

RECEIVED

JAN 27 2006

PUBLIC SERVICE
COMMISSION

Kentucky Power Company

Snavely King Life Study

Production, Transmission, Distribution, and General Plant

Kentucky Power Company

Snavely King Life Study

Production, Transmission, Distribution, and General Plant

Description of Analysis Method

The SK actuarial model relies on the vintage date, activity date and the dollar value of plant transactions (i.e., additions, retirements, transfers, sales, and adjustments, etc.). The SPR model relies on the annual addition and retirement activity of the plant transactions. The information is determined from the data submitted in the Kentucky Power Company 12/31/2004 Depreciation Study and from its supporting documents.

Actuarial Analysis Program

The retirement rate method of actuarial analysis is a means to evaluate past experience for the purpose of determining life indications. It relies upon a compilation of plant mortality data *arranged so that the plant dollars (or units) and retired dollars (or units) can be identified by ages*. The plant dollars exposed at the start of each age year are termed exposures, the plant dollars at the end of that age year are the survivors, and the difference between the two is the plant dollars retired, or the retirements. These data are used to construct an observed life table (OLT) which is smoothed and extended by comparison to Iowa curves.

Iowa curves are standard curves empirically developed to describe the life characteristics of most industrial and utility property. They are used throughout the utility industry as well as other applications where life characteristics are sought.

There are 31 Iowa curves classified into L, R, S or O families, depending upon whether the highest point (mode) of the retirement frequency was left of, right of, or symmetrical to the curves average life. The mode of the O curves is at the origins. These curves are combined with varying average life assumptions and statistically compared to the OLT to obtain a "best fit" life for each curve, and then these results are ranked to obtain the best of the best fits.

Chapter VIII of the 1996 edition of the NARUC Public Utility Depreciation Practices manual provides an example of a retirement rate actuarial analysis stating with raw data and continuing through the best fit curve result. The NARUC example used aged mortality data as described above. Snavely King's retirement rate actuarial program was tailored upon the NARUC example. Snavely King's approach and program replicates the model contained in NARUC's 1996 Public Utility Depreciation Practices manual.

The actuarial program requires the analyst to determine the average service life upper and lower limits for the accounts being studied.

Industry statistics were taken from the source: AGA/EEI "A Survey of Depreciation Statistics," 1998-1999

Simulated Plant Record Analysis

The Simulated Plant Record (SPR) model requires determining the surviving balances for each vintage of plant equipment. This data was retrieved from studies and data submitted by the Company.

The SPR data was calculated by determining the plant balance, or survivors, from vintage additions and non-vintage retirements. This plant balance was used with each lowa curve to simulate retirements and corresponding aged balances. The properties of the simulated balances for each curve were ranked according to their ability to simulate the survivors for the account over the period selected. The algorithm for this method is as follows:

The annual additions and retirements determine the plant balances that are compared against the theoretical balances calculated from the 31 lowa curves. Each curve is rated and ranked according to how close it matches the actual plant balance. The lower the conformance index, the better the match between the theoretical and actual balance.

The SPR programs requires the analyst to determine the average service life upper and lower limits for the accounts being studied.

Industry statistics were taken from the source: AGA/EEI "A Survey of Depreciation Statistics," 1998-1999

Results

The actuarial model results provide a historical plant service life and curve that most closely represents the average of plant survivors for each account. The first step of the model provides the Observed Life Table or OLT. This shows exposures, retirements, retirement ratio, survival ratio and cumulative survivors. This OLT is a summary of historical plant mortality that shows experience bands of the plant data considered in the study. The cumulative survivor data may be truncated for aged data when the aged data shows discontinuity of small values as compared to the more recent plant activity. These cumulative survivors are fitted against the 31 lowa curves to determine the best curve and life of the plant data. The curve results, cumulative survivors, Company proposed and Company Current are plotted to provide a visual reference of the fitted curves.

The results of the SPR provide a statistical matching of actual plant balances to the balances of the best fitted life and curves. The life and curves are ranked from best to worse.

All results are analyzed and compared with the results submitted by Kentucky Power Company . If the result of Kentucky Power Company is in question (due to various factors including data responses, company study, actuarial data, industry statistics and related information), then Generation Arrangement calculations are performed to determine the average remaining life. The remaining life calculation for Kentucky Power Company uses the BG/VG (broad group/vintage group) methodology.

The average remaining life is then used as a factor in calculating the depreciation rate for the account.

Kentucky Power Company
SK Analysis of Proposed Lives and Survivor Curves
Production, Transmission, Distribution, and General Plant Summary 4/

ACCOUNT NO.	TITLE	ORIGINAL COST AT 12/31/04	Company Current		Company Proposed		SK Modeling Data Best Fit		SK Selection		ARL	Notes
			Life	Curve	Life	Curve	Life	Curve	Life	Curve		
			2/		3/		4/		5/	6/		
STEAM PRODUCTION PLANT												
BIG SANDY PLANT												
311.0	Structures & Improvements	36,149,758	FCST.		FCST.		100 - R2.5					
312.0	Boiler Plant Equipment	324,538,695	FCST.		FCST.		32 - R2.5					
314.0	Turbogenerator Units	73,038,983	FCST.		FCST.		39 - L2					
315.0	Accessory Electrical Equipment	13,742,601	FCST.		FCST.		67 - L2					
316.0	Misc. Power Plant Equip.	6,518,954	FCST.		FCST.		66 - L1					
	Total Steam Production Plant	453,988,991										
TRANSMISSION PLANT												
350.1	Land Rights	23,258,047	75 - R4.0		75 - R4.0		NA		75 - R4.0			
352.0	Structures & Improvements	6,387,065	55 - S1.5		55 - S3.0		55 - L4		55 - S3.0			
353.0	Station Equipment	123,153,116	50 - RO.5		40 - R1.5		41 - R2		40 - R1.5			
354.0	Towers & Fixtures	92,364,356	55 - R4.0		55 - R4.0		52 - R5		55 - R4.0			
355.0	Poles & Fixtures	37,506,208	45 - R3.0		35 - S6.0		39 - R3	*	39 - R3	28.0		accept due to lack of other disagreements
356.0	OH Conductor & Devices	100,355,481	50 - R3.0		50 - S6.0		51 - S6		50 - S6.0			
357.0	Underground Conduit	11,590	37 - R2.0		37 - R2.0		NA		37 - R2.0			lack of data
358.0	Underground Conductor	106,066	44 - R1.0		44 - R1.0		NA		44 - R1.0			lack of data
	Total Transmission Plant	383,141,929										
DISTRIBUTION PLANT												
360.1	Land Rights	3,691,802	75 - R4.0		75 - R4.0		NA		75 - R4.0			lack of data
361.0	Structures & Improvements	4,231,065	65 - LO.5		70 - L1.5		67 - S0.5		70 - L1.5			
362.0	Station Equipment	42,017,840	25 - LO.0		30 - R0.5		30 - R1		30 - R0.5			
364.0	Poles, Towers, & Fixtures	124,672,243	28 - LO.0		28 - R0.5		45 - O3		28 - R0.5			
365.0	Overhead Conductor & Devices	99,426,561	26 - R1.5		30 - R0.5		48 - O3		30 - R0.5			
366.0	Underground Conduit	2,959,899	37 - R2.0		50 - R1.0		96 - R1	*	74 - R1.5	64.5		Company moving from 37 to 50 ASL
367.0	Underground Conductor	5,482,068	44 - R1.0		53 - R0.5		64 - O1		53 - R0.5			
368.0	Line Transformers	84,185,422	25 - R1.5		29 - R0.5		47 - O3		29 - R0.5			
369.0	Services	31,239,944	18 - R2.0		22 - R0.5		43 - O4		22 - R0.5			

**Kentucky Power Company
SK Analysis of Proposed Lives and Survivor Curves
Production, Transmission, Distribution, and General Plant Summary 4/**

ACCOUNT		ORIGINAL COST AT	Company Current		Company Proposed		SK Modeling Data Best Fit		SK Selection		ARL	Notes
NO.	TITLE	12/31/04	Life	Curve	Life	Curve	Life	Curve	Life	Curve		
370.0	Meters	21,071,793	27	R0.5	20	R3.0	22	L1.5	20	R3.0	6/	
371.0	Installations on Custs. Prem.	15,598,882	11	LO.0	12	L0.0	22	O4	12	L0.0		
373.0	Street Lighting & Signal Sys.	<u>2,741,234</u>	15	LO.0	20	L0.0	35	O4	20	L0.0		
	Total Distribution Plant	<u>437,318,753</u>										
GENERAL PLANT												
389.2	Land Rights	84,011	75	R4.0	75	R4.0		NA	75	R4.0		lack of data
390.0	Structures & Improvements	19,295,997	45	L3.0	25	L2.0	22	R3	25	L2.0		
391.0	Office Furniture & Equipment	1,737,579	35	R0.5	35	R0.5	41	O2	35	R0.5		
392.0	Transportation Equipment	5,819	30	R3.0	30	R3.0	17	SQ	30	R3.0		- only a 2001 investment left in account
393.0	Stores Equipment	189,262	30	R1.0	30	L0.0	29	L0	30	L0.0		
394.0	Tools Shop & Garage Equipment	1,711,318	30	RO.5	32	L0.0	39	O2	32	L0.0		
395.0	Laboratory Equipment	394,394	30	L5.0	32	S5.0	36	R3	32	S5.0		
396.0	Power Operated Equipment	5,931	-		8	8 SQ		NA	8	8 SQ		lack of data
397.0	Communication Equipment	4,666,769	22	L3.0	19	S6.0	20	R4	19	S6.0		
398.0	Miscellaneous Equipment	<u>584,684</u>	20	S5.0	19	L2.0	16	L2	19	L2.0		
	Total General Plant	<u>28,675,764</u>										
	Total Depreciable Plant	<u>1,303,125,437</u>										

1/ Excel file -> Other Depreciation Schedules/Schedule1 KPNewRates.xls
 2/ Excel file -> Other Depreciation Schedules/Schedule III KPMortality Compare.xls
 3/ Excel file -> Other Depreciation Schedules/Schedule1 KPNewRates.xls
 4/ SK Statistical Modeling - Company Data from 2004 Company Depreciation Study [Account].dat files
 5/ SK Analysis - Based on observations of Company depreciation data, Company depreciation study(ies), Company responses to questions, and Snavely King analyses
 6/ Broad Group/Vintage Group (BG/VG) calculations based on SK selection.

* Snavely King Analysis shows a different Life and Curve then the Company Proposal. Snavely King's selection in its testimony may be different then this analysis based on other factors that may not be included in this life analysis.

**KENTUCKY POWER COMPANY
CALCULATED AVERAGE LIFE
STEAM PRODUCTION PLANT - SNAVELY KING RECOMMENDATIONS**

<u>ACCOUNT</u> (1)	<u>PLANT BALANCE</u> <u>AT 12-31-04</u> (2)	<u>AVERAGE</u> <u>AGE</u> (3)	<u>AVERAGE</u> <u>REM. LIFE</u> (4)	<u>AVERAGE</u> <u>LIFE</u> (5)=(3)+(4)
BIG SANDY				
311	36,149,758	26.08	28.06	54.14
312	324,538,694	9.97	22.33	32.30
314	73,038,983	20.85	23.54	44.39
315	13,742,601	32.06	27.13	59.19
316	<u>6,518,954</u>	22.08	26.26	48.34
Total	<u>453,988,990</u>			

Sources:

Cols. (2) and (3) from "Big Sandy Theo Res.xls", provided in response to AG-1-105.
Col. (4) from Exhibit____(MJM-4).

Company Depreciation Analysis Responses

KPSC Case No. 2005-0341
AG 2nd Set Data Request
Item No. 34
Page 2 of 2

**KENTUCKY POWER COMPANY
ANNUAL ACCUMULATED PROVISION FOR DEPRECIATION
ACCOUNTS 1000001 AND 1000011**

YEAR	FUNCTION	BEGINNING RESERVE BALANCE	ANNUAL DEPRECIATION	ANNUAL RETIREMENTS	ANNUAL COST OF REMOVAL	ANNUAL SALVAGE	ANNUAL TRANSFERS/ ADJUSTMENTS	ENDING RESERVE BALANCE
2002	Generation	(159,872,974)	(9,994,819)	875,114	59,320	(30,870)	12,084	(169,972,144)
	Transmission	(96,763,548)	(6,905,488)	433,622	49,854	31,282	(74,928)	(102,829,495)
	Distribution	(100,722,489)	(14,229,841)	6,504,531	2,899,010	(4,836,825)	(74)	(110,505,088)
	General Plant	(13,949,847)	(983,850)	502,454	35,368	(289,750)	15,295	(14,830,360)
	Total	(371,308,658)	(31,514,008)	8,115,731	3,092,952	(5,075,162)	(48,714)	(396,787,057)
2003	Generation	(189,972,144)	(13,953,839)	17,259,019	7,312,512	28,930	9,382	(158,304,792)
	Transmission	(102,829,495)	(6,400,486)	590,515	912,726	(905,945)	9,533	(107,824,114)
	Distribution	(110,505,089)	(14,888,486)	8,434,873	1,682,264	(1,580,605)	(14,885)	(114,652,117)
	General Plant	(14,830,340)	(983,826)	1,140,509	(844,738)	100,100	(280,082)	(14,700,015)
	Total	(398,137,068)	(36,025,629)	27,019,916	8,082,776	(1,737,892)	(90,885)	(400,509,998)
2004	Generation	(158,324,792)	(16,744,840)	3,128,848	4,858,028	(14,008)	0	(167,266,464)
	Transmission	(107,824,114)	(6,510,774)	1,113,137	224,887	(129,249)	(15)	(113,129,358)
	Distribution	(119,652,117)	(15,190,426)	7,280,558	2,120,023	(1,040,987)	18	(126,512,847)
	General Plant	(14,700,015)	(752,083)	13,449,884	(1,474,837)	(1,063,478)	0	(6,549,829)
	Total	(400,509,998)	(39,198,136)	23,942,222	5,538,071	(2,247,720)	3	(412,476,598)

Notes:

- (1) This analysis includes the balances in Accounts 1000001, Accumulated Provision for Depreciation, and Account 1000011, Cost of Removal Reserve. Balances in Account 1000005, Retirement Work In Progress, are not included in this analysis.
- (2) Third party reimbursements are not separately identified in the depreciation reserve. Consequently this information was not available for this analysis.

KPSC Case No. 2005-00341
Attorney General Second Set Data Request
Order Dated December 12, 2005
Item No. 36
Page 1 of 1

Kentucky Power Company

REQUEST

Refer to the response to AG Request No. 117, which refers to the response to AG Request No. 105. The remaining life calculations for transmission, distribution and general plant were not provided in that response. Please provide the calculations in Excel format.

RESPONSE

The remaining life calculations for transmission, distribution and general plant were not provided because the calculations are performed by the proprietary D&T book depreciation software. Hard copies of the remaining life calculations for Transmission, Distribution and General Plant are contained in the depreciation study workpapers.

Company Depreciation Analysis Responses

1992 Case No. 92-00001
1992-1993 Case No. 92-00002
Case Document ID 502
Page 42 of 42
Page 42

1. A. From time to time it is necessary to review existing
2. depreciation rates to determine whether they are still
3. appropriate. The last depreciation study for Kentucky
4. Power was performed in 1980. The purpose of the
5. present study, therefore, is to recommend appropriate
6. annual depreciation rates for Kentucky Power to use in
7. computing annual book depreciation expenses in light of
8. current conditions.
9. Q. Would you briefly describe the methods and procedures
10. used in the study?
11. A. The methods and procedures are fully described in
12. Exhibit JM-1. Briefly, however, the study is based
13. on the Average Remaining Life procedure instead of the
14. Average Service Life procedure used in the last
15. depreciation study.
16. Q. Please explain the difference between the Average
17. Service Life procedure and the Average Remaining Life
18. procedure.
19. A. The Average Service Life procedure recovers the
20. original cost of the plant, adjusted for net salvage,
21. over the average service life of the investment. The
22. basic assumptions used in determining depreciation
23. rates by the Average Service Life procedure are: 1) the
24. property will be retired over a specified average life
25. and 2) the future amount of net salvage is known. One
26. major shortcoming of the Average Service Life procedure

Company Depreciation Analysis Responses

Form No. 200-1001
Revised 10/01
Page 2 of 25

- 1. is that it does not provide a mechanism to adjust the
- 2. accumulated depreciation when changes occur in service
- 3. life or net salvage.
- 4. The Average Remaining Life procedure compensates
- 5. for this shortcoming by recovering the original cost of
- 6. the plant, adjusted for net salvage, less the
- 7. accumulated depreciation, over the average remaining
- 8. life of the plant. By this procedure, the annual
- 9. depreciation rate for each account is determined on the
- 10. following basis:
- 11. Annual Depreciation Expense =
- 12.
$$\frac{(\text{Orig. Cost}) - (\text{Net Salvage Ratio}) \times \text{Accumulated Depreciation}}{\text{Average Remaining Life}}$$
- 13. Annual Depreciation Rate =
- 14.
$$\frac{\text{Annual Depreciation Expense}}{\text{Original Cost}}$$
- 15. Q. Were there any other major changes in methodology
- 16. from the last study?
- 17. A. Yes. We changed the method for determining net
- 18. salvage for steam production plant. Previously,
- 19. we had used an industry standard value of negative
- 20. ten percent. However, because of the significant
- 21. increases in the cost of removal of production plant,
- 22. it has now become more appropriate to use a site-
- 23. specific analysis. To assist in establishing the
- 24. net salvage applicable to Kentucky Power's steam
- 25.

Company Depreciation Analysis Responses

13. Q. How are the depreciation rates which you recommend used
14. in determining annual depreciation expense?
15. A. In the Study, depreciation rates were determined for
16. each primary plant account. The resulting rates for
17. each account at December 31, 1989 were then applied to
18. the investment in each account at December 31, 1989
19. and the results were composited to determine a rate
20. for each functional group of depreciable property for
21. which Kentucky Power computes the annual depreciation
22. expense and maintains the accumulated provisions for
23. depreciation.
24. Q. How do the depreciation rates recommended as a result
25. of the study compare with Kentucky Power's current
26. rates?

HENDERSON Case No. 2005-00341
AG and JAC Data Requests
Dated December 12, 2005
Item No. 48
Page 7 of 43

KPEG Case No. 2005-00341
HENDERSON Data Requests
Dated December 12, 2005
Item No. 48
Page 8 of 43

- A. The results by primary plant account and functional
group are shown in Exhibit JEH-1 on Schedule I, pages
I-2 through I-4. Based on December 31, 1989
depreciable plant in service Kentucky Power's overall
composite rate decreases from 3.09% to 2.96%.
Q. Will you explain, in general, what caused the reduction
in the overall composite depreciation rate?
A. Yes. In general, the depreciable lives of all
functional plant groups have increased since the last
depreciation study. This resulted in a decrease in the
composite depreciation rate for all functional plant
groups. The increase in the depreciable life for
Steam Production Plant, however, was mitigated by the
effect of the site-specific demolition cost estimate
for Big Sandy Plant.
Q. When do you recommend that the revised depreciation
rates become effective?
A. I recommend that the revised depreciation rates become
effective concurrent with the effective date of new
rates established by the Commission in Case No. 91-066,
Kentucky Power's 1991 Rate Application.
Q. Does this conclude your direct testimony?
A. Yes.

Company Depreciation Analysis Responses

Actuarial Accounts

EXHIBIT JEN-1
Page 16 of 34
KPSC Case 2008-0034
AG and Set Data Requests
Dated December 12, 2005
Item No. 46
Page 25 of 43

supplied by KP. The actual survivor curve for the 1950-1989 period is plotted and matched on Page A-4, as explained above. This method was used for the following accounts:

- 350.2 Transmission-Rights of Way
- 352.0 Structures and Improvements
- 353.0 Station Equipment
- 354.0 Towers and Fixtures 138KV and Above
- 355.0 Poles and Fixtures 138KV and Above
- 356.0 OH Conductor and Devices 138KV and Above
- 360.2 Distribution - Rights of Way
- 361.0 Structures and Improvements
- 362.0 Station Equipment
- 390.0 General - Structures and Improvements

Company Depreciation Analysis Responses

SPR Accounts

EXHIBIT JEH-1
Page 18 of 34
KPSC Case No. 2005-00341
AG 2nd Set Data Requests
Dated December 12, 2005
Item No. 46
Page 27 of 43

The SPR Method of Life Analysis was utilized for the following accounts:

- 354.0 Transmission - Towers and Fixtures Below 138 KV
- 355.0 Poles and Fixtures Below 138 KV
- 356.0 OH Conductor and Devices - Below 138 KV
- 364.0 Distribution - Poles, Towers and Fixtures
- 365.0 OH Conductor and Devices
- 366.0 Underground Conduit
- 367.0 Underground Conductor and Devices
- 368.0 Line Transformers
- 369.0 Services
- 370.0 Meters
- 371.0 Installations on Customers Premises

EXHIBIT JEH-1
Page 18 of 34
KPSC Case No. 2005-00341
AG 2nd Set Data Requests
Dated December 12, 2005
Item No. 46
Page 28 of 43

- 373.0 Street Lighting and Signal Systems
- 391.0 Office Furniture and Equipment
- 392.0 Transportation Equipment - Other
- 393.0 Stores Equipment
- 394.0 Tools, Shop and Garage Equipment
- 395.0 Laboratory Equipment
- 397.0 Communication Equipment
- 398.0 Miscellaneous Equipment

Company Depreciation Analysis Responses

EXHIBIT JEH-1
KPSC Case 05-0347
AG 2nd Sel Data Request
Dated December 12, 2005
Item No. 46
Page 28 of 43

Final Selection of Average Life and Curve Type

The final selection of average life and curve type for each depreciable plant account analyzed by the Actuarial and Simulating Methods was primarily based on the results of the mortality analyses of past retirement history.

Company Depreciation Analysis Responses

**KPSC Case No. 2005-00341
Attorney General Second Set Data Request
Order Date December 12, 2005
Item No. 56
Page 1 of 2**

Kentucky Power Company

REQUEST

Please refer to page 7 of Mr. Henderson's direct testimony, and page 31 of Mr. Wagner's testimony. Please explain why the Company has calculated its depreciation adjustment using functional composite rates when Mr. Henderson recommended the use of plant account rates. Does the Company intend to use the plant account rates and reserves as recommended by Mr. Henderson in tracking depreciation?

RESPONSE

The Company intends to use the individual plant account depreciation rates as recommended by Mr. Henderson if the Kentucky Public Service Commission approves that recommendation. The Company calculated its depreciation adjustment using functional composite rates because the use of functional composite rates is what the Company currently has Commission approval to use. There would be a very small dollar difference between using the depreciation rates by account that were recommended by Mr. Henderson and the functional composite rates that were used by Mr. Wagner to calculate the depreciation adjustment.

Kentucky Power Company
Production

Kentucky Power Company

311 - Structures & Improvements

Company Notes

KPSC Case No. 2005-00341
Commission Staff Proposed Set Data Request
Dated November 10, 2005
Item No. 34
Page 1 of 1

Kentucky Power Company

REQUEST

Refer to the Direct Testimony of James E. Henderson ("Henderson Testimony"), pages 6 and 7.

- a. The determination of the average service lives for the Production Plant did not use the same approach as was used for the Transmission, Distribution, and General Plant. Explain in detail why the same approach was not used for all types of utility plant.
- b. Explain in detail why the probable demolition cost for the Big Sandy Plant was included in the depreciation rates proposed for the Production Plant.
- c. Is the inclusion of probable demolition cost for a utility plant normally included in depreciation rates? Explain the response in detail.

RESPONSE

- a. The life span forecast was used for Production Plant because this plant is located at a specific location and the surviving balance will be retired, in total, at a future date. This compares to Transmission, Distribution and General Plant that will experience continuous retirements but it is envisioned that these systems will continue to operate. Please refer to Exhibit JEH-1, pages 2 and 3 for a discussion of the life span forecast method.
- b. The probable demolition cost for the Big Sandy Plant was included in the depreciation rates because it ensures that the generation of customers using the Plant will also pay for the costs of its future demolition.
- c. Expected demolition of facilities such as Steam Production Plants are usually included in depreciation rates in order to provide for recovery of the future demolition costs from the generation of customers using the Plant. These costs were included in the Company's current depreciation rates approved by the Kentucky Commission in Case No. 91-056.

WITNESS: James E Henderson

KPSC Case No. 2005-00341
Commission Staff Second Set Data Request
Dated November 10, 2005
Item No. 35
Page 1 of 1

Kentucky Power Company

REQUEST

Refer to the Henderson Testimony, Exhibit JEH-1, page iii. Mr. Henderson is recommending that Kentucky Power adopt and apply the depreciation accrual rates at the primary plant account level and the accumulated depreciation be established by the primary plant account as of a specific date. Kentucky Power currently applies depreciation rates and maintains the accumulated depreciation by functional plant classification.

- a. Explain why Kentucky Power has not used the primary plant account level prior to the filing of this case.
- b. Provide the name of each operating company within the total AEP system, and indicate whether it follows the primary plant account level or functional plant classification. To the extent Mr. Henderson knows, which approach is more commonly followed in the investor-owned electric industry today: primary plant account level or functional plant classification?

RESPONSE

- a. Kentucky Power has not used depreciation rates at the primary account level because the rates approved in KP's last Case No. 91-066 were approved at the functional plant level.
- b. Appalachian Power Co. Applies rates by account. Maintains reserve at functional level.
Columbus Southern Power Applies rates and maintains reserve by account.
Indiana Michigan Power Applies rates by account. Maintains reserve at functional level.
Kingsport Power Applies rates and maintains reserve at functional level.
Ohio Power - Applies rates by account. Maintains reserve at functional level.
Wheeling Power - Applies rates and maintains reserve at functional level.
AEP Texas Central - Applies rates and maintains reserve by account.
AEP Texas North - Applies rates by account. Maintains reserve at functional level.
Public Service Company of Oklahoma - Applies rates by account. Maintains reserve at functional plant level.
SWEPCO - Applies rates by account. Maintains reserve at functional level.

Based on Mr. Henderson's conversations with Depreciation Consultants and other investor utilities, the mix is similar to the AEP System Companies, but the trend is to apply depreciation rates and maintain reserves at the plant account level.

WITNESS: James E Henderson

KENTUCKY POWER COMPANY
DEPRECIATION STUDY AS OF DECEMBER 31, 2004
CALCULATION OF AVERAGE REMAINING LIFE
BIG SANDY PLANT, ACCOUNT 311
RETIREMENT YEARS - UNIT 1 2028; UNIT 2 2034

ANNUAL INTERIM RETIREMENT RATE 0.0011

<u>YEAR</u>	<u>AMOUNT RETIRED</u>	<u>REM. LIFE (YEARS)</u>	<u>DOLLAR YEARS</u>	<u>AVERAGE REM. LIFE</u>
2005	39,765	0.5	19,882	
2006	39,765	1.5	59,647	
2007	39,765	2.5	99,412	
2008	39,765	3.5	139,177	
2009	39,765	4.5	178,941	
2010	39,765	5.5	218,706	
2011	39,765	6.5	258,471	
2012	39,765	7.5	298,236	
2013	39,765	8.5	338,000	
2014	39,765	9.5	377,765	
2015	39,765	10.5	417,530	
2016	39,765	11.5	457,294	
2017	39,765	12.5	497,059	
2018	39,765	13.5	536,824	
2019	39,765	14.5	576,589	
2020	39,765	15.5	616,353	
2021	39,765	16.5	656,118	
2022	39,765	17.5	695,883	
2023	39,765	18.5	735,648	
2024	39,765	19.5	775,412	
2025	39,765	20.5	815,177	
2026	39,765	21.5	854,942	
2027	39,765	22.5	894,707	
2028	5,875,352	23.5	138,070,766	
2029	33,346	24.5	816,967	
2030	33,346	25.5	850,312	
2031	33,346	26.5	883,658	
2032	33,346	27.5	917,004	
2033	33,346	28.5	950,349	
2034	29,193,089	29.5	861,196,139	
TOTALS	36,149,758		1,014,202,967	28.06

INTERIM RETIREMENTS:

Total Plant at 12/31/04	36,149,758
Less Retirement of Unit 1 in 2028	-5,835,587
Less Final Retirement in year 2034	<u>-29,193,089</u>
Total Interim Retirements	<u>1,121,082</u>

Note:

Unit 1 Retirement at 2028 based on 65 year life span from 1963.

SPR Results
Kentucky Power Company
Account: 311 - Structures & Improvements

Curve	Life	Sum of Squared Differences	Index of Variation
BAND: 1963 - 2004			
R2.5	100	2.68E+11	3
R3	76	7.64E+11	6
S1	100	1.01E+12	7
L2	92	1.09E+12	7
S1.5	86	1.25E+12	8
S2	73	2.19E+12	10
L3	68	2.21E+12	10
R4	58	2.48E+12	11
L1.5	100	2.54E+12	11
R2	100	2.84E+12	11
S3	60	3.59E+12	13
L4	56	3.92E+12	13
S0.5	100	5.17E+12	15
S4	51	5.43E+12	16
R5	48	5.45E+12	16
L5	49	5.80E+12	16
S5	46	6.95E+12	18
S6	44	8.19E+12	19
SQ	42	1.15E+13	23
L1	100	1.32E+13	24
R1.5	100	1.73E+13	28
S0	100	2.01E+13	30
R1	100	4.46E+13	45
L0.5	100	4.80E+13	47
S-0.5	100	7.54E+13	59
R0.5	100	9.68E+13	66
L0	100	1.06E+14	70
O1	100	1.69E+14	88
O2	100	2.26E+14	101
O3	100	5.28E+14	155
O4	100	1.02E+15	215

Minimum Equipment Life Expectancy: 1
 Maximum Equipment Life Expectancy: 100
 Life Expectancy Increment: 1
 Begin Year: 1963
 End Year: 2004
 Year Fit Increment: 0

Plant Balances

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	36,207,653	2003	35,651,074	2002	29,390,440	2001	29,391,177
2000	29,379,088	1999	29,349,741	1998	29,133,568	1997	26,740,065
1996	26,841,869	1995	26,823,506	1994	26,786,851	1993	25,535,989
1992	25,424,078	1991	25,415,501	1990	25,432,531	1989	24,952,180
1988	24,926,674	1987	24,755,708	1986	24,721,719	1985	24,721,719
1984	24,658,583	1983	24,577,937	1982	24,495,894	1981	23,823,755
1980	23,611,312	1979	23,590,383	1978	23,381,072	1977	23,107,722
1976	23,020,223	1975	22,954,561	1974	22,925,342	1973	22,860,917
1972	22,858,312	1971	22,801,452	1970	22,675,411	1969	21,879,067
1968	6,108,693	1967	6,087,411	1966	6,156,169	1965	6,159,252
1964	6,140,900	1963	6,127,706				

Simulated Balances

Curve: R2.5 ASL: 100 SSD: 2.68E+11 IV: 3

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	36,075,030	2003	35,506,226	2002	29,298,388	2001	29,352,112
2000	29,383,903	1999	29,387,636	1998	29,215,946	1997	26,813,917
1996	26,857,628	1995	26,786,429	1994	26,781,222	1993	25,565,001
1992	25,433,175	1991	25,446,421	1990	25,462,199	1989	25,010,890
1988	25,013,892	1987	24,872,332	1986	24,866,307	1985	24,894,128
1984	24,856,123	1983	24,800,679	1982	24,435,390	1981	23,742,172
1980	23,551,535	1979	23,545,234	1978	23,351,269	1977	23,072,944
1976	23,004,000	1975	22,956,124	1974	22,943,955	1973	22,894,218
1972	22,907,288	1971	22,865,459	1970	22,716,802	1969	21,926,834
1968	6,165,082	1967	6,147,894	1966	6,151,241	1965	6,150,750
1964	6,135,752	1963	6,126,015				

Curve: R3 ASL: 76 SSD: 7.64E+11 IV: 6

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	35,944,718	2003	35,405,679	2002	29,226,031	2001	29,305,809
2000	29,361,062	1999	29,385,902	1998	29,232,674	1997	26,847,283
1996	26,906,066	1995	26,847,772	1994	26,853,457	1993	25,646,692
1992	25,522,810	1991	25,542,290	1990	25,562,939	1989	25,115,218
1988	25,120,378	1987	24,979,942	1986	24,974,023	1985	25,000,723
1984	24,960,753	1983	24,902,571	1982	24,533,693	1981	23,836,396
1980	23,641,278	1979	23,629,840	1978	23,430,275	1977	23,146,054
1976	23,070,825	1975	23,016,303	1974	22,997,256	1973	22,940,395
1972	22,946,108	1971	22,896,815	1970	22,740,597	1969	21,943,071
1968	6,176,581	1967	6,157,362	1966	6,158,631	1965	6,156,047
1964	6,138,946	1963	6,127,081				

Curve: S1		ASL: 100		SSD: 1.01E+12		IV: 7	
Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	35,942,034	2003	35,398,642	2002	29,216,443	2001	29,295,812
2000	29,351,525	1999	29,377,472	1998	29,226,360	1997	26,843,919
1996	26,906,145	1995	26,851,744	1994	26,861,644	1993	25,659,147
1992	25,539,700	1991	25,563,670	1990	25,588,476	1989	25,144,640
1988	25,153,605	1987	25,016,438	1986	25,013,265	1985	25,042,396
1984	25,004,211	1983	24,947,186	1982	24,579,054	1981	23,881,959
1980	23,686,433	1979	23,674,102	1978	23,473,047	1977	23,186,734
1976	23,108,929	1975	23,051,358	1974	23,028,767	1973	22,967,981
1972	22,969,495	1971	22,915,728	1970	22,754,935	1969	21,952,994
1968	6,183,737	1967	6,163,254	1966	6,163,216	1965	6,159,283
1964	6,140,839	1963	6,127,700				

Curve: L2		ASL: 92		SSD: 1.09E+12		IV: 7	
Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	35,938,605	2003	35,403,160	2002	29,226,743	2001	29,310,104
2000	29,368,399	1999	29,395,857	1998	29,245,470	1997	26,863,186
1996	26,925,104	1995	26,870,136	1994	26,879,287	1993	25,675,959
1992	25,555,662	1991	25,578,788	1990	25,602,771	1989	25,158,154
1988	25,166,361	1987	25,028,454	1986	25,024,565	1985	25,052,896
1984	25,013,912	1983	24,956,094	1982	24,587,171	1981	23,889,316
1980	23,693,040	1979	23,679,938	1978	23,478,130	1977	23,191,097
1976	23,112,605	1975	23,054,393	1974	23,031,213	1973	22,969,864
1972	22,970,893	1971	22,916,755	1970	22,755,676	1969	21,953,521
1968	6,184,116	1967	6,163,499	1966	6,163,354	1965	6,159,351
1964	6,140,863	1963	6,127,703				

Curve: S1.5		ASL: 86		SSD: 1.25E+12		IV: 8	
Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	35,913,296	2003	35,382,836	2002	29,211,884	2001	29,300,759
2000	29,364,675	1999	29,397,588	1998	29,252,286	1997	26,874,574
1996	26,940,424	1995	26,888,396	1994	26,899,872	1993	25,698,229
1992	25,578,996	1991	25,602,628	1990	25,626,563	1989	25,181,134
1988	25,188,189	1987	25,048,880	1986	25,043,405	1985	25,070,109
1984	25,029,452	1983	24,969,707	1982	24,598,885	1981	23,899,232
1980	23,701,287	1979	23,686,699	1978	23,483,585	1977	23,195,302
1976	23,115,718	1975	23,056,635	1974	23,032,780	1973	22,970,979
1972	22,971,689	1971	22,917,263	1970	22,755,965	1969	21,953,671
1968	6,184,167	1967	6,163,512	1966	6,163,359	1965	6,159,346
1964	6,140,857	1963	6,127,702				

Curve: S2		ASL: 73		SSD: 2.19E+12		IV: 10	
------------------	--	----------------	--	----------------------	--	---------------	--

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	35,824,557	2003	35,328,569	2002	29,188,661	2001	29,304,629
2000	29,392,407	1999	29,445,637	1998	29,317,034	1997	26,953,373
1996	27,030,021	1995	26,986,488	1994	27,004,189	1993	25,805,995
1992	25,688,352	1991	25,711,725	1990	25,733,509	1989	25,285,093
1988	25,287,775	1987	25,142,980	1986	25,131,411	1985	25,151,186
1984	25,103,263	1983	25,036,320	1982	24,658,090	1981	23,951,156
1980	23,746,125	1979	23,724,682	1978	23,515,241	1977	23,221,208
1976	23,136,495	1975	23,072,916	1974	23,045,180	1973	22,980,135
1972	22,978,257	1971	22,921,859	1970	22,759,123	1969	21,955,787
1968	6,185,522	1967	6,164,300	1966	6,163,751	1965	6,159,504
1964	6,140,900	1963	6,127,706				

Curve: L3 ASL: 68 SSD: 2.21E+12 IV: 10

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	35,775,242	2003	35,294,725	2002	29,165,994	2001	29,289,685
2000	29,382,042	1999	29,437,783	1998	29,310,368	1997	26,946,663
1996	27,022,847	1995	26,978,924	1994	26,995,581	1993	25,797,405
1992	25,679,403	1991	25,703,083	1990	25,725,439	1989	25,277,888
1988	25,281,556	1987	25,138,175	1986	25,127,700	1985	25,148,891
1984	25,102,151	1983	25,036,188	1982	24,658,896	1981	23,952,546
1980	23,747,923	1979	23,726,699	1978	23,517,242	1977	23,223,043
1976	23,138,122	1975	23,074,221	1974	23,046,237	1973	22,980,965
1972	22,978,901	1971	22,922,341	1970	22,759,455	1969	21,955,983
1968	6,185,619	1967	6,164,337	1966	6,163,762	1965	6,159,507
1964	6,140,900	1963	6,127,706				

Curve: R4 ASL: 58 SSD: 2.48E+12 IV: 11

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	35,773,328	2003	35,309,045	2002	29,193,851	2001	29,328,896
2000	29,429,816	1999	29,492,135	1998	29,369,131	1997	27,007,364
1996	27,083,845	1995	27,038,276	1994	27,052,143	1993	25,849,387
1992	25,726,411	1991	25,744,087	1990	25,760,358	1989	25,306,240
1988	25,303,795	1987	25,154,334	1986	25,138,388	1985	25,154,626
1984	25,103,721	1983	25,034,309	1982	24,654,290	1981	23,946,040
1980	23,740,175	1979	23,718,389	1978	23,508,848	1977	23,215,086
1976	23,130,836	1975	23,067,816	1974	23,040,769	1973	22,976,436
1972	22,975,242	1971	22,919,516	1970	22,757,386	1969	21,954,575
1968	6,184,660	1967	6,163,657	1966	6,163,303	1965	6,159,221
1964	6,140,750	1963	6,127,664				

Curve: L1.5 ASL: 100 SSD: 2.54E+12 IV: 11

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	35,469,723	2003	34,946,905	2002	28,783,726	2001	28,880,808
2000	28,953,904	1999	28,996,927	1998	28,862,582	1997	26,496,302
1996	26,574,136	1995	26,535,141	1994	26,560,239	1993	25,372,578

1992	25,267,600	1991	25,305,824	1990	25,344,677	1989	24,914,615
1988	24,937,060	1987	24,813,124	1986	24,822,937	1985	24,864,807
1984	24,839,125	1983	24,794,333	1982	24,438,107	1981	23,752,525
1980	23,568,150	1979	23,566,684	1978	23,376,217	1977	23,100,173
1976	23,032,331	1975	22,984,446	1974	22,971,248	1973	22,919,537
1972	22,929,788	1971	22,884,387	1970	22,731,518	1969	21,936,926
1968	6,172,360	1967	6,154,200	1966	6,156,386	1965	6,154,569
1964	6,138,110	1963	6,126,814				

Curve: R2 ASL: 100 SSD: 2.84E+12 IV: 11

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	35,574,293	2003	35,025,281	2002	28,835,849	2001	28,906,721
2000	28,955,621	1999	28,976,400	1998	28,821,648	1997	26,435,981
1996	26,495,511	1995	26,440,031	1994	26,450,421	1993	25,249,445
1992	25,132,477	1991	25,160,444	1990	25,190,820	1989	24,753,877
1988	24,771,010	1987	24,643,405	1986	24,651,136	1985	24,692,535
1984	24,667,938	1983	24,625,707	1982	24,273,350	1981	23,592,658
1980	23,414,186	1979	23,419,805	1978	23,237,522	1977	22,970,591
1976	22,912,754	1975	22,875,750	1974	22,874,235	1973	22,834,921
1972	22,858,204	1971	22,826,364	1970	22,687,428	1969	21,906,779
1968	6,150,922	1967	6,136,444	1966	6,142,444	1965	6,144,546
1964	6,132,076	1963	6,124,801				

Curve: S3 ASL: 60 SSD: 3.59E+12 IV: 13

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	35,744,979	2003	35,310,335	2002	29,221,540	2001	29,378,835
2000	29,498,194	1999	29,575,528	1998	29,463,756	1997	27,109,846
1996	27,191,664	1995	27,148,320	1994	27,161,941	1993	25,957,423
1992	25,830,694	1991	25,843,134	1990	25,853,414	1989	25,392,501
1988	25,382,628	1987	25,225,725	1986	25,202,282	1985	25,211,134
1984	25,153,195	1983	25,077,146	1982	24,691,009	1981	23,977,193
1980	23,766,303	1979	23,740,088	1978	23,526,685	1977	23,229,548
1976	23,142,434	1975	23,077,027	1974	23,047,946	1973	22,981,941
1972	22,979,381	1971	22,922,542	1970	22,759,510	1969	21,955,993
1968	6,185,619	1967	6,164,337	1966	6,163,762	1965	6,159,507
1964	6,140,900	1963	6,127,706				

Curve: L4 ASL: 56 SSD: 3.92E+12 IV: 13

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	35,647,502	2003	35,231,904	2002	29,158,715	2001	29,330,018
2000	29,461,777	1999	29,549,624	1998	29,447,798	1997	27,103,153
1996	27,192,485	1995	27,155,548	1994	27,174,382	1993	25,973,527
1992	25,849,449	1991	25,863,276	1990	25,873,585	1989	25,411,940
1988	25,400,754	1987	25,241,935	1986	25,216,326	1985	25,222,917
1984	25,162,728	1983	25,084,691	1982	24,696,842	1981	23,981,562
1980	23,769,470	1979	23,742,300	1978	23,528,156	1977	23,230,485

1976	23,142,997	1975	23,077,336	1974	23,048,117	1973	22,982,027
1972	22,979,422	1971	22,922,562	1970	22,759,519	1969	21,955,993
1968	6,185,619	1967	6,164,337	1966	6,163,762	1965	6,159,507
1964	6,140,900	1963	6,127,706				

Curve: S0.5 ASL: 100 SSD: 5.17E+12 IV: 15

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	35,255,841	2003	34,732,666	2002	28,570,373	2001	28,669,726
2000	28,745,771	1999	28,792,310	1998	28,661,919	1997	26,300,303
1996	26,383,577	1995	26,350,505	1994	26,381,935	1993	25,201,131
1992	25,103,561	1991	25,149,586	1990	25,196,589	1989	24,775,023
1988	24,806,284	1987	24,691,407	1986	24,710,452	1985	24,761,651
1984	24,745,316	1983	24,709,806	1982	24,362,758	1981	23,686,272
1980	23,510,841	1979	23,518,040	1978	23,335,872	1977	23,067,694
1976	23,007,180	1975	22,965,976	1974	22,958,671	1973	22,911,936
1972	22,926,107	1971	22,883,383	1970	22,731,731	1969	21,936,620
1968	6,171,911	1967	6,154,769	1966	6,157,635	1965	6,156,102
1964	6,139,462	1963	6,127,381				

Curve: S4 ASL: 51 SSD: 5.43E+12 IV: 16

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	35,649,476	2003	35,325,490	2002	29,318,427	2001	29,533,248
2000	29,689,549	1999	29,786,016	1998	29,680,042	1997	27,321,750
1996	27,391,197	1995	27,330,759	1994	27,324,582	1993	26,098,706
1992	25,950,940	1991	25,943,532	1990	25,935,429	1989	25,458,311
1988	25,434,525	1987	25,265,760	1986	25,232,632	1985	25,233,740
1984	25,169,647	1983	25,088,900	1982	24,699,242	1981	23,982,801
1980	23,770,048	1979	23,742,523	1978	23,528,220	1977	23,230,497
1976	23,142,998	1975	23,077,336	1974	23,048,117	1973	22,982,027
1972	22,979,422	1971	22,922,562	1970	22,759,519	1969	21,955,993
1968	6,185,619	1967	6,164,337	1966	6,163,762	1965	6,159,507
1964	6,140,900	1963	6,127,706				

Curve: R5 ASL: 48 SSD: 5.45E+12 IV: 16

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	35,579,998	2003	35,278,147	2002	29,284,795	2001	29,507,951
2000	29,669,357	1999	29,769,179	1998	29,665,604	1997	27,309,360
1996	27,380,860	1995	27,322,496	1994	27,318,321	1993	26,094,265
1992	25,948,000	1991	25,941,755	1990	25,934,506	1989	25,457,967
1988	25,434,530	1987	25,265,969	1986	25,232,917	1985	25,234,011
1984	25,169,872	1983	25,089,059	1982	24,699,344	1981	23,982,863
1980	23,770,081	1979	23,742,537	1978	23,528,226	1977	23,230,497
1976	23,142,998	1975	23,077,336	1974	23,048,117	1973	22,982,027
1972	22,979,422	1971	22,922,562	1970	22,759,519	1969	21,955,993
1968	6,185,619	1967	6,164,337	1966	6,163,762	1965	6,159,507
1964	6,140,900	1963	6,127,706				

Curve: L5		ASL: 49		SSD: 5.80E+12		IV: 16	
Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	35,591,746	2003	35,301,078	2002	29,316,149	2001	29,545,136
2000	29,710,236	1999	29,811,978	1998	29,708,790	1997	27,351,382
1996	27,420,119	1995	27,357,702	1994	27,348,654	1993	26,119,436
1992	25,968,184	1991	25,957,428	1990	25,946,257	1989	25,466,412
1988	25,440,271	1987	25,269,598	1986	25,235,013	1985	25,235,110
1984	25,170,386	1983	25,089,271	1982	24,699,420	1981	23,982,885
1980	23,770,084	1979	23,742,537	1978	23,528,226	1977	23,230,497
1976	23,142,998	1975	23,077,336	1974	23,048,117	1973	22,982,027
1972	22,979,422	1971	22,922,562	1970	22,759,519	1969	21,955,993
1968	6,185,619	1967	6,164,337	1966	6,163,762	1965	6,159,507
1964	6,140,900	1963	6,127,706				

Curve: S5		ASL: 46		SSD: 6.95E+12		IV: 18	
Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	35,507,962	2003	35,337,185	2002	29,427,002	2001	29,696,225
2000	29,875,168	1999	29,971,831	1998	29,851,574	1997	27,470,878
1996	27,514,131	1995	27,428,041	1994	27,398,727	1993	26,153,286
1992	25,989,776	1991	25,970,229	1990	25,953,166	1989	25,469,720
1988	25,441,611	1987	25,270,031	1986	25,235,114	1985	25,235,121
1984	25,170,386	1983	25,089,271	1982	24,699,420	1981	23,982,885
1980	23,770,084	1979	23,742,537	1978	23,528,226	1977	23,230,497
1976	23,142,998	1975	23,077,336	1974	23,048,117	1973	22,982,027
1972	22,979,422	1971	22,922,562	1970	22,759,519	1969	21,955,993
1968	6,185,619	1967	6,164,337	1966	6,163,762	1965	6,159,507
1964	6,140,900	1963	6,127,706				

Curve: S6		ASL: 44		SSD: 8.19E+12		IV: 19	
Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	35,733,383	2003	35,645,976	2002	29,760,091	2001	30,008,396
2000	30,138,742	1999	30,175,245	1998	29,995,639	1997	27,566,089
1996	27,573,615	1995	27,462,972	1994	27,418,068	1993	26,163,387
1992	25,994,730	1991	25,972,526	1990	25,954,169	1989	25,470,128
1988	25,441,766	1987	25,270,082	1986	25,235,127	1985	25,235,127
1984	25,170,386	1983	25,089,271	1982	24,699,420	1981	23,982,885
1980	23,770,084	1979	23,742,537	1978	23,528,226	1977	23,230,497
1976	23,142,998	1975	23,077,336	1974	23,048,117	1973	22,982,027
1972	22,979,422	1971	22,922,562	1970	22,759,519	1969	21,955,993
1968	6,185,619	1967	6,164,337	1966	6,163,762	1965	6,159,507
1964	6,140,900	1963	6,127,706				

Curve: SQ		ASL: 42		SSD: 1.15E+13		IV: 23	
------------------	--	----------------	--	----------------------	--	---------------	--

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	37,209,484	2003	36,578,808	2002	30,313,113	2001	30,312,682
2000	30,292,238	1999	30,245,609	1998	30,025,436	1997	27,577,385
1996	27,577,385	1995	27,464,091	1994	27,418,366	1993	26,163,454
1992	25,994,743	1991	25,972,526	1990	25,954,169	1989	25,470,128
1988	25,441,766	1987	25,270,082	1986	25,235,127	1985	25,235,127
1984	25,170,386	1983	25,089,271	1982	24,699,420	1981	23,982,885
1980	23,770,084	1979	23,742,537	1978	23,528,226	1977	23,230,497
1976	23,142,998	1975	23,077,336	1974	23,048,117	1973	22,982,027
1972	22,979,422	1971	22,922,562	1970	22,759,519	1969	21,955,993
1968	6,185,619	1967	6,164,337	1966	6,163,762	1965	6,159,507
1964	6,140,900	1963	6,127,706				

Curve: L1 ASL: 100 SSD: 1.32E+13 IV: 24

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	34,738,867	2003	34,250,505	2002	28,120,547	2001	28,249,629
2000	28,354,270	1999	28,428,274	1998	28,324,221	1997	25,987,176
1996	26,093,211	1995	26,081,668	1994	26,133,424	1993	24,971,462
1992	24,891,203	1991	24,953,346	1990	25,015,353	1989	24,607,611
1988	24,651,555	1987	24,548,349	1986	24,578,110	1985	24,639,193
1984	24,631,983	1983	24,604,919	1982	24,265,660	1981	23,596,197
1980	23,427,134	1979	23,440,293	1978	23,263,765	1977	23,000,961
1976	22,945,675	1975	22,909,686	1974	22,907,743	1973	22,866,644
1972	22,886,868	1971	22,850,799	1970	22,706,578	1969	21,919,831
1968	6,160,304	1967	6,144,731	1966	6,149,332	1965	6,149,756
1964	6,135,357	1963	6,125,929				

Curve: R1.5 ASL: 100 SSD: 1.73E+13 IV: 28

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	34,861,377	2003	34,335,618	2002	28,167,072	2001	28,256,702
2000	28,324,777	1999	28,365,123	1998	28,230,220	1997	25,863,692
1996	25,941,725	1995	25,905,053	1994	25,934,528	1993	24,752,430
1992	24,654,063	1991	24,700,829	1990	24,750,258	1989	24,332,404
1988	24,368,655	1987	24,260,308	1986	24,287,407	1985	24,348,350
1984	24,343,442	1983	24,320,979	1982	23,988,337	1981	23,327,041
1980	23,167,688	1979	23,192,430	1978	23,029,262	1977	22,781,307
1976	22,742,344	1975	22,724,190	1974	22,741,525	1973	22,721,058
1972	22,763,170	1971	22,750,133	1970	22,629,894	1969	21,867,527
1968	6,123,188	1967	6,113,782	1966	6,124,843	1965	6,131,997
1964	6,124,561	1963	6,122,298				

Curve: S0 ASL: 100 SSD: 2.01E+13 IV: 30

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	34,569,668	2003	34,066,701	2002	27,924,308	2001	28,043,664
2000	28,140,046	1999	28,207,155	1998	28,097,486	1997	25,756,701
1996	25,861,021	1995	25,849,279	1994	25,902,243	1993	24,743,117

1992	24,667,416	1991	24,735,514	1990	24,804,716	1989	24,405,419
1988	24,458,983	1987	24,366,393	1986	24,407,654	1985	24,480,926
1984	24,486,425	1983	24,472,429	1982	24,146,477	1981	23,490,593
1980	23,335,263	1979	23,362,001	1978	23,198,707	1977	22,948,664
1976	22,905,458	1975	22,880,602	1974	22,888,579	1973	22,855,905
1972	22,882,730	1971	22,851,050	1970	22,708,544	1969	21,920,257
1968	6,160,086	1967	6,146,287	1966	6,152,056	1965	6,152,924
1964	6,138,089	1963	6,127,066				

Curve: R1 ASL: 100 SSD: 4.46E+13 IV: 45

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	34,148,467	2003	33,645,953	2002	27,498,288	2001	27,606,692
2000	27,693,950	1999	27,753,848	1998	27,638,794	1997	25,291,408
1996	25,387,953	1995	25,370,104	1994	25,418,667	1993	24,255,431
1992	24,175,650	1991	24,241,225	1990	24,309,702	1989	23,910,941
1988	23,966,310	1987	23,877,211	1986	23,923,679	1985	24,004,168
1984	24,018,939	1983	24,016,245	1982	23,703,325	1981	23,061,423
1980	22,921,198	1979	22,965,064	1978	22,820,998	1977	22,592,012
1976	22,571,926	1975	22,572,639	1974	22,608,834	1973	22,607,206
1972	22,668,136	1971	22,673,900	1970	22,572,366	1969	21,828,286
1968	6,095,459	1967	6,091,124	1966	6,107,242	1965	6,119,448
1964	6,117,049	1963	6,119,798				

Curve: L0.5 ASL: 100 SSD: 4.80E+13 IV: 47

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	33,810,948	2003	33,341,524	2002	27,229,675	2001	27,376,964
2000	27,500,878	1999	27,595,065	1998	27,511,851	1997	25,196,067
1996	25,324,092	1995	25,335,567	1994	25,411,221	1993	24,273,881
1992	24,219,067	1991	24,307,619	1990	24,396,908	1989	24,017,188
1988	24,089,848	1987	24,016,041	1986	24,075,805	1985	24,167,385
1984	24,191,031	1983	24,195,006	1982	23,886,745	1981	23,248,131
1980	23,109,758	1979	23,153,423	1978	23,007,073	1977	22,773,923
1976	22,747,650	1975	22,739,889	1974	22,765,150	1973	22,749,957
1972	22,794,433	1971	22,780,478	1970	22,655,526	1969	21,883,882
1968	6,134,055	1967	6,125,050	1966	6,135,661	1965	6,141,389
1964	6,131,356	1963	6,124,884				

Curve: S-0.5 ASL: 100 SSD: 7.54E+13 IV: 59

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	33,489,142	2003	33,014,564	2002	26,894,135	2001	27,029,375
2000	27,143,093	1999	27,229,006	1998	27,139,427	1997	24,817,012
1996	24,938,116	1995	24,944,399	1994	25,016,619	1993	23,876,585
1992	23,819,578	1991	23,907,472	1990	23,997,804	1989	23,620,415
1988	23,696,660	1987	23,627,912	1986	23,694,196	1985	23,793,923
1984	23,827,308	1983	23,842,570	1982	23,546,898	1981	22,921,548
1980	22,797,181	1979	22,856,165	1978	22,726,447	1977	22,511,007

1976	22,503,622	1975	22,516,145	1974	22,563,180	1973	22,571,331
1972	22,640,895	1971	22,654,007	1970	22,558,340	1969	21,818,330
1968	6,088,229	1967	6,086,124	1966	6,104,133	1965	6,117,845
1964	6,116,501	1963	6,119,728				

Curve: R0.5 ASL: 100 SSD: 9.68E+13 IV: 66

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	33,278,542	2003	32,804,182	2002	26,681,122	2001	26,810,890
2000	26,920,048	1999	27,002,358	1998	26,910,087	1997	24,584,367
1996	24,701,581	1995	24,704,815	1994	24,774,840	1993	23,632,745
1992	23,573,698	1991	23,660,334	1990	23,750,301	1989	23,373,186
1988	23,450,335	1987	23,383,329	1986	23,452,217	1985	23,555,546
1984	23,593,568	1983	23,614,497	1982	23,325,345	1981	22,706,974
1980	22,590,148	1979	22,657,701	1978	22,537,601	1977	22,332,686
1976	22,336,860	1975	22,362,163	1974	22,423,306	1973	22,446,987
1972	22,533,605	1971	22,565,431	1970	22,490,241	1969	21,772,334
1968	6,055,915	1967	6,058,544	1966	6,081,727	1965	6,101,107
1964	6,105,978	1963	6,116,091				

Curve: L0 ASL: 100 SSD: 1.06E+14 IV: 70

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	32,883,048	2003	32,432,550	2002	26,338,805	2001	26,504,313
2000	26,647,496	1999	26,761,853	1998	26,699,480	1997	24,404,969
1996	24,554,982	1995	24,589,479	1994	24,689,039	1993	23,576,324
1992	23,546,953	1991	23,661,903	1990	23,778,459	1989	23,426,754
1988	23,528,149	1987	23,483,752	1986	23,573,521	1985	23,695,605
1984	23,750,092	1983	23,785,080	1982	23,507,838	1981	22,900,077
1980	22,792,395	1979	22,866,577	1978	22,750,389	1977	22,546,892
1976	22,549,645	1975	22,570,112	1974	22,622,575	1973	22,633,275
1972	22,701,997	1971	22,710,161	1970	22,604,480	1969	21,847,947
1968	6,107,811	1967	6,105,368	1966	6,121,990	1965	6,133,022
1964	6,127,356	1963	6,123,842				

Curve: O1 ASL: 100 SSD: 1.69E+14 IV: 88

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	32,408,634	2003	31,962,428	2002	25,863,963	2001	26,015,097
2000	26,146,165	1999	26,250,880	1998	26,181,385	1997	23,877,341
1996	24,015,228	1995	24,039,538	1994	24,131,019	1993	23,010,061
1992	22,971,746	1991	23,079,447	1990	23,190,907	1989	22,835,427
1988	22,934,344	1987	22,889,440	1986	22,980,748	1985	23,106,924
1984	23,168,196	1983	23,212,731	1982	22,947,351	1981	22,352,522
1980	22,259,103	1979	22,350,338	1978	22,254,204	1977	22,073,372
1976	22,101,806	1975	22,151,695	1974	22,237,790	1973	22,286,775
1972	22,399,074	1971	22,456,969	1970	22,408,131	1969	21,716,394
1968	6,016,374	1967	6,025,967	1966	6,056,212	1965	6,082,765
1964	6,094,909	1963	6,112,387				

Curve: O2 ASL: 100 SSD: 2.26E+14 IV: 101

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	31,813,036	2003	31,389,711	2002	25,312,009	2001	25,481,987
2000	25,631,890	1999	25,755,414	1998	25,704,644	1997	23,418,508
1996	23,573,545	1995	23,614,968	1994	23,723,511	1993	22,619,215
1992	22,597,123	1991	22,720,992	1990	22,848,602	1989	22,509,116
1988	22,623,870	1987	22,594,732	1986	22,701,749	1985	22,843,620
1984	22,920,557	1983	22,980,702	1982	22,730,787	1981	22,151,078
1980	22,072,490	1979	22,178,480	1978	22,097,015	1977	21,930,675
1976	21,973,477	1975	22,037,684	1974	22,138,048	1973	22,201,257
1972	22,327,737	1971	22,399,765	1970	22,364,973	1969	21,686,961
1968	5,995,582	1967	6,008,984	1966	6,043,026	1965	6,073,366
1964	6,089,283	1963	6,110,515				

Curve: O3 ASL: 100 SSD: 5.28E+14 IV: 155

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	29,572,325	2003	29,224,636	2002	23,214,519	2001	23,444,806
2000	23,656,083	1999	23,841,958	1998	23,854,202	1997	21,628,487
1996	21,841,611	1995	21,941,873	1994	22,109,919	1993	21,064,236
1992	21,099,657	1991	21,281,552	1990	21,467,892	1989	21,187,187
1988	21,360,732	1987	21,390,789	1986	21,557,353	1985	21,759,335
1984	21,896,901	1983	22,018,057	1982	21,829,065	1981	21,309,312
1980	21,289,912	1979	21,455,235	1978	21,433,240	1977	21,326,122
1976	21,428,027	1975	21,551,511	1974	21,711,403	1973	21,834,369
1972	22,020,863	1971	22,153,167	1970	22,178,663	1969	21,559,939
1968	5,905,828	1967	5,935,419	1966	5,985,708	1965	6,032,373
1964	6,064,663	1963	6,102,301				

Curve: O4 ASL: 100 SSD: 1.02E+15 IV: 215

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	27,158,870	2003	26,880,289	2002	20,930,307	2001	21,212,698
2000	21,478,340	1999	21,720,746	1998	21,791,322	1997	19,621,716
1996	19,889,031	1995	20,045,379	1994	20,271,287	1993	19,283,292
1992	19,375,970	1991	19,616,684	1990	19,863,597	1989	19,644,392
1988	19,880,278	1987	19,973,992	1986	20,205,459	1985	20,473,799
1984	20,679,069	1983	20,869,084	1982	20,749,492	1981	20,298,560
1980	20,347,650	1979	20,582,183	1978	20,630,043	1977	20,592,931
1976	20,765,148	1975	20,959,570	1974	21,191,072	1973	21,386,264
1972	21,645,582	1971	21,851,276	1970	21,950,417	1969	21,404,312
1968	5,795,818	1967	5,845,133	1966	5,915,277	1965	5,981,947
1964	6,034,348	1963	6,092,181				

Kentucky Power Company
Electric Plant In Service
Geometric Mean Turnover Analysis

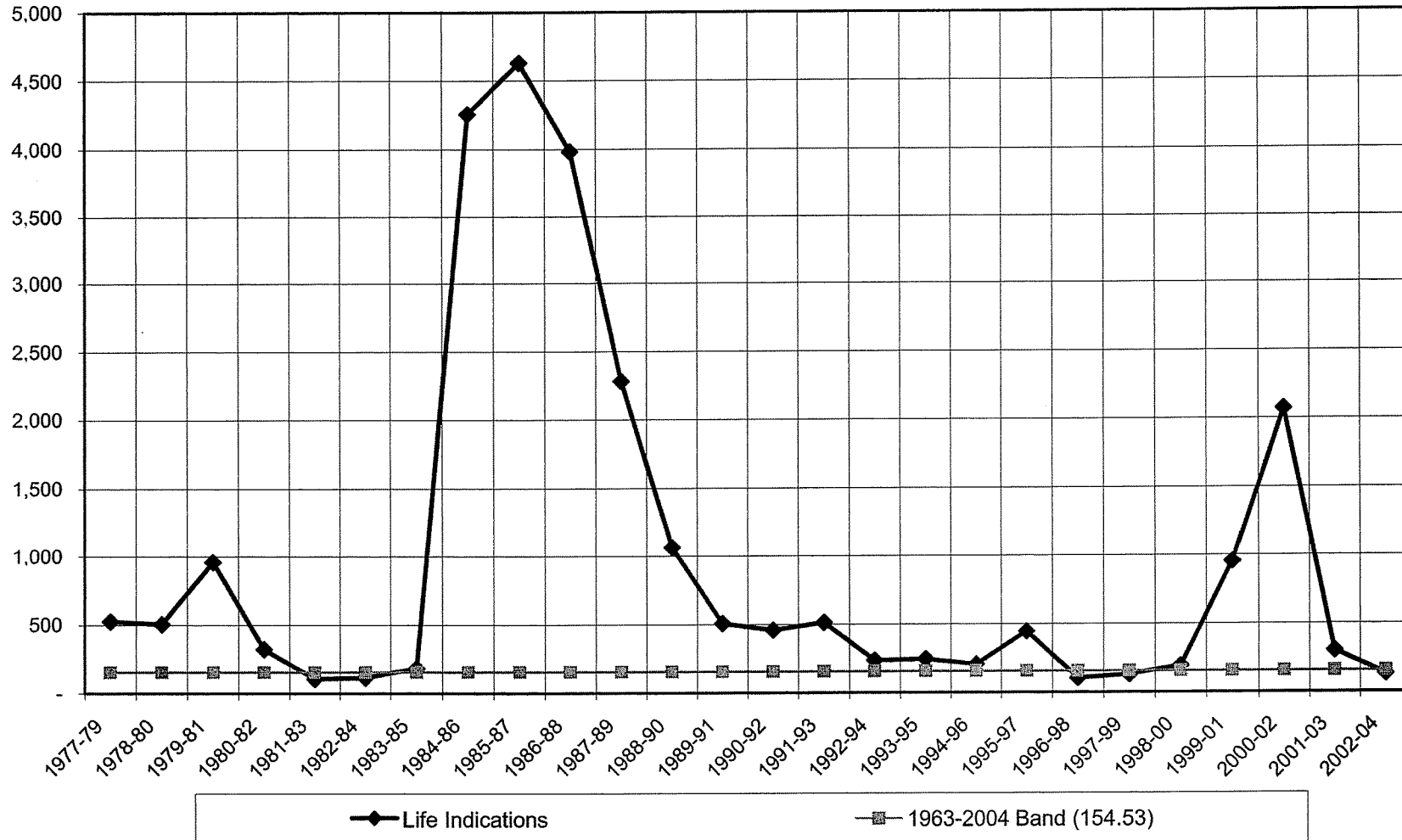
Account 311 - Structures & Improvements

3 Year Band

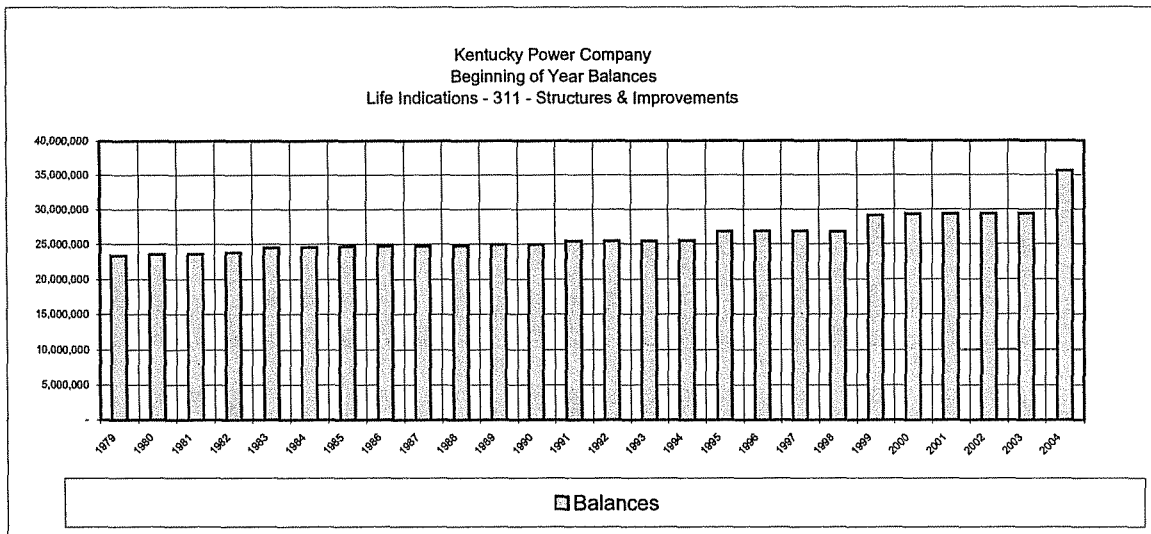
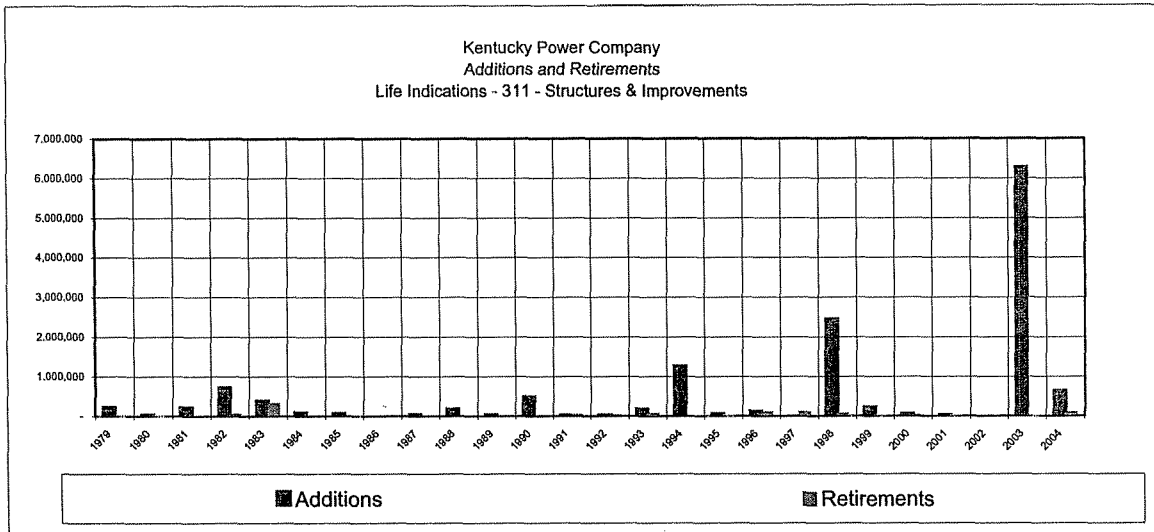
Year	BOY Plant Balance a	Avg. Plant Balance b=(a+(a+1))/2	Single Year Additions c	Single Year Retirements d	Addition Ratio e = c/b	Retirement Ratio f = d/b	Geometric Mean Life Estimate g = 1/sqrt(e*f)	3 Year Band h	Avg. Plant Balance i	Additions j	Retirements k	Addition Ratio l = j/i	Retirement Ratio m = k/l	Geometric Mean Life Estimate n = 1/sqrt(l*m)
1963	-	3,063,853	6,127,706	-	2.00000	-	-							
1964	6,127,706	6,134,303	13,194	-	0.00215	-	-							
1965	6,140,900	6,150,076	18,607	255	0.00303	0.00004	2,823.40	1963-65	15,348,232	6,159,507	255	0.04132	0.00002	387.27
1966	6,159,252	6,157,711	4,255	7,338	0.00069	0.00119	1,102.00	1964-66	18,442,090	36,056	7,593	0.00196	0.00041	1,114.59
1967	6,156,169	6,121,790	575	69,333	0.00009	0.01133	969.56	1965-67	18,429,577	23,437	76,926	0.00127	0.00417	434.04
1968	6,087,411	6,098,052	21,282	-	0.00349	-	-	1966-68	18,377,553	26,112	76,671	0.00142	0.00417	410.73
1969	6,108,693	13,993,880	15,770,374	-	1.12695	-	-	1967-69	26,213,722	15,792,231	69,333	0.00244	0.00264	25.05
1970	21,879,067	22,277,239	803,526	7,182	0.03607	0.00032	293.25	1968-70	42,369,171	16,595,182	7,182	0.39168	0.00017	122.73
1971	22,675,411	22,738,432	163,043	37,002	0.00717	0.00163	292.75	1969-71	59,009,551	16,736,943	44,184	0.28363	0.00075	68.62
1972	22,801,452	22,829,882	56,860	-	0.00249	-	-	1970-72	67,845,553	1,023,429	44,184	0.01508	0.00065	319.05
1973	22,858,312	22,859,615	2,605	-	0.00011	-	-	1971-73	68,427,928	222,508	37,002	0.00325	0.00054	754.13
1974	22,860,917	22,893,130	66,090	1,665	0.00289	0.00007	2,182.38	1972-74	68,582,626	125,555	1,665	0.00183	0.00002	4,743.40
1975	22,925,342	22,939,952	29,219	-	0.00127	-	-	1973-75	68,692,696	97,914	1,665	0.00143	0.00002	5,379.98
1976	22,954,561	22,987,392	65,662	-	0.00286	-	-	1974-76	68,820,473	160,971	1,665	0.00234	0.00002	4,203.75
1977	23,020,223	23,063,973	87,499	-	0.00379	-	-	1975-77	68,991,316	182,380	-	0.00264	-	-
1978	23,107,722	23,244,397	297,729	24,379	0.01281	0.00105	272.83	1976-78	69,295,762	450,890	24,379	0.00651	0.00035	660.94
1979	23,381,072	23,485,728	214,311	5,000	0.00913	0.00021	717.46	1977-79	69,794,097	599,539	29,379	0.00859	0.00042	525.89
1980	23,590,383	23,600,848	27,547	6,618	0.00117	0.00028	1,747.94	1978-80	70,330,972	539,587	35,997	0.00767	0.00051	504.64
1981	23,611,312	23,717,534	212,801	358	0.00897	0.00002	2,717.32	1979-81	70,804,109	454,659	11,976	0.00642	0.00017	959.53
1982	23,823,755	24,159,825	716,535	44,396	0.02966	0.00184	135.46	1980-82	71,478,206	956,883	51,372	0.01339	0.00072	322.39
1983	24,495,894	24,536,916	389,851	307,808	0.01589	0.01254	70.83	1981-83	72,414,274	1,319,187	352,562	0.01822	0.00487	106.18
1984	24,577,937	24,618,260	81,115	469	0.00329	0.00002	3,991.35	1982-84	73,315,000	1,187,501	352,673	0.01620	0.00481	113.29
1985	24,658,583	24,690,151	64,741	1,605	0.00262	0.00007	2,422.12	1983-85	73,845,327	535,707	309,882	0.00725	0.00420	181.24
1986	24,721,719	24,721,719	-	-	-	-	-	1984-86	74,030,130	145,856	2,074	0.00197	0.00003	4,256.40
1987	24,721,719	24,738,714	34,955	966	0.00141	0.00004	4,257.30	1985-87	74,150,584	99,696	2,571	0.00134	0.00003	4,631.53
1988	24,755,708	24,841,191	171,684	718	0.00691	0.00003	2,237.41	1986-88	74,301,624	206,639	1,684	0.00278	0.00002	3,983.10
1989	24,926,674	24,939,427	28,362	2,856	0.00114	0.00011	2,771.02	1987-89	74,519,332	235,001	4,540	0.00315	0.00006	2,281.42
1990	24,952,160	25,192,356	484,041	3,690	0.01921	0.00015	595.09	1988-90	74,972,974	684,087	7,264	0.00912	0.00010	1,063.56
1991	25,432,531	25,424,016	18,357	35,387	0.00072	0.00139	997.52	1989-91	75,555,799	530,760	41,933	0.00702	0.00055	506.45
1992	25,415,501	25,419,790	22,217	13,640	0.00087	0.00054	1,460.23	1990-92	76,036,161	524,615	52,717	0.00690	0.00069	457.22
1993	25,424,078	25,480,034	168,711	56,800	0.00662	0.00223	260.29	1991-93	76,323,839	209,285	105,827	0.00274	0.00139	512.85
1994	25,535,989	26,161,420	1,254,912	4,050	0.04797	0.00015	366.97	1992-94	77,061,243	1,445,840	74,490	0.01876	0.00097	234.82
1995	26,786,851	26,805,179	45,725	9,070	0.00171	0.00034	1,316.25	1993-95	78,446,632	1,469,348	69,920	0.01873	0.00089	244.74
1996	26,823,506	26,832,688	113,294	94,931	0.00422	0.00354	258.74	1994-96	79,799,286	1,413,931	108,051	0.01772	0.00135	200.16
1997	26,841,869	26,790,967	-	101,804	-	0.00380	-	1995-97	80,428,833	159,019	205,805	0.00198	0.00256	444.59
1998	26,740,065	27,936,817	2,448,051	54,548	0.08763	0.00195	76.45	1996-98	81,560,471	2,561,345	251,283	0.03140	0.00308	101.66
1999	29,133,568	29,241,655	220,173	4,000	0.00753	0.00014	985.35	1997-99	83,969,438	2,668,224	160,352	0.03178	0.00191	128.37
2000	29,349,741	29,364,415	46,629	17,282	0.00159	0.00059	1,034.42	1998-00	86,542,886	2,714,853	75,830	0.03137	0.00088	190.74
2001	29,379,088	29,385,133	20,444	8,355	0.00070	0.00028	2,248.39	1999-01	87,991,202	287,246	29,637	0.00326	0.00034	953.66
2002	29,391,177	29,390,809	431	1,168	0.00001	0.00004	41,423.95	2000-02	88,140,356	67,504	26,805	0.00077	0.00030	2,072.06
2003	29,390,440	32,520,757	6,265,695	5,061	0.19267	0.00016	182.62	2001-03	91,296,698	6,286,570	14,584	0.06886	0.00016	301.52
2004	35,651,074	35,929,364	630,676	74,097	0.01755	0.00206	166.21	2002-04	97,840,929	6,896,802	80,326	0.07049	0.00082	131.45
1963-2004	925,375,552	943,479,379	37,209,484	1,001,831	0.03944	0.00106	154.53							

Data Source:

Kentucky Power Company
Geometric Mean 3 Year Rolling Band Analysis
Life Indications - 311 - Structures & Improvements



**Kentucky Power Company
Electric Plant In Service
Additions, Retirements and Balances
Account 311 - Structures & Improvements**



Kentucky Power Company
312 - Boiler Plant Equipment

KENTUCKY POWER COMPANY
DEPRECIATION STUDY AS OF DECEMBER 31, 2004
CALCULATION OF AVERAGE REMAINING LIFE
BIG SANDY PLANT, ACCOUNT 312
RETIREMENT YEARS - UNIT 1 2028; UNIT 2 2034

ANNUAL INTERIM RETIREMENT RATE 0.0150

<u>YEAR</u>	<u>AMOUNT RETIRED</u>	<u>REM. LIFE (YEARS)</u>	<u>DOLLAR YEARS</u>	<u>AVERAGE REM. LIFE</u>
2005	4,868,080	0.5	2,434,040	
2006	4,868,080	1.5	7,302,121	
2007	6,497,604	2.5	16,244,011	
2008	4,843,638	3.5	16,952,731	
2009	11,361,735	4.5	51,127,806	
2010	4,745,866	5.5	26,102,264	
2011	4,745,866	6.5	30,848,130	
2012	4,745,866	7.5	35,593,996	
2013	4,745,866	8.5	40,339,862	
2014	4,745,866	9.5	45,085,728	
2015	4,745,866	10.5	49,831,594	
2016	4,745,866	11.5	54,577,460	
2017	4,745,866	12.5	59,323,326	
2018	4,745,866	13.5	64,069,192	
2019	4,745,866	14.5	68,815,059	
2020	4,745,866	15.5	73,560,925	
2021	4,745,866	16.5	78,306,791	
2022	4,745,866	17.5	83,052,657	
2023	4,745,866	18.5	87,798,523	
2024	4,745,866	19.5	92,544,389	
2025	4,745,866	20.5	97,290,255	
2026	4,745,866	21.5	102,036,121	
2027	4,745,866	22.5	106,781,987	
2028	11,641,100	23.5	273,565,853	
2029	4,642,438	24.5	113,739,721	
2030	4,642,438	25.5	118,382,159	
2031	4,642,438	26.5	123,024,596	
2032	4,642,438	27.5	127,667,034	
2033	4,642,438	28.5	132,309,472	
2034	171,820,680	29.5	5,068,710,045	
TOTALS	324,538,695		7,247,417,849	22.33

INTERIM RETIREMENTS:

Total Plant at 12/31/04	324,538,695
Less Retirement of Unit 1 in 2028	-6,895,234
Less Final Retirement in year 2034	<u>-171,820,680</u>
Total Interim Retirements	<u>145,822,781</u>

Note:

Unit 1 Retirement at 2028 based on 65 year life span from 1963.

SPR Results
Kentucky Power Company
Account: 312 - Boiler Plant Equipment

Curve	Life	Sum of Squared Differences	Index of of Variation
BAND: 1963 - 2004			
R2.5	32	3.55E+14	29
S1.5	33	4.04E+14	31
R2	33	4.27E+14	32
L2	36	4.39E+14	32
S2	33	4.54E+14	33
R3	32	4.57E+14	33
S1	34	4.78E+14	33
L3	33	5.37E+14	35
L1.5	37	5.50E+14	36
S0.5	36	6.31E+14	38
R1.5	35	6.60E+14	39
S3	32	7.52E+14	42
L1	40	7.62E+14	42
S0	38	8.67E+14	45
R1	37	9.80E+14	48
L0.5	43	9.92E+14	48
R4	31	1.02E+15	49
L4	32	1.06E+15	50
S-0.5	42	1.23E+15	54
L0	47	1.28E+15	55
R0.5	41	1.36E+15	56
S4	31	1.58E+15	61
O2	54	1.62E+15	62
O1	48	1.62E+15	62
O3	77	1.74E+15	64
O4	100	1.85E+15	66
L5	31	2.07E+15	70
R5	31	2.27E+15	73
S5	31	2.73E+15	80
S6	31	4.18E+15	99
SQ	32	8.16E+15	138

Minimum Equipment Life Expectancy: 1
Maximum Equipment Life Expectancy: 100
Life Expectancy Increment: 1
Begin Year: 1963
End Year: 2004
Year Fit Increment: 0

Plant Balances

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	313,775,878	2003	310,027,951	2002	141,977,763	2001	139,208,760
2000	138,639,555	1999	136,413,799	1998	134,736,272	1997	125,083,184
1996	128,108,157	1995	128,108,157	1994	123,403,427	1993	112,882,682
1992	109,464,767	1991	107,371,483	1990	106,832,262	1989	105,559,576
1988	104,323,050	1987	102,311,076	1986	100,382,085	1985	100,279,186
1984	98,583,090	1983	97,238,040	1982	95,428,790	1981	92,020,233
1980	91,257,541	1979	90,986,076	1978	87,974,637	1977	84,589,266
1976	83,827,116	1975	80,264,275	1974	79,130,446	1973	78,462,784
1972	78,362,787	1971	77,612,050	1970	75,995,894	1969	73,954,088
1968	16,717,677	1967	16,806,632	1966	16,802,802	1965	16,646,349
1964	16,620,719	1963	16,508,970				

Simulated Balances

Curve: R2.5 ASL: 32 SSD: 3.55E+14 IV: 29

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	313,653,590	2003	312,217,794	2002	133,320,206	2001	134,035,735
2000	137,009,825	1999	137,812,186	1998	139,419,234	1997	132,208,458
1996	135,342,907	1995	125,655,002	1994	117,956,488	1993	108,451,368
1992	104,699,275	1991	103,775,738	1990	104,198,049	1989	103,847,070
1988	103,676,354	1987	102,372,405	1986	100,832,504	1985	100,737,209
1984	100,055,326	1983	99,114,892	1982	97,950,792	1981	93,967,416
1980	91,969,222	1979	91,031,363	1978	87,895,730	1977	84,800,942
1976	83,744,579	1975	79,436,732	1974	78,602,649	1973	78,110,588
1972	78,254,626	1971	77,717,829	1970	76,222,233	1969	73,791,104
1968	16,660,052	1967	16,674,328	1966	16,714,332	1965	16,579,398
1964	16,582,550	1963	16,494,517				

Curve: S1.5 ASL: 33 SSD: 4.04E+14 IV: 31

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	316,560,384	2003	314,142,194	2002	134,454,492	2001	134,575,068
2000	137,009,492	1999	137,342,455	1998	138,561,746	1997	131,057,606
1996	133,992,878	1995	124,199,434	1994	116,489,745	1993	107,057,302
1992	103,445,717	1991	102,710,081	1990	103,351,634	1989	103,238,558
1988	103,313,771	1987	102,254,267	1986	100,949,095	1985	101,070,248
1984	100,579,743	1983	99,802,241	1982	98,770,392	1981	94,889,365
1980	92,963,677	1979	92,066,091	1978	88,940,494	1977	85,829,344
1976	84,730,794	1975	80,359,210	1974	79,442,799	1973	78,850,331
1972	78,879,110	1971	78,216,707	1970	76,591,070	1969	74,032,140
1968	16,826,403	1967	16,812,525	1966	16,822,118	1965	16,655,681
1964	16,627,302	1963	16,508,885				

Curve: R2		ASL: 33		SSD: 4.27E+14		IV: 32	
Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	316,947,914	2003	315,198,454	2002	135,846,341	2001	135,996,185
2000	138,415,916	1999	138,690,174	1998	139,806,783	1997	132,147,935
1996	134,884,899	1995	124,851,781	1994	116,854,572	1993	107,096,761
1992	103,138,126	1991	102,055,577	1990	102,364,741	1989	101,942,147
1988	101,736,523	1987	100,429,172	1986	98,912,013	1985	98,862,428
1984	98,245,947	1983	97,387,179	1982	96,318,083	1981	92,438,631
1980	90,550,807	1979	89,729,477	1978	86,713,413	1977	83,738,606
1976	82,802,236	1975	78,612,397	1974	77,893,413	1973	77,514,654
1972	77,769,610	1971	77,340,454	1970	75,947,342	1969	73,612,152
1968	16,539,004	1967	16,577,509	1966	16,640,982	1965	16,528,515
1964	16,552,940	1963	16,484,968				

Curve: L2		ASL: 36		SSD: 4.39E+14		IV: 32	
Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	320,067,126	2003	317,105,144	2002	136,917,781	2001	136,586,458
2000	138,619,358	1999	138,603,369	1998	139,527,956	1997	131,783,732
1996	134,532,166	1995	124,603,094	1994	116,805,391	1993	107,327,282
1992	103,704,681	1991	102,985,403	1990	103,661,512	1989	103,591,952
1988	103,708,159	1987	102,679,763	1986	101,389,315	1985	101,504,326
1984	100,984,827	1983	100,156,813	1982	99,061,464	1981	95,113,735
1980	93,128,365	1979	92,183,331	1978	89,021,166	1977	85,881,101
1976	84,760,302	1975	80,372,098	1974	79,444,444	1973	78,846,275
1972	78,872,934	1971	78,210,158	1970	76,584,651	1969	74,026,695
1968	16,822,575	1967	16,810,418	1966	16,821,340	1965	16,655,645
1964	16,627,383	1963	16,508,902				

Curve: S2		ASL: 33		SSD: 4.54E+14		IV: 33	
Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	317,188,372	2003	314,946,497	2002	135,462,199	2001	135,796,309
2000	138,449,745	1999	139,002,671	1998	140,437,958	1997	133,140,219
1996	136,266,604	1995	126,643,436	1994	119,077,827	1993	109,758,990
1992	106,227,858	1991	105,538,237	1990	106,191,165	1989	106,055,537
1988	106,075,495	1987	104,930,038	1986	103,510,758	1985	103,492,860
1984	102,841,951	1983	101,886,953	1982	100,664,745	1981	96,584,883
1980	94,456,500	1979	93,357,011	1978	90,034,801	1977	86,736,636
1976	85,464,619	1975	80,936,405	1974	79,883,055	1973	79,175,227
1972	79,111,127	1971	78,377,763	1970	76,700,772	1969	74,106,276
1968	16,874,946	1967	16,841,415	1966	16,836,966	1965	16,661,680
1964	16,628,786	1963	16,508,970				

Curve: R3		ASL: 32		SSD: 4.57E+14		IV: 33	
------------------	--	----------------	--	----------------------	--	---------------	--

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	314,025,242	2003	312,718,093	2002	134,088,514	2001	135,182,663
2000	138,517,849	1999	139,651,924	1998	141,552,743	1997	134,595,863
1996	137,938,727	1995	128,413,851	1994	120,839,847	1993	111,422,256
1992	107,721,028	1991	106,810,298	1990	107,209,420	1989	106,803,558
1988	106,551,280	1987	105,143,969	1986	103,483,711	1985	103,253,647
1984	102,425,212	1983	101,329,604	1982	100,004,502	1981	95,858,003
1980	93,696,865	1979	92,596,002	1978	89,299,331	1977	86,048,057
1976	84,839,532	1975	80,385,532	1974	79,411,934	1973	78,785,488
1972	78,800,368	1971	78,140,428	1970	76,528,972	1969	73,990,895
1968	16,795,034	1967	16,781,480	1966	16,794,951	1965	16,635,006
1964	16,614,703	1963	16,504,851				

Curve: S1 ASL: 34 SSD: 4.78E+14 IV: 33

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	318,961,513	2003	316,245,810	2002	136,233,084	2001	136,016,295
2000	138,106,322	1999	138,092,770	1998	138,968,996	1997	131,131,178
1996	133,748,213	1995	123,657,625	1994	115,677,739	1993	106,006,319
1992	102,190,456	1991	101,287,090	1990	101,798,182	1989	101,591,822
1988	101,610,239	1987	100,529,026	1986	99,235,102	1985	99,397,741
1984	98,975,799	1983	98,289,967	1982	97,368,797	1981	93,613,289
1980	91,823,430	1979	91,067,433	1978	88,084,613	1977	85,113,156
1976	84,146,709	1975	79,896,472	1974	79,087,787	1973	78,587,015
1972	78,690,297	1971	78,085,248	1970	76,501,078	1969	73,971,009
1968	16,786,193	1967	16,788,485	1966	16,809,724	1965	16,650,681
1964	16,626,053	1963	16,508,813				

Curve: L3 ASL: 33 SSD: 5.37E+14 IV: 35

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	313,425,805	2003	310,959,951	2002	131,363,762	2001	131,706,475
2000	134,492,673	1999	135,299,856	1998	137,101,211	1997	130,264,371
1996	133,922,701	1995	124,873,068	1994	117,890,229	1993	109,130,915
1992	106,106,601	1991	105,847,536	1990	106,839,103	1989	106,943,337
1988	107,106,707	1987	106,018,117	1986	104,584,489	1985	104,499,241
1984	103,746,555	1983	102,671,609	1982	101,324,379	1981	97,124,009
1980	94,885,531	1979	93,690,011	1978	90,287,010	1977	86,923,204
1976	85,599,298	1975	81,031,055	1974	79,947,351	1973	79,217,155
1972	79,137,287	1971	78,393,951	1970	76,711,389	1969	74,113,459
1968	16,879,581	1967	16,844,036	1966	16,838,083	1965	16,661,947
1964	16,628,812	1963	16,508,970				

Curve: L1.5 ASL: 37 SSD: 5.50E+14 IV: 36

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	320,347,521	2003	317,394,947	2002	137,096,423	2001	136,562,051
2000	138,376,726	1999	138,129,322	1998	138,811,522	1997	130,815,338
1996	133,307,776	1995	123,122,027	1994	115,070,157	1993	105,347,232

1992	101,499,616	1991	100,585,417	1990	101,104,460	1989	100,918,646
1988	100,964,865	1987	99,912,886	1986	98,641,831	1985	98,822,019
1984	98,411,980	1983	97,730,836	1982	96,810,924	1981	93,057,242
1980	91,272,254	1979	90,527,120	1978	87,561,510	1977	84,611,815
1976	83,671,741	1975	79,454,380	1974	78,686,104	1973	78,233,382
1972	78,392,126	1971	77,848,441	1970	76,327,432	1969	73,857,722
1968	16,707,092	1967	16,722,418	1966	16,757,987	1965	16,614,223
1964	16,605,044	1963	16,502,263				

Curve: S0.5 ASL: 36 SSD: 6.31E+14 IV: 38

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	322,177,978	2003	319,299,212	2002	138,985,977	2001	138,439,862
2000	140,208,484	1999	139,879,731	1998	140,445,747	1997	132,299,303
1996	134,612,392	1995	124,219,123	1994	115,940,786	1993	105,980,837
1992	101,893,784	1991	100,742,779	1990	101,032,514	1989	100,632,092
1988	100,483,515	1987	99,263,011	1986	97,858,201	1985	97,939,190
1984	97,463,811	1983	96,750,886	1982	95,828,034	1981	92,094,365
1980	90,349,762	1979	89,660,326	1978	86,763,021	1977	83,894,208
1976	83,046,509	1975	78,926,706	1974	78,257,669	1973	77,902,501
1972	78,151,531	1971	77,684,629	1970	76,220,582	1969	73,780,575
1968	16,641,527	1967	16,678,845	1966	16,734,009	1965	16,605,857
1964	16,606,470	1963	16,505,570				

Curve: R1.5 ASL: 35 SSD: 6.60E+14 IV: 39

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	320,507,993	2003	318,602,875	2002	138,909,425	2001	138,539,041
2000	140,462,990	1999	140,271,029	1998	140,954,647	1997	132,891,120
1996	135,255,897	1995	124,882,259	1994	116,565,235	1993	106,508,658
1992	102,275,647	1991	100,952,679	1990	101,059,084	1989	100,470,608
1988	100,133,891	1987	98,727,549	1986	97,139,980	1985	97,047,687
1984	96,416,337	1983	95,567,599	1982	94,531,200	1981	90,702,127
1980	88,879,829	1979	88,140,571	1978	85,220,134	1977	82,350,786
1976	81,530,027	1975	77,462,870	1974	76,872,280	1973	76,630,239
1972	77,029,718	1971	76,751,300	1970	75,512,196	1969	73,330,966
1968	16,350,219	1967	16,420,923	1966	16,517,997	1965	16,440,004
1964	16,499,531	1963	16,467,103				

Curve: S3 ASL: 32 SSD: 7.52E+14 IV: 42

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	312,472,535	2003	310,844,087	2002	132,062,841	2001	133,166,820
2000	136,631,864	1999	138,011,906	1998	140,263,797	1997	133,747,086
1996	137,595,196	1995	128,614,785	1994	121,598,615	1993	112,725,225
1992	109,529,142	1991	109,062,302	1990	109,827,951	1989	109,701,175
1988	109,635,382	1987	108,322,902	1986	106,671,513	1985	106,372,765
1984	105,409,287	1983	104,125,529	1982	102,572,925	1981	98,173,984
1980	95,748,261	1979	94,381,237	1978	90,826,358	1977	87,332,277

1976	85,900,686	1975	81,246,764	1974	80,097,526	1973	79,318,942
1972	79,204,313	1971	78,435,765	1970	76,735,000	1969	74,124,956
1968	16,884,039	1967	16,845,177	1966	16,838,203	1965	16,661,947
1964	16,628,812	1963	16,508,970				

Curve: L1 ASL: 40 SSD: 7.62E+14 IV: 42

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	323,904,791	2003	320,768,939	2002	140,194,391	2001	139,313,201
2000	140,773,352	1999	140,167,098	1998	140,489,321	1997	132,132,412
1996	134,269,493	1995	123,737,731	1994	115,351,351	1993	105,312,709
1992	101,176,077	1991	100,004,920	1990	100,300,857	1989	99,928,538
1988	99,826,010	1987	98,664,563	1986	97,327,042	1985	97,479,723
1984	97,077,453	1983	96,435,926	1982	95,579,378	1981	91,903,107
1980	90,204,198	1979	89,550,690	1978	86,678,852	1977	83,823,925
1976	82,980,560	1975	78,857,281	1974	78,179,025	1973	77,813,666
1972	78,055,897	1971	77,590,468	1970	76,141,721	1969	73,736,283
1968	16,623,184	1967	16,656,375	1966	16,709,085	1965	16,581,289
1964	16,586,654	1963	16,496,720				

Curve: S0 ASL: 38 SSD: 8.67E+14 IV: 45

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	323,973,362	2003	320,949,550	2002	140,384,088	2001	139,568,223
2000	141,078,968	1999	140,502,773	1998	140,829,350	1997	132,450,144
1996	134,538,141	1995	123,924,426	1994	115,432,483	1993	105,269,566
1992	100,997,368	1991	99,682,425	1990	99,830,924	1989	99,312,583
1988	99,069,468	1987	97,777,273	1986	96,323,885	1985	96,378,374
1984	95,898,800	1983	95,202,998	1982	94,315,597	1981	90,634,603
1980	88,958,611	1979	88,353,741	1978	85,554,678	1977	82,794,007
1976	82,064,387	1975	78,069,722	1974	77,530,568	1973	77,308,118
1972	77,686,552	1971	77,339,107	1970	75,980,070	1969	73,617,190
1968	16,518,234	1967	16,586,367	1966	16,670,574	1965	16,568,245
1964	16,590,373	1963	16,502,918				

Curve: R1 ASL: 37 SSD: 9.80E+14 IV: 48

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	322,002,632	2003	320,008,372	2002	140,076,347	2001	139,320,688
2000	140,890,338	1999	140,377,561	1998	140,773,830	1997	132,449,203
1996	134,579,827	1995	123,997,734	1994	115,486,898	1993	105,249,997
1992	100,854,506	1991	99,393,743	1990	99,389,273	1989	98,716,393
1988	98,320,588	1987	96,878,173	1986	95,274,395	1985	95,187,102
1984	94,580,730	1983	93,774,356	1982	92,796,473	1981	89,038,209
1980	87,296,565	1979	86,649,599	1978	83,831,350	1977	81,069,819
1976	80,362,917	1975	76,413,815	1974	75,944,594	1973	75,829,383
1972	76,361,430	1971	76,220,598	1970	75,121,026	1969	73,078,215
1968	16,180,693	1967	16,280,606	1966	16,407,885	1965	16,360,909
1964	16,451,921	1963	16,451,181				

Curve: L0.5 ASL: 43 SSD: 9.92E+14 IV: 48

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	324,735,880	2003	321,727,927	2002	141,068,378	2001	140,042,195
2000	141,366,071	1999	140,628,396	1998	140,820,010	1997	132,324,871
1996	134,319,354	1995	123,631,104	1994	115,073,736	1993	104,852,033
1992	100,526,896	1991	99,169,741	1990	99,288,791	1989	98,751,499
1988	98,499,861	1987	97,206,772	1986	95,755,433	1985	95,816,968
1984	95,348,255	1983	94,664,473	1982	93,791,516	1981	90,123,538
1980	88,457,331	1979	87,863,181	1978	85,075,012	1977	82,324,396
1976	81,606,504	1975	77,626,300	1974	77,105,995	1973	76,911,130
1972	77,331,585	1971	77,041,360	1970	75,753,624	1969	73,479,049
1968	16,428,358	1967	16,503,819	1966	16,599,326	1965	16,512,206
1964	16,553,488	1963	16,490,349				

Curve: R4 ASL: 31 SSD: 1.02E+15 IV: 49

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	306,196,817	2003	305,507,493	2002	127,862,053	2001	130,200,016
2000	134,874,910	1999	137,326,462	1998	140,425,585	1997	134,497,786
1996	138,699,897	1995	129,908,688	1994	122,975,863	1993	114,102,642
1992	110,816,218	1991	110,177,857	1990	110,714,464	1989	110,338,286
1988	110,035,979	1987	108,518,690	1986	106,699,238	1985	106,271,013
1984	105,215,477	1983	103,872,323	1982	102,289,953	1981	97,885,041
1980	95,471,561	1979	94,128,826	1978	90,605,112	1977	87,144,842
1976	85,747,023	1975	81,124,589	1974	80,003,243	1973	79,248,389
1972	79,153,126	1971	78,400,033	1970	76,711,078	1969	74,109,806
1968	16,874,533	1967	16,839,174	1966	16,834,618	1965	16,659,997
1964	16,627,909	1963	16,508,737				

Curve: L4 ASL: 32 SSD: 1.06E+15 IV: 50

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	309,863,273	2003	308,041,152	2002	129,283,006	2001	130,658,802
2000	134,640,923	1999	136,740,799	1998	139,837,428	1997	134,168,991
1996	138,742,515	1995	130,290,475	1994	123,595,208	1993	114,868,572
1992	111,696,724	1991	111,171,285	1990	111,816,337	1989	111,520,350
1988	111,250,753	1987	109,715,317	1986	107,838,477	1985	107,326,568
1984	106,172,136	1983	104,724,099	1982	103,034,048	1981	98,522,387
1980	96,005,863	1979	94,567,301	1978	90,957,738	1977	87,423,395
1976	85,963,122	1975	81,288,923	1974	80,125,060	1973	79,335,888
1972	79,213,746	1971	78,440,402	1970	76,736,950	1969	74,125,651
1968	16,884,240	1967	16,845,229	1966	16,838,203	1965	16,661,947
1964	16,628,812	1963	16,508,970				

Curve: S-0.5 ASL: 42 SSD: 1.23E+15 IV: 54

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	325,115,415	2003	322,606,802	2002	142,197,121	2001	141,061,635
2000	142,282,027	1999	141,448,623	1998	141,551,884	1997	132,962,608
1996	134,857,796	1995	124,065,732	1994	115,375,330	1993	104,990,639
1992	100,478,561	1991	98,927,832	1990	98,857,989	1989	98,141,658
1988	97,721,435	1987	96,272,150	1986	94,677,796	1985	94,612,923
1984	94,039,239	1983	93,273,576	1982	92,342,158	1981	88,634,185
1980	86,946,063	1979	86,353,583	1978	83,587,911	1977	80,878,158
1976	80,221,064	1975	76,317,962	1974	75,891,418	1973	75,812,342
1972	76,371,840	1971	76,247,713	1970	75,150,383	1969	73,093,404
1968	16,182,969	1967	16,289,432	1966	16,421,095	1965	16,375,827
1964	16,464,741	1963	16,457,333				

Curve: L0 ASL: 47 SSD: 1.28E+15 IV: 55

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	325,768,274	2003	322,798,342	2002	142,019,094	2001	140,835,189
2000	142,009,347	1999	141,126,701	1998	141,174,959	1997	132,532,019
1996	134,376,874	1995	123,529,443	1994	114,803,324	1993	104,406,935
1992	99,910,512	1991	98,392,325	1990	98,364,126	1989	97,695,245
1988	97,327,798	1987	95,935,560	1986	94,404,782	1985	94,407,521
1984	93,900,925	1983	93,201,306	1982	92,332,497	1981	88,686,466
1980	87,062,707	1979	86,529,847	1978	83,818,579	1977	81,160,796
1976	80,549,514	1975	76,685,032	1974	76,291,394	1973	76,230,590
1972	76,787,225	1971	76,630,809	1970	75,465,533	1969	73,287,942
1968	16,283,201	1967	16,391,082	1966	16,518,563	1965	16,461,824
1964	16,529,889	1963	16,486,154				

Curve: R0.5 ASL: 41 SSD: 1.36E+15 IV: 56

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	323,659,421	2003	321,640,819	2002	141,525,195	2001	140,410,846
2000	141,653,416	1999	140,846,276	1998	140,980,045	1997	132,415,622
1996	134,332,272	1995	123,557,519	1994	114,862,611	1993	104,449,557
1992	99,888,401	1991	98,280,979	1990	98,153,709	1989	97,382,221
1988	96,909,712	1987	95,411,344	1986	93,770,255	1985	93,664,105
1984	93,057,251	1983	92,267,567	1982	91,321,664	1981	87,605,673
1980	85,915,025	1979	85,330,133	1978	82,582,792	1977	79,898,010
1976	79,276,212	1975	75,418,230	1974	75,045,878	1973	75,037,919
1972	75,688,227	1971	75,676,852	1970	74,715,956	1969	72,819,205
1968	16,009,176	1967	16,134,746	1966	16,290,217	1965	16,273,869
1964	16,397,824	1963	16,432,585				

Curve: S4 ASL: 31 SSD: 1.58E+15 IV: 61

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	304,548,634	2003	303,440,135	2002	125,442,240	2001	127,566,412
2000	132,235,468	1999	134,939,749	1998	138,561,164	1997	133,382,237
1996	138,462,045	1995	130,552,501	1994	124,400,312	1993	116,158,265

1992	113,347,730	1991	113,040,321	1990	113,766,625	1989	113,439,965
1988	113,055,104	1987	111,347,534	1986	109,263,356	1985	108,528,776
1984	107,152,025	1983	105,494,516	1982	103,618,218	1981	98,949,335
1980	96,306,893	1979	94,771,629	1978	91,090,364	1977	87,504,495
1976	86,008,753	1975	81,311,689	1974	80,134,689	1973	79,339,089
1972	79,214,453	1971	78,440,472	1970	76,736,950	1969	74,125,651
1968	16,884,240	1967	16,845,229	1966	16,838,203	1965	16,661,947
1964	16,628,812	1963	16,508,970				

Curve: O2 ASL: 54 SSD: 1.62E+15 IV: 62

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	326,271,971	2003	324,100,031	2002	143,764,106	2001	142,350,526
2000	143,318,399	1999	142,261,456	1998	142,168,918	1997	133,397,428
1996	135,125,698	1995	124,180,012	1994	115,323,537	1993	104,757,530
1992	100,052,867	1991	98,315,492	1990	98,073,760	1989	97,202,895
1988	96,645,575	1987	95,075,394	1986	93,374,445	1985	93,220,039
1984	92,576,791	1983	91,761,353	1982	90,799,495	1981	87,075,235
1980	85,382,583	1979	84,803,604	1978	82,069,011	1977	79,402,440
1976	78,805,001	1975	74,976,805	1974	74,639,349	1973	74,673,396
1972	75,373,692	1971	75,419,843	1970	74,523,346	1969	72,696,409
1968	15,928,138	1967	16,064,635	1966	16,232,854	1965	16,230,844
1964	16,370,807	1963	16,423,200				

Curve: O1 ASL: 48 SSD: 1.62E+15 IV: 62

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	326,232,080	2003	324,065,441	2002	143,733,152	2001	142,320,772
2000	143,289,879	1999	142,234,201	1998	142,142,999	1997	133,372,812
1996	135,102,342	1995	124,157,957	1994	115,302,630	1993	104,737,583
1992	100,033,681	1991	98,297,020	1990	98,055,972	1989	97,185,806
1988	96,629,191	1987	95,059,692	1986	93,359,401	1985	93,205,652
1984	92,563,056	1983	91,748,309	1982	90,787,152	1981	87,063,553
1980	85,371,524	1979	84,793,164	1978	82,059,206	1977	79,393,220
1976	78,796,427	1975	74,968,828	1974	74,631,962	1973	74,666,724
1972	75,367,827	1971	75,414,949	1970	74,519,642	1969	72,694,086
1968	15,926,685	1967	16,063,348	1966	16,231,757	1965	16,229,981
1964	16,370,235	1963	16,422,986				

Curve: O3 ASL: 77 SSD: 1.74E+15 IV: 64

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	327,064,713	2003	324,832,259	2002	144,414,258	2001	142,894,051
2000	143,765,561	1999	142,622,164	1998	142,452,022	1997	133,610,060
1996	135,275,493	1995	124,273,143	1994	115,363,679	1993	104,748,463
1992	99,998,338	1991	98,220,345	1990	97,943,744	1989	97,043,708
1988	96,462,126	1987	94,872,368	1986	93,156,347	1985	92,990,953
1984	92,340,743	1983	91,522,364	1982	90,561,034	1981	86,839,799
1980	85,152,536	1979	84,581,743	1978	81,857,469	1977	79,202,715

1976	78,619,237	1975	74,806,280	1974	74,485,233	1973	74,537,742
1972	75,258,455	1971	75,326,809	1970	74,454,110	1969	72,652,063
1968	15,898,646	1967	16,039,647	1966	16,212,789	1965	16,216,062
1964	16,361,665	1963	16,420,079				

Curve: O4 ASL: 100 SSD: 1.85E+15 IV: 66

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	324,866,947	2003	322,818,262	2002	142,513,049	2001	141,034,934
2000	141,952,400	1999	140,858,954	1998	140,742,702	1997	131,955,082
1996	133,675,333	1995	122,727,958	1994	113,869,038	1993	103,299,425
1992	98,591,880	1991	96,857,268	1990	96,626,198	1989	95,774,026
1988	95,242,786	1987	93,705,263	1986	92,042,450	1985	91,932,055
1984	91,338,961	1983	90,579,109	1982	89,677,625	1981	86,016,343
1980	84,388,494	1979	83,877,663	1978	81,213,583	1977	78,618,254
1976	78,093,840	1975	74,339,330	1974	74,076,126	1973	74,187,143
1972	74,967,449	1971	75,096,514	1970	74,284,692	1969	72,542,843
1968	15,825,614	1967	15,979,432	1966	16,165,649	1965	16,182,208
1964	16,341,257	1963	16,413,259				

Curve: L5 ASL: 31 SSD: 2.07E+15 IV: 70

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	302,784,232	2003	301,022,216	2002	122,647,556	2001	124,846,343
2000	130,084,780	1999	133,733,128	1998	138,428,719	1997	134,176,264
1996	139,843,661	1995	132,171,992	1994	126,023,356	1993	117,702,448
1992	114,828,028	1991	114,477,835	1990	115,131,455	1989	114,665,666
1988	114,078,604	1987	112,140,991	1986	109,840,316	1985	108,929,636
1984	107,423,640	1983	105,678,040	1982	103,742,960	1981	99,033,416
1980	96,361,197	1979	94,803,939	1978	91,107,384	1977	87,512,272
1976	86,011,820	1975	81,312,739	1974	80,135,000	1973	79,339,167
1972	79,214,470	1971	78,440,472	1970	76,736,950	1969	74,125,651
1968	16,884,240	1967	16,845,229	1966	16,838,203	1965	16,661,947
1964	16,628,812	1963	16,508,970				

Curve: R5 ASL: 31 SSD: 2.27E+15 IV: 73

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	300,893,442	2003	300,485,524	2002	123,641,480	2001	127,142,025
2000	133,165,153	1999	137,051,838	1998	141,596,702	1997	137,038,236
1996	142,431,735	1995	134,567,963	1994	128,243,286	1993	119,672,355
1992	116,439,372	1991	115,667,206	1990	115,923,895	1989	115,152,208
1988	114,366,163	1987	112,313,196	1986	109,945,700	1985	108,991,249
1984	107,452,766	1983	105,682,541	1982	103,731,432	1981	99,015,128
1980	96,343,723	1979	94,791,474	1978	91,100,575	1977	87,509,471
1976	86,010,985	1975	81,312,570	1974	80,134,982	1973	79,339,167
1972	79,214,470	1971	78,440,472	1970	76,736,950	1969	74,125,651
1968	16,884,240	1967	16,845,229	1966	16,838,203	1965	16,661,947
1964	16,628,812	1963	16,508,970				

Curve: S5 ASL: 31 SSD: 2.73E+15 IV: 80

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	300,242,221	2003	299,195,860	2002	121,783,494	2001	125,014,539
2000	131,184,155	1999	135,579,291	1998	140,849,073	1997	137,063,996
1996	143,136,689	1995	135,781,234	1994	129,772,758	1993	121,343,965
1992	118,115,240	1991	117,255,583	1990	117,364,923	1989	116,410,535
1988	115,425,339	1987	113,170,605	1986	110,608,586	1985	109,478,628
1984	107,791,695	1983	105,904,433	1982	103,867,374	1981	99,092,707
1980	96,384,489	1979	94,810,845	1978	91,108,672	1977	87,512,385
1976	86,011,820	1975	81,312,739	1974	80,135,000	1973	79,339,167
1972	79,214,470	1971	78,440,472	1970	76,736,950	1969	74,125,651
1968	16,884,240	1967	16,845,229	1966	16,838,203	1965	16,661,947
1964	16,628,812	1963	16,508,970				

Curve: S6 ASL: 31 SSD: 4.18E+15 IV: 99

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	296,311,029	2003	293,919,012	2002	116,201,194	2001	120,702,210
2000	129,521,723	1999	137,022,717	1998	144,709,523	1997	141,943,715
1996	147,738,970	1995	139,536,296	1994	132,783,617	1993	123,977,649
1992	120,613,599	1991	119,585,745	1990	119,346,132	1989	117,908,594
1988	116,428,386	1987	113,767,462	1986	110,927,481	1985	109,632,068
1984	107,857,988	1983	105,929,928	1982	103,876,050	1981	99,095,309
1980	96,385,152	1979	94,810,979	1978	91,108,689	1977	87,512,385
1976	86,011,820	1975	81,312,739	1974	80,135,000	1973	79,339,167
1972	79,214,470	1971	78,440,472	1970	76,736,950	1969	74,125,651
1968	16,884,240	1967	16,845,229	1966	16,838,203	1965	16,661,947
1964	16,628,812	1963	16,508,970				

Curve: SQ ASL: 32 SSD: 8.16E+15 IV: 138

Year	Balance	Year	Balance	Year	Balance	Year	Balance
2004	295,764,290	2003	290,497,085	2002	108,979,495	2001	108,261,210
2000	164,576,687	1999	161,685,066	1998	159,751,307	1997	149,372,875
1996	149,406,010	1995	136,917,606	1994	143,027,219	1993	131,034,765
1992	124,997,363	1991	121,974,391	1990	120,470,608	1989	118,356,551
1988	116,576,327	1987	113,806,915	1986	110,936,088	1985	109,633,539
1984	107,858,173	1983	105,929,947	1982	103,876,050	1981	99,095,309
1980	96,385,152	1979	94,810,979	1978	91,108,689	1977	87,512,385
1976	86,011,820	1975	81,312,739	1974	80,135,000	1973	79,339,167
1972	79,214,470	1971	78,440,472	1970	76,736,950	1969	74,125,651
1968	16,884,240	1967	16,845,229	1966	16,838,203	1965	16,661,947
1964	16,628,812	1963	16,508,970				

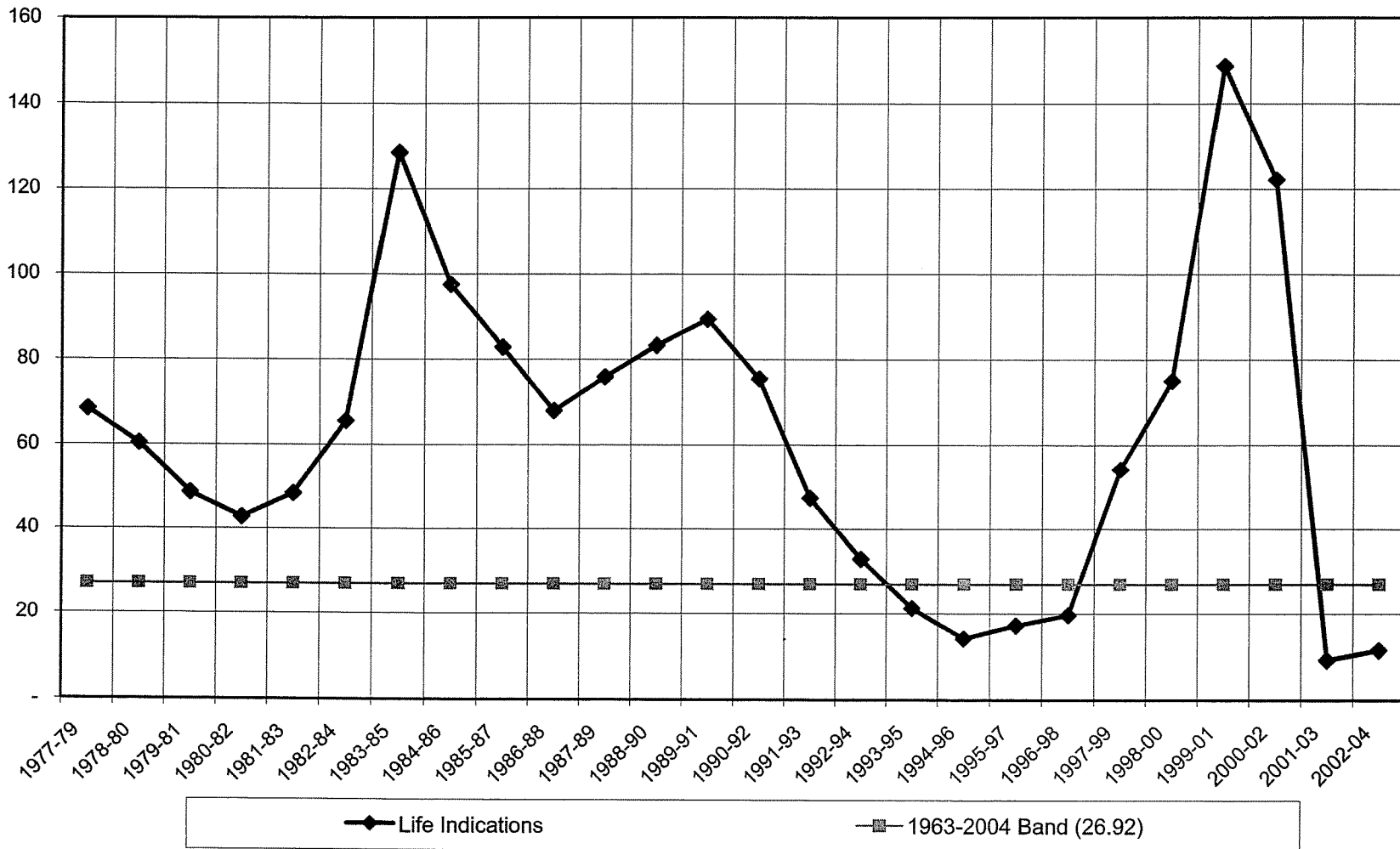
Kentucky Power Company
Electric Plant In Service
Geometric Mean Turnover Analysis

Account 312 - Boiler Plant Equipment

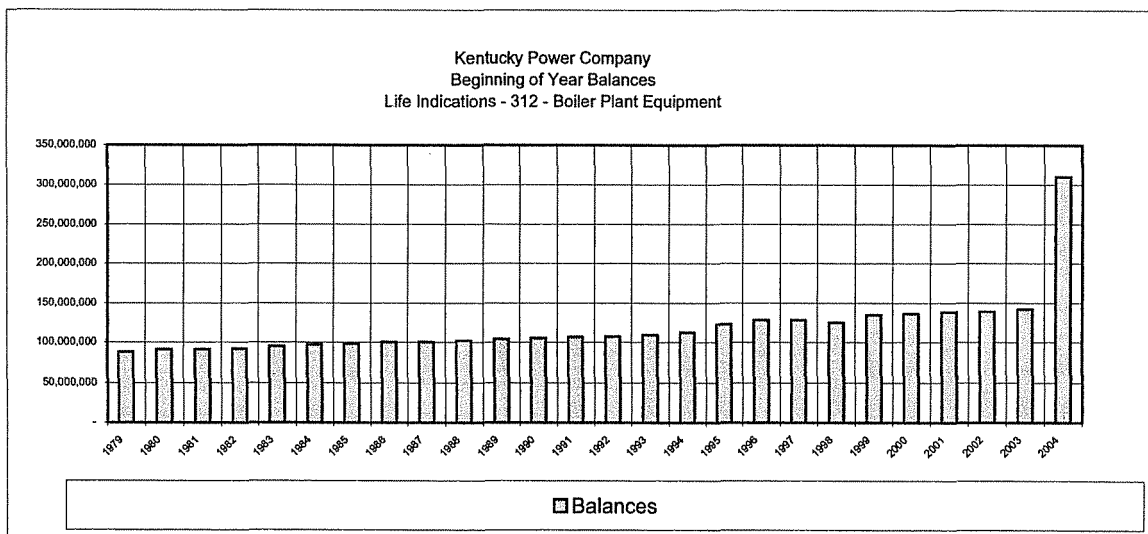
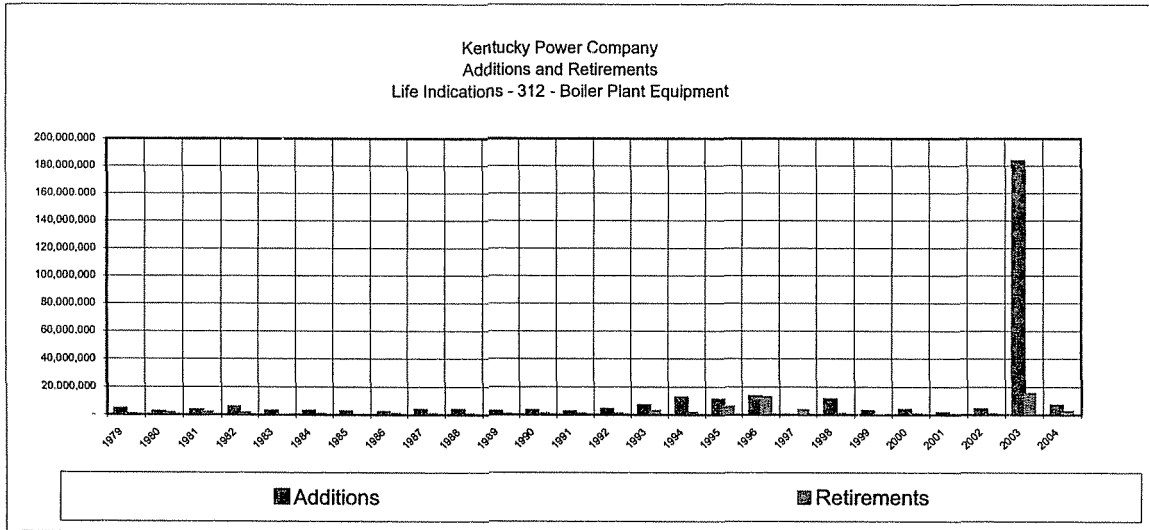
Year	3 Year Band													
	BOY Plant Balance a	Avg. Plant Balance b=(a+(a+1))/2	Single Year Additions c	Single Year Retirements d	Addition Ratio e = c/b	Retirement Ratio f = d/b	Geometric Mean Life Estimate g = 1/sqrt(f*e)	3 Year Band h	Avg. Plant Balance i	Additions j	Retirements k	Addition Ratio l = j/i	Retirement Ratio m = k/i	Geometric Mean Life Estimate n = 1/sqrt(l*m)
1963	-	8,254,485	16,508,970	-	2.00000	-	-							
1964	16,508,970	16,564,845	119,842	8,093	0.00723	0.00049	531.90							
1965	16,620,719	16,633,534	33,135	7,505	0.00199	0.00045	1,054.79	1963-65	41,452,864	16,661,947	15,598	0.40195	0.00038	81.31
1966	16,646,349	16,724,576	176,256	19,803	0.01054	0.00118	283.09	1964-66	49,922,954	329,233	35,401	0.00659	0.00071	462.42
1967	16,802,802	16,804,717	7,026	3,196	0.00042	0.00019	3,546.29	1965-67	50,162,827	216,417	30,504	0.00431	0.00061	617.39
1968	16,806,632	16,762,155	39,011	127,966	0.00233	0.00763	237.24	1966-68	50,291,447	222,293	150,965	0.00442	0.00300	274.53
1969	16,717,677	45,335,883	57,241,411	5,000	1.26261	0.00011	84.74	1967-69	76,902,754	57,287,448	136,162	0.72605	0.00173	28.25
1970	73,954,088	74,974,991	2,611,299	569,493	0.03483	0.00760	61.48	1968-70	137,073,028	59,891,721	702,459	0.43693	0.00512	21.13
1971	75,995,894	76,803,972	1,703,522	87,366	0.02218	0.00114	199.09	1969-71	197,114,846	61,556,232	661,859	0.31229	0.00336	30.88
1972	77,612,050	77,987,419	773,998	23,261	0.00992	0.00030	581.22	1970-72	229,766,382	5,088,819	680,120	0.02215	0.00296	123.51
1973	78,362,787	78,412,786	124,697	24,700	0.00159	0.00031	1,412.90	1971-73	233,204,176	2,602,217	135,327	0.01116	0.00058	392.98
1974	78,462,784	78,796,615	795,833	128,171	0.01010	0.00163	246.72	1972-74	235,196,819	1,694,528	176,132	0.00720	0.00075	430.51
1975	79,130,446	79,697,361	1,177,739	43,910	0.01478	0.00055	350.46	1973-75	236,906,761	2,098,269	196,781	0.00886	0.00083	368.68
1976	80,264,275	82,045,696	4,699,081	1,136,240	0.05727	0.01385	35.51	1974-76	240,539,671	6,672,653	1,308,321	0.02774	0.00544	81.41
1977	83,627,116	84,208,191	1,500,565	738,415	0.01782	0.00877	80.00	1975-77	245,951,247	7,377,385	1,918,565	0.03000	0.00780	65.37
1978	84,589,266	86,281,952	3,596,304	210,933	0.04168	0.00244	99.06	1976-78	252,535,838	9,795,950	2,085,588	0.03879	0.00826	55.87
1979	87,974,637	89,480,357	3,702,290	690,851	0.04138	0.00772	55.95	1977-79	259,970,499	8,799,159	1,640,199	0.03385	0.00631	68.43
1980	90,986,076	91,121,809	1,574,173	1,302,708	0.01728	0.01430	63.63	1978-80	266,884,117	8,872,767	2,204,492	0.03325	0.00826	60.34
1981	91,257,541	91,638,887	2,710,157	1,947,465	0.02957	0.02125	39.89	1979-81	272,241,052	7,986,620	3,941,024	0.02934	0.01448	48.53
1982	92,020,233	93,724,512	4,780,741	1,372,184	0.05101	0.01464	36.59	1980-82	276,485,207	9,065,071	4,622,357	0.03279	0.01672	42.71
1983	95,428,790	96,333,415	2,053,897	244,647	0.02132	0.00254	135.90	1981-83	281,696,814	9,544,795	3,564,296	0.03388	0.01265	48.30
1984	97,238,040	97,910,565	1,928,226	583,176	0.01969	0.00596	92.33	1982-84	287,968,492	8,762,864	2,200,007	0.03043	0.00764	65.59
1985	98,583,090	99,431,138	1,775,366	79,270	0.01786	0.00080	265.05	1983-85	293,675,118	5,757,489	907,093	0.01960	0.00309	128.51
1986	100,279,186	100,330,636	1,302,549	1,199,650	0.01298	0.01196	80.26	1984-86	297,672,339	5,006,141	1,862,096	0.01682	0.00626	97.50
1987	100,382,085	101,346,581	2,870,827	941,836	0.02833	0.00929	61.63	1985-87	301,108,354	5,948,742	2,220,756	0.01976	0.00738	82.84
1988	102,311,076	103,317,063	2,769,412	757,438	0.02680	0.00733	71.34	1986-88	304,994,279	6,942,788	2,898,924	0.02276	0.00950	75.89
1989	104,323,050	104,941,313	1,780,224	543,698	0.01696	0.00518	106.67	1987-89	309,604,957	7,420,463	2,242,972	0.02397	0.00724	76.98
1990	105,559,576	106,195,919	2,114,057	841,371	0.01991	0.00792	79.63	1988-90	314,454,295	6,663,693	2,142,507	0.02119	0.00681	83.22
1991	106,832,262	107,101,873	1,503,783	964,562	0.01404	0.00901	88.93	1989-91	318,239,105	5,388,064	2,349,631	0.01696	0.00738	89.36
1992	107,371,483	108,418,125	3,022,972	929,688	0.02788	0.00858	64.67	1990-92	321,715,917	6,640,812	2,735,621	0.02064	0.00850	75.48
1993	109,464,767	111,173,725	6,037,402	2,619,487	0.05431	0.02356	27.96	1991-93	326,693,722	10,564,157	4,513,737	0.03234	0.01382	47.31
1994	112,882,682	118,143,055	11,992,454	1,471,709	0.10151	0.01246	28.12	1992-94	337,734,904	21,052,828	5,020,884	0.06234	0.01487	32.85
1995	123,403,427	125,755,792	10,399,357	5,694,627	0.08269	0.04528	16.34	1993-95	355,072,571	28,429,213	9,785,823	0.08007	0.02756	21.29
1996	128,108,157	128,108,157	12,608,246	12,608,246	0.09842	0.09842	10.16	1994-96	372,007,004	35,000,057	19,774,582	0.09408	0.05316	14.14
1997	128,108,157	126,595,671	-	3,024,973	-	0.02389	-	1995-97	380,459,620	23,007,603	21,327,846	0.06047	0.05606	17.18
1998	125,083,184	129,909,728	10,554,688	901,600	0.08125	0.00694	42.11	1996-98	384,613,556	23,162,934	16,534,819	0.06022	0.04299	19.65
1999	134,736,272	135,575,036	1,940,785	263,258	0.01432	0.00194	189.67	1997-99	392,080,434	12,495,473	4,189,831	0.03187	0.01069	54.19
2000	136,413,799	137,526,677	2,930,632	704,876	0.02131	0.00513	95.69	1998-00	403,011,441	15,426,105	1,869,734	0.03828	0.00464	75.04
2001	138,639,555	138,924,158	925,934	356,729	0.00667	0.00257	241.72	1999-01	412,025,870	5,797,351	1,324,863	0.01407	0.00322	148.67
2002	139,208,760	140,593,262	3,329,584	560,581	0.02368	0.00399	102.91	2000-02	417,044,096	7,186,150	1,622,186	0.01723	0.00389	122.15
2003	141,977,763	226,002,857	183,221,112	15,170,924	0.81070	0.06713	4.29	2001-03	505,520,276	187,476,630	16,088,234	0.37086	0.03183	9.20
2004	310,027,951	311,901,915	6,041,203	2,293,276	0.01937	0.00735	83.80	2002-04	678,498,033	192,591,899	18,024,781	0.28385	0.02657	11.52
1963-2004	3,920,903,454	4,077,791,393	374,978,760	61,202,882	0.09196	0.01501	26.92							

Data Source:

Kentucky Power Company
Geometric Mean 3 Year Rolling Band Analysis
Life Indications - 312 - Boiler Plant Equipment



**Kentucky Power Company
Electric Plant In Service
Additions, Retirements and Balances
Account 312 - Boiler Plant Equipment**



Kentucky Power Company
314 - Turbo-Generator Units

KENTUCKY POWER COMPANY
DEPRECIATION STUDY AS OF DECEMBER 31, 2004
CALCULATION OF AVERAGE REMAINING LIFE
BIG SANDY PLANT, ACCOUNT 314
RETIREMENT YEARS - UNIT 1 2028; UNIT 2 2034

ANNUAL INTERIM RETIREMENT RATE 0.0127

<u>YEAR</u>	<u>AMOUNT RETIRED</u>	<u>REM. LIFE (YEARS)</u>	<u>DOLLAR YEARS</u>	<u>AVERAGE REM. LIFE</u>
2005	927,595	0.5	463,798	
2006	927,595	1.5	1,391,393	
2007	927,595	2.5	2,318,988	
2008	927,595	3.5	3,246,583	
2009	927,595	4.5	4,174,178	
2010	927,595	5.5	5,101,773	
2011	927,595	6.5	6,029,368	
2012	927,595	7.5	6,956,963	
2013	927,595	8.5	7,884,558	
2014	927,595	9.5	8,812,153	
2015	927,595	10.5	9,739,748	
2016	927,595	11.5	10,667,343	
2017	927,595	12.5	11,594,939	
2018	927,595	13.5	12,522,534	
2019	927,595	14.5	13,450,129	
2020	927,595	15.5	14,377,724	
2021	927,595	16.5	15,305,319	
2022	927,595	17.5	16,232,914	
2023	927,595	18.5	17,160,509	
2024	927,595	19.5	18,088,104	
2025	927,595	20.5	19,015,699	
2026	927,595	21.5	19,943,294	
2027	927,595	22.5	20,870,889	
2028	6,402,451	23.5	150,457,600	
2029	858,064	24.5	21,022,578	
2030	858,064	25.5	21,880,643	
2031	858,064	26.5	22,738,707	
2032	858,064	27.5	23,596,771	
2033	858,064	28.5	24,454,836	
2034	41,011,523	29.5	1,209,839,926	
TOTALS	73,038,983		1,719,339,961	23.54

INTERIM RETIREMENTS:

Total Plant at 12/31/04	73,038,983
Less Retirement of Unit 1 in 2028	-5,474,856
Less Final Retirement in year 2034	<u>-41,011,523</u>
Total Interim Retirements	<u>26,552,604</u>

Note:

Unit 1 Retirement at 2028 based on 65 year life span from 1963.