.8348	3.56	12.9	22.962	16.125	6.837
ALABAMA	COLBERT	4	4	3.8324	3.56	12.9	22.962	16.125	6.837
ALABAMA	COLBERT	5	5	3.816	3.56	30.2	53.756	37.750	16.006
ALABAMA	E C GASTON	1	1	2.7234	3.68	13.2	17.974	16.500	1.474
ALABAMA	E C GASTON	2	2	2.7235	3.68	13.2	17.975	16.500	1.475
ALABAMA	E C GASTON	3	3	2.7235	3.68	13.2	17.975	16.500	1.475
ALABAMA	E C GASTON	4	ST4	2.7235	3.68	11.9	16.205	14.875	1.330
ALABAMA	E C GASTON	5	5	2.7578	3.68	44.0	60.672	55.000	5.672
FLORIDA	BIG BEND	BB01	1	4.7513	5.785	21.4	50.839	26.750	24.089
FLORIDA	BIG BEND	BB02	ST2	4.7803	5.785	21.4	51.149	26.750	24.399
FLORIDA	BIG BEND	BB03	ST3	3.3348	5.785	21.4	35.682	26.750	8.932
FLORIDA	CRIST	6	6	4.5301	5.251	17.5	39.638	21.875	17.763
FLORIDA	CRIST	7	7	4.5118	5.251	26.3	59.330	32.875	26.455
GEORGIA	BOWEN	1BLR	1	3.0225	4.4322	42.0	63.473	52.500	10.973
GEORGIA	BOWEN	2BLR	2	3.0225	4.4322	41.9	63.321	52.375	10.946
GEORGIA	BOWEN	3BLR	3	3.0225	4.4322	52.5	79.341	65.625	13.716
GEORGIA	BOWEN	4BLR	4	3.0225	4.4322	52.5	79.341	65.625	13.716
GEORGIA	HAMMOND	1	1	2.6164	4.4322	5.6	7.326	7.000	0.326
GEORGIA	HAMMOND	2	2	2.6161	4.4322	5.6	7.325	7.000	0.325
GEORGIA	HAMMOND	3	3	2.6161	4.4322	5.4	7.063	6.750	0.313
GEORGIA	HAMMOND	4	4	2.6163	4.4322	20.5	26.817	25.625	1.192
GEORGIA	JACK MCDONOUGH	MB1	1	3.9602	4.4322	14.9	29.503	18.625	10.878
GEORGIA	JACK MCDONOUGH	MB2	2	3.9722	4.4322	14.9	29.593	18.625	10.968
GEORGIA	WANSLEY	1	1	4.5914	4.4322	50.9	112.799	63.625	49.174
GEORGIA	WANSLEY	2	2	4.5914	4.4322	50.9	112.799	63.625	49.174
GEORGIA	YATES	Y1BR	1	3.6889	4.4322	5.6	10.329	7.000	3.329
GEORGIA	YATES	Y2BR	2	3.6887	4.4322	5.8	10.697	7.250	3.447
GEORGIA	YATES	Y3BR	3	3.6888	4.4322	5.8	10.698	7.250	3.448
GEORGIA	YATES	Y4BR	4	3.6889	4.4322	7.2	13.280	9.000	4.280
GEORGIA	YATES	Y5BR	5	3.6888	4.4322	7.2	13.280	9.000	4.280
GEORGIA	YATES	Y6BR	6	3.6888	4.4322	18.3	33.753	22.875	10.878
GEORGIA	YATES	Y7BR	7	3.6888	4.4322	18.3	33.753	22.875	10.878
ILLINOIS	BALDWIN	1	1	5.221	5.34	27.6	72.050	34.500	37.550
ILLINOIS	BALDWIN	2	2	5.2186	5.34	27.6	72.017	34.500	37.517
ILLINOIS	BALDWIN	3	3	5.2186	5.34	27.6	72.017	34.500	37.517
ILLINOIS	COFFEEN	01	1	6.7713	11.82	14.8	50.108	18.500	31.608
ILLINOIS	COFFEEN	02	2	6.8505	11.82	23.8	81.521	29.750	51.771
ILLINOIS	GRAND TOWER	09	4	4.6036	5.34	5.1	11.739	6.375	5.364
ILLINOIS	HENNEPIN	2	2	5.2461	5.162	10.7	27.617	13.375	14.242
ILLINOIS	JOPPA STEAM	1	1	3.3316	3.204	7.5	12.015	9.375	2.640
ILLINOIS	JOPPA STEAM	2	2	3.3099	3.204	7.5	12.015	9.375	2.640
ILLINOIS	JOPPA STEAM	3	3	3.3243	3.204	7.5	12.015	9.375	2.640
ILLINOIS	JOPPA STEAM	4	4	3.3273	3.204	7.5	12.015	9.375	2.640
ILLINOIS	JOPPA STEAM	5	5	3.3302	3.204	7.5	12.015	9.375	2.640
ILLINOIS	JOPPA STEAM	6	6	3.3113	3.204	7.5	12.015	9.375	2.640
ILLINOIS	KINCAID	1	1	6.4153	17.08	30.6	98.154	38.250	59.904
ILLINOIS	KINCAID	2	2	6.491	17.08	30.6	99.312	38.250	61.062
ILLINOIS	MEREDOSIA	05	3	4.6601	8.81	10.7	24.932	13.375	11.557
ILLINOIS	VERMILION	2	2	4.8057	5.34	5.2	12.495	6.500	5.995
INDIANA	BAILLY	7	7	5.5007	5.76	6.5	17.877	8.125	9.752
INDIANA	BAILLY	8	8	5.4372	5.76	13.0	35.342	16.250	19.092
INDIANA	BREED	1	1	7.2618	9.1872	22.9	83.148	28.625	54.523
INDIANA	CAYUGA	1	1	4.5025	5.5968	16.0	36.020	20.000	16.020
INDIANA	CAYUGA	2	2	4.5046	5.5968	15.6	35.136	19.500	15.636
INDIANA	CLIFTY CREEK	1	1	5.6079	7.2192	14.6	40.938	18.250	22.688
INDIANA	CLIFTY CREEK	2	2	5.6097	7.2192	14.6	40.951	18.250	22.701
INDIANA	CLIFTY CREEK	3	3	5.6052	7.2192	14.5	40.638	18.125	22.513
INDIANA	CLIFTY CREEK	4	4	5.61	7.2192	15.4	43.197	19.250	23.947
INDIANA	CLIFTY CREEK	5	5	5.6116	7.2192	14.8	41.526	18.500	23.026
INDIANA	CLIFTY CREEK	6	6	5.6103	7.2192	14.8	41.516	18.500	23.016
INDIANA	ELMER W STOUT	50	5	3.3679	5.088	6.8	11.451	8.500	2.951
INDIANA	ELMER W STOUT	60	6	3.3782	5.088	6.8	11.486	8.500	2.986
INDIANA	ELMER W STOUT	70	7	3.3778	5.088	28.2	47.627	35.250	12.377
INDIANA	F B CULLEY	2	2	3.6761	5.76	3.0	8.514	3.750	4.764
INDIANA	F B CULLEY	3	3	5.6748	5.76	7.9	22.415	9.875	12.540
INDIANA	FRANK E RATTS	1SG1	1	5.1699	5.76	3.8	9.823	4.750	5.073
INDIANA	FRANK E RATTS	2SG1	2	5.1699	5.76	3.8	9.823	4.750	5.073
INDIANA	GIBSON	1	1	4.4881	4.896	31.7	71.136	39.625	31.511
INDIANA	GIBSON	2	2	4.4902	4.896	31.7	71.170	39.625	31.545
INDIANA	GIBSON	3	3	4.4841	4.896	31.7	71.073	39.625	31.448
INDIANA	GIBSON	4	4	4.4835	4.896	31.7	71.063	39.625	31.438
INDIANA	H T PRITCHARD	6	6	3.7899	5.76	3.1	5.874	3.875	1.999
INDIANA	MICHIGAN CITY	12	12	5.1254	5.088	28.1	71.486	35.125	36.361
INDIANA	PETERSBURG	1	ST1	3.8922	5.76	16.1	31.332	20.125	11.207
INDIANA	PETERSBURG	2	ST2	3.8965	5.76	28.9	56.304	36.125	20.179
INDIANA	R GALLAGHER	1	1	5.4015	5.76	9.7	26.197	12.125	14.072
INDIANA	R GALLAGHER	2	2	5.4187	5.76	9.7	26.281	12.125	14.156

ATTACHMENT C -- PHASE I RESERVE CALCULATIONS(THOUSAND TONS)

						CASE 3: 1995 EPA LOW BASE CASE			
State	Plant	BLR	GEN	1985 RATE	ANN. LIMIT	1995 EPA LOW	BASILINE	BASILINE	CASE 3:
						BASE CASE BASELINE	x MIN OF RATE, LIMIT	x 2.5	RATE/LIMIT-2.5 x BASELINE
OHIO	CONESVILLE	1	1	4.7281	5.4336	4.2	9.929	5.250	4.679
OHIO	CONESVILLE	2	2	4.7287	5.4336	4.2	9.930	5.250	4.680
OHIO	CONESVILLE	3	3	4.7284	5.4336	5.8	13.712	7.250	6.462
OHIO	CONESVILLE	4	4	4.875	5.4336	38.9	94.819	48.625	46.194
OHIO	EASTLAKE	1	1	4.7796	5.4144	7.2	17.207	9.000	8.207
OHIO	EASTLAKE	2	2	4.7806	5.4144	7.2	17.210	9.000	8.210
OHIO	EASTLAKE	3	3	4.7815	5.4144	7.2	17.213	9.000	8.213
OHIO	EASTLAKE	4	4	4.7937	5.4144	12.9	30.919	16.125	14.794
OHIO	EASTLAKE	5	5	4.8324	5.4144	30.4	73.452	38.000	35.452
OHIO	EDGEWATER	13	4	2.6159	3.264	3.3	4.316	4.125	0.191
OHIO	GEN J M GAVIN	1	1	6.0173	7.1136	70.9	213.313	88.625	124.688
OHIO	GEN J M GAVIN	2	2	6.0365	7.1136	70.9	213.994	88.625	125.369
OHIO	KYGER CREEK	1	1	5.7582	7.872	12.1	34.837	15.125	19.712
OHIO	KYGER CREEK	2	2	5.7594	7.872	11.7	33.692	14.625	19.067
OHIO	KYGER CREEK	3	3	5.7567	7.872	11.6	33.389	14.500	18.889
OHIO	KYGER CREEK	4	4	5.7583	7.872	11.7	33.686	14.625	19.061
OHIO	KYGER CREEK	5	5	5.7568	7.872	11.9	34.253	14.875	19.378
OHIO	MIAMI FORT	5-1	5	3.9605	4.8	2.9	5.743	3.625	2.118
OHIO	MIAMI FORT	5-2	5	4.1054	5.28	0.0	0.000	0.000	0.000
OHIO	MIAMI FORT	6	6	3.0054	4.8	5.9	8.866	7.375	1.491
OHIO	MIAMI FORT	7	7	0	4.8	24.9	0.000	31.125	-31.125
OHIO	MUSKINGUM RIVER	1	1	7.5259	6.2016	7.9	24.496	9.875	14.621
OHIO	MUSKINGUM RIVER	2	2	7.5266	6.2016	7.9	24.496	9.875	14.621
OHIO	MUSKINGUM RIVER	3	3	7.5196	6.2016	8.6	26.667	10.750	15.917
OHIO	MUSKINGUM RIVER	4	4	7.5183	6.2016	8.6	26.667	10.750	15.917
OHIO	MUSKINGUM RIVER	5	5	7.4022	6.2016	31.9	98.916	39.875	59.041
OHIO	NILES	1	1	5.1714	5.472	5.6	14.480	7.000	7.480
OHIO	NILES	2	2	5.1885	5.472	5.6	14.528	7.000	7.528
OHIO	PICWAY	9	2	6.2045	9.504	1.7	5.274	2.125	3.149
OHIO	R E BURGER	5	3	5.0273	8.6592	3.5	8.798	4.375	4.423
OHIO	R E BURGER	6	3	5.0336	8.6592	0.0	0.000	0.000	0.000
OHIO	R E BURGER	7	4	5.1885	8.6592	5.4	14.009	6.750	7.259
OHIO	R E BURGER	8	5	5.2056	8.6592	5.4	14.055	6.750	7.305
OHIO	W H SAMMIS	5	5	3.4911	4.2816	17.2	30.023	21.500	8.523
OHIO	W H SAMMIS	6	6	3.4937	4.2816	33.8	59.044	42.250	16.794
OHIO	W H SAMMIS	7	7	3.64	4.2816	33.8	61.516	42.250	19.266
OHIO	WALTER C BECKJORD	5	5	4.1367	6.8928	12.8	26.475	16.000	10.475
OHIO	WALTER C BECKJORD	6	6	4.1192	6.8928	21.6	44.487	27.000	17.487
PENNSYLVANIA	ARMSTRONG	1	1	2.812	3.552	11.0	15.466	13.750	1.716
PENNSYLVANIA	ARMSTRONG	2	2	2.8126	3.552	11.0	15.469	13.750	1.719
PENNSYLVANIA	BRUNNER ISLAND	1	1	2.7682	3.56	21.3	29.481	26.625	2.856
PENNSYLVANIA	BRUNNER ISLAND	2	2	2.7682	3.56	25.0	34.603	31.250	3.353
PENNSYLVANIA	BRUNNER ISLAND	3	3	2.7682	3.56	48.3	66.852	60.375	6.477
PENNSYLVANIA	CHESWICK	1	1	2.5869	2.492	28.6	35.636	35.750	-0.114
PENNSYLVANIA	CONEMAUGH	1	1	3.5331	3.56	47.2	83.381	59.000	24.381
PENNSYLVANIA	CONEMAUGH	2	2	3.5456	3.56	47.2	83.676	59.000	24.676
PENNSYLVANIA	HATFIELD'S FERRY	1	1	3.3774	3.56	34.0	57.416	42.500	14.916
PENNSYLVANIA	HATFIELD'S FERRY	2	2	3.3837	3.56	34.0	57.523	42.500	15.023
PENNSYLVANIA	HATFIELD'S FERRY	3	3	3.3808	3.56	30.6	51.726	38.250	13.476
PENNSYLVANIA	MARTINS CREEK	1	1	2.7175	3.56	9.3	12.636	11.625	1.011
PENNSYLVANIA	MARTINS CREEK	2	2	2.7175	3.56	9.3	12.636	11.625	1.011
PENNSYLVANIA	PORTLAND	1	1	2.9801	3.56	8.6	12.814	10.750	2.064
PENNSYLVANIA	PORTLAND	2	2	2.9366	3.56	13.3	19.528	16.625	2.903
PENNSYLVANIA	SHAWVILLE	1	1	3.1918	3.56	8.2	13.086	10.250	2.836
PENNSYLVANIA	SHAWVILLE	2	2	3.1751	3.56	8.2	13.018	10.250	2.768
PENNSYLVANIA	SHAWVILLE	3	3	3.169	3.56	8.9	14.102	11.125	2.977
PENNSYLVANIA	SHAWVILLE	4	4	3.164	3.56	8.9	14.080	11.125	2.955
PENNSYLVANIA	SUNBURY	1A	3	2.7482	3.56	0.0	0.000	0.000	0.000
PENNSYLVANIA	SUNBURY	1B	3	2.7481	3.56	0.0	0.000	0.000	0.000
PENNSYLVANIA	SUNBURY	2A	3	2.5662	3.56	0.0	0.000	0.000	0.000
PENNSYLVANIA	SUNBURY	2B	3	2.5662	3.56	0.0	0.000	0.000	0.000
PENNSYLVANIA	SUNBURY	3	3	2.5662	3.56	7.3	9.367	9.125	0.242
PENNSYLVANIA	SUNBURY	4	4	2.5662	3.56	9.9	12.703	12.375	0.328
TENNESSEE	ALLEN	1	1	3.5442	3.56	9.1	16.126	11.375	4.751
TENNESSEE	ALLEN	2	2	3.6278	3.56	9.1	16.198	11.375	4.823
TENNESSEE	ALLEN	3	3	3.5827	3.56	9.1	16.198	11.375	4.823
TENNESSEE	CUMBERLAND	1	1	4.7087	4.45	68.6	152.635	85.750	66.885
TENNESSEE	CUMBERLAND	2	2	4.7325	4.45	68.6	152.635	85.750	66.885
TENNESSEE	GALLATIN	1	1	4.3909	4.45	14.0	30.736	17.500	13.236
TENNESSEE	GALLATIN	2	2	4.3254	4.45	14.0	30.278	17.500	12.778
TENNESSEE	GALLATIN	3	3	4.3701	4.45	15.5	33.868	19.375	14.493
TENNESSEE	GALLATIN	4	4	4.3738	4.45	15.5	33.897	19.375	14.522
TENNESSEE	JOHNSONVILLE	1	1	3.026	3.026	3.0	4.535	3.750	0.785
TENNESSEE	JOHNSONVILLE	10	10	3.0122	3.026	3.7	5.573	4.625	0.948
TENNESSEE	JOHNSONVILLE	2	2	3.005	3.026	3.0	4.508	3.750	0.758
TENNESSEE	JOHNSONVILLE	3	3	3.0216	3.026	3.0	4.532	3.750	0.782
TENNESSEE	JOHNSONVILLE	4	4	3.0063	3.026	3.0	4.509	3.750	0.759
TENNESSEE	JOHNSONVILLE	5	5	2.9749	3.026	3.0	4.462	3.750	0.712
TENNESSEE	JOHNSONVILLE	6	6	2.9691	3.026	3.0	4.454	3.750	0.704