

APPENDIX C8 - SOLID FUELS, WESTERN EUROPE 100 TO > 1000 MW

**ANNUAL UNAVAILABILITY
OF STEAM TURBINE UNITS
MORE THAN
ONE YEAR OLD (%)**

**Western Europe*
100 to > 1000 MW
Solid fuels**

AA2510YY		1997	1998	1999	Average
100 to 199 MW	MW	10839	3743	3351	5978
	nb	79	28	25	44
	PUF	7.9	4.5	8.2	7.3
	UUF	5.1	3.1	6.2	4.9
	EAF	87.0	92.4	85.6	87.8
200 to 299 MW	MW	13706	8917	7997	10207
	nb	53	34	31	39
	PUF	9.0	13.2	9.5	10.4
	UUF	4.7	5.2	9.2	6.0
	EAF	86.3	81.6	81.3	83.6
300 to 399 MW	MW	16150	6551	6870	9857
	nb	49	20	21	30
	PUF	6.2	8.3	9.6	7.4
	UUF	4.0	1.7	2.2	3.1
	EAF	89.8	90.0	88.2	89.5
400 to 599 MW	MW	15331	6082	6082	9165
	nb	30	11	11	17
	PUF	7.2	8.4	9.8	8.0
	UUF	3.9	6.2	9.2	5.6
	EAF	88.9	85.4	81.0	86.4
600 to 799 MW	MW	12663			
	nb	19			
	PUF	11.5			
	UUF	5.8			
	EAF	82.7			
100 to > 1000 MW	MW	69569	25293	24300	39721
	nb	231	93	88	137
	PUF	8.1	9.5	9.4	8.7
	UUF	4.7	4.2	6.8	5.0
	EAF	87.2	86.3	83.8	86.3

*List of countries : Austria + Belgium + Germany + Denmark + Spain + France + Ireland + Italy + Netherlands + Portugal

APPENDIX C9 - LIQUID AND GASEOUS FUELS, WESTERN EUROPE, 100 TO > 1000 MW

**ANNUAL UNAVAILABILITY
OF STEAM TURBINE UNITS
MORE THAN
ONE YEAR OLD (%)**
**Western Europe*
100 to > 1000 MW
Liquid and gaseous fuels**

AA2610YY		1997	1998	1999	Average
100 to 199 MW	MW	6261	5644	4270	5392
	nb	47	42	31	40
	PUF	11.4	9.0	10.4	10.3
	UUF	4.7	3.8	4.7	4.4
	EAF	83.9	87.2	84.9	85.3
200 to 299 MW	MW	6845	7074	4702	6207
	nb	26	27	18	24
	PUF	6.3	8.4	4.9	6.7
	UUF	4.4	4.2	3.8	4.2
	EAF	89.3	87.4	91.3	89.1
300 to 399 MW	MW	13958	10497	8967	11141
	nb	45	34	29	36
	PUF	13.2	13.6	13.6	13.4
	UUF	5.2	4.2	2.0	4.0
	EAF	81.6	82.2	84.4	82.6
400 to 599 MW	MW	4620	3576	4161	4119
	nb	9	7	8	8
	PUF	9.2	0.6	0.8	3.9
	UUF	2.4	1.3	9.2	4.4
	EAF	88.4	98.1	90.0	91.7
600 to 799 MW	MW	9114	7826	7826	8255
	nb	14	12	12	13
	PUF	20.8	29.2	9.6	19.9
	UUF	4.4	4.3	5.1	4.6
	EAF	74.8	66.5	85.3	75.5
100 to > 1000 MW	MW	40798	34617	29926	35114
	nb	141	122	98	120
	PUF	13.0	14.0	8.9	12.2
	UUF	4.5	3.9	4.5	4.3
	EAF	82.5	82.1	86.6	83.5

*List of countries : Austria + Belgium + Switzerland + Germany + Denmark + Spain + France + Ireland + Italy + Netherlands + Portugal

APPENDIX C10 - FOSSIL FUELS, OTHER COUNTRIES, 100 TO > 1000 MW

**ANNUAL UNAVAILABILITY
OF STEAM TURBINE UNITS
MORE THAN
ONE YEAR OLD (%)**

**Other countries*
100 to > 1000 MW
Fossil fuels**

AA2710YY		1997	1998	1999	Average
100 to 199 MW	MW	17936	18212	17968	18039
	nb	128	128	126	127
	PUF	10.5	9.7	11.4	10.5
	UUF	5.9	7.5	6.7	6.7
	EAF	83.6	82.8	81.9	82.8
200 to 299 MW	MW	31383	30700	31552	31212
	nb	146	143	147	145
	PUF	15.5	15.1	15.3	15.3
	UUF	6.1	6.3	7.4	6.6
	EAF	78.4	78.6	77.3	78.1
300 to 399 MW	MW	36400	36730	37060	36730
	nb	110	111	112	111
	PUF	9.8	9.8	10.9	10.2
	UUF	7.8	8.0	7.3	7.7
	EAF	82.4	82.2	81.8	82.1
400 to 599 MW	MW	34812	35362	35362	35179
	nb	66	67	67	67
	PUF	7.3	7.1	9.2	7.9
	UUF	3.6	3.2	3.6	3.5
	EAF	89.1	89.7	87.2	88.6
600 to 799 MW	MW	13092	14304	14916	14104
	nb	21	23	24	23
	PUF	4.5	6.8	6.5	6.0
	UUF	4.8	2.2	1.2	2.6
	EAF	90.7	91.0	92.3	91.4
100 to > 1000 MW	MW	133623	135308	136858	135263
	nb	471	472	476	473
	PUF	10.0	10.0	11.1	10.4
	UUF	5.8	5.7	5.6	5.7
	EAF	84.2	84.3	83.3	83.9

*List of countries : Argentina + Czech Rep. + Egypt + China (HK) + Croatia + Hungary + Indonesia + Israel + Jordan + Mexico + New Zealand + Pakistan + Poland + Romania + Syrian Arab Rep. + Thailand + Taiwan + Venezuela + South Africa

APPENDIX C11 - SOLID FUELS, OTHER COUNTRIES, 100 TO > 1000 MW

ANNUAL UNAVAILABILITY
OF STEAM TURBINE UNITS
MORE THAN
ONE YEAR OLD (%)Other countries*
100 to > 1000 MW
Solid fuels

AA2810YY		1997	1998	1999	Average
100 to 199 MW	MW	7132	6821	6381	6778
	nb	52	49	45	49
	PUF	10.3	9.0	13.2	10.8
	UUF	3.1	2.4	3.5	3.0
	EAF	86.6	88.6	83.3	86.2
200 to 299 MW	MW	18800	19035	19027	18954
	nb	91	92	92	92
	PUF	15.3	15.1	13.7	14.7
	UUF	3.8	3.2	4.7	3.9
	EAF	80.9	81.7	81.6	81.4
300 to 399 MW	MW	17310	17640	17970	17640
	nb	52	53	54	53
	PUF	11.0	9.3	10.9	10.4
	UUF	6.7	5.5	6.3	6.2
	EAF	82.3	85.2	82.8	83.4
400 to 599 MW	MW	26686	27236	27236	27053
	nb	50	51	51	51
	PUF	6.8	6.5	8.3	7.2
	UUF	3.1	3.1	3.0	3.1
	EAF	90.1	90.4	88.7	89.7
600 to 799 MW	MW	11892	13104	13716	12904
	nb	19	21	22	21
	PUF	4.3	6.8	6.7	6.0
	UUF	5.0	2.4	1.1	2.7
	EAF	90.7	90.8	92.2	91.3
100 to > 1000 MW	MW	81820	83836	84330	83329
	nb	264	266	264	265
	PUF	9.6	9.3	10.2	9.7
	UUF	4.3	3.4	3.8	3.9
	EAF	86.1	87.3	86.0	86.4

*List of countries : Czech Rep. + China (HK) + Croatia + Hungary + Indonesia + Mexico + Poland + Romania + Thailand + Taiwan + South Africa

APPENDIX C12 - LIQUID AND GASEOUS FUELS, OTHER COUNT., 100 TO > 1000 MW

AA2910YY		ANNUAL UNAVAILABILITY OF STEAM TURBINE UNITS MORE THAN ONE YEAR OLD (%)				Average
		1997	1998	1999	Other countries* 100 to > 1000 MW Liquid and gaseous fuels	
100 to 199 MW	MW	8764	9351	9547	9221	
	nb	61	64	66	64	
	PUF	11.1	10.5	10.0	10.5	
	UUF	7.2	10.7	7.9	8.6	
	EAF	81.7	78.8	82.1	80.9	
200 to 299 MW	MW	10823	9905	10765	10498	
	nb	47	43	47	46	
	PUF	15.6	15.4	18.6	16.6	
	UUF	10.5	11.9	12.8	11.7	
	EAF	73.9	72.7	68.6	71.7	
300 to 399 MW	MW	13930	13930	13930	13930	
	nb	42	42	42	42	
	PUF	8.0	10.1	11.4	9.9	
	UUF	10.7	12.5	10.6	11.3	
	EAF	81.3	77.4	78.0	78.8	
400 to 599 MW	MW	5826	5826	5826	5826	
	nb	12	12	12	12	
	PUF	8.4	10.3	12.2	10.3	
	UUF	6.3	4.5	6.8	5.9	
	EAF	85.3	85.2	81.0	83.8	
600 to 799 MW	MW	1200	1200	1200	1200	
	nb	2	2	2	2	
	PUF	5.8	7.2	3.8	5.6	
	UUF	2.5	0.4	1.7	1.5	
	EAF	91.7	92.4	94.5	92.9	
100 to > 1000 MW	MW	40543	40212	41268	40674	
	nb	164	163	169	165	
	PUF	10.7	11.4	12.9	11.7	
	UUF	9.0	10.4	9.8	9.7	
	EAF	80.3	78.2	77.3	78.6	

*List of countries : Argentina + Croatia + Hungary + Indonesia + Jordan + Mexico + New Zealand + Pakistan + Romania + Syrian Arab Rep. + Thailand + Taiwan + Venezuela

APPENDIX C13 - FOSSIL FUELS, JAPAN, 100 TO > 1000 MW

**ANNUAL UNAVAILABILITY
OF STEAM TURBINE UNITS
MORE THAN
ONE YEAR OLD (%)**

Japan*
100 to > 1000 MW
Fossil fuels

AA3810YY		1997	1998	1999	Average
300 to 399 MW	MW	16850	16850	17200	16967
	nb	47	48	48	48
	PUF	17.5	15.3	16.3	16.4
	UUF	0.9	0.4	1.0	0.8
	EAF	81.6	84.3	82.7	82.8
400 to 599 MW	MW	16984	16984	16984	16984
	nb	35	35	35	35
	PUF	13.7	16.2	11.2	13.7
	UUF	0.4	0.7	1.7	0.9
	EAF	85.9	83.1	87.1	85.4
600 to 799 MW	MW	30600	30600	31300	30833
	nb	49	49	50	49
	PUF	16.7	17.4	15.1	16.4
	UUF	1.0	1.3	1.0	1.1
	EAF	82.3	81.3	83.9	82.5
800 to 999 MW	MW	3416	3416	3416	3416
	nb	4	4	4	4
	PUF	16.4	9.9	24.1	16.8
	UUF	0.2	0	0.7	0.3
	EAF	83.4	90.1	75.2	82.9
> 1000 MW	MW	10000	12000	14000	12000
	nb	10	12	14	12
	PUF	21.5	19.2	17.3	19.1
	UUF	1.0	1.5	0.4	0.9
	EAF	77.5	79.3	82.3	80.0
100 to > 1000 MW	MW	77850	79850	82900	80200
	nb	145	148	151	148
	PUF	16.8	16.6	15.3	16.2
	UUF	0.8	0.9	1.0	0.9
	EAF	82.4	82.5	83.7	82.9

*List of countries : Japan

APPENDIX C14 - SOLID FUELS, JAPAN, 100 TO > 1000 MW

**ANNUAL UNAVAILABILITY
OF STEAM TURBINE UNITS
MORE THAN
ONE YEAR OLD (%)**

<p>Japan* 100 to > 1000 MW Solid fuels</p>
--

AA3910YY		1997	1998	1999	Average
300 to 399 MW	MW	700	700	700	700
	nb	2	2	2	2
	PUF	21.2	13.0	23.5	19.2
	UUF	1.4	0.2	1.7	1.1
	EAF	77.4	86.8	74.8	79.7
400 to 599 MW	MW	3000	3000	3000	3000
	nb	6	6	6	6
	PUF	9.5	14.8	10.4	11.6
	UUF	0.5	1.2	1.2	1.0
	EAF	90.0	84.0	88.4	87.4
600 to 799 MW	MW	6000	6000	6700	6233
	nb	9	9	10	9
	PUF	10.1	16.1	13.2	13.1
	UUF	0.3	1.8	0.4	0.8
	EAF	89.6	82.1	86.4	86.1
> 1000 MW	MW	1000	3000	5000	3000
	nb	1	3	5	3
	PUF	4.2	24.6	10.0	14.2
	UUF	0	1.0	0.5	0.6
	EAF	95.8	74.4	89.5	85.2
100 to > 1000 MW	MW	10700	12700	15400	12933
	nb	18	20	23	20
	PUF	10.1	17.6	12.1	13.4
	UUF	0.4	1.4	0.6	0.8
	EAF	89.5	81.0	87.3	85.8

*List of countries : Japan

APPENDIX C15 - LIQUID AND GASEOUS FUELS, JAPAN, 100 TO > 1000 MW

**ANNUAL UNAVAILABILITY
OF STEAM TURBINE UNITS
MORE THAN
ONE YEAR OLD (%)**

Japan*
100 to > 1000 MW
Liquid and gaseous fuels

AA4210NW		1997	1998	1999	Average
300 to 399 MW	MW	16150	16150	16500	16267
	nb	45	45	46	45
	PUF	17.4	15.4	16.0	16.3
	UUF	0.9	0.4	1.0	0.8
	EAF	81.7	84.2	83.0	82.9
400 to 599 MW	MW	13984	13984	13984	13984
	nb	29	29	29	29
	PUF	14.6	16.5	11.4	14.2
	UUF	0.3	0.6	1.8	0.9
	EAF	85.1	82.9	86.8	84.9
600 to 799 MW	MW	24600	24600	24600	24600
	nb	40	40	40	40
	PUF	18.3	17.7	15.6	17.2
	UUF	1.1	1.2	1.1	1.1
	EAF	80.6	81.1	83.3	81.7
800 to 999 MW	MW	3416	3416	3416	3416
	nb	4	4	4	4
	PUF	16.4	9.9	24.1	16.8
	UUF	0.2	0	0.7	0.3
	EAF	83.4	90.1	75.2	82.9
> 1000 MW	MW	9000	9000	9000	9000
	nb	9	9	9	9
	PUF	23.4	17.4	21.4	20.7
	UUF	1.1	1.7	0.3	1.0
	EAF	75.5	80.9	78.3	78.3
100 to > 1000 MW	MW	67150	67150	67500	67267
	nb	127	127	128	127
	PUF	17.9	16.5	16.1	16.8
	UUF	0.9	0.9	1.1	0.9
	EAF	81.2	82.6	82.8	82.3

*List of countries : Japan

APPENDIX C16 - FOSSIL FUELS, CHINA, 100 TO > 1000 MW

**ANNUAL UNAVAILABILITY
OF STEAM TURBINE UNITS
MORE THAN
ONE YEAR OLD (%)**

**China*
100 to > 1000 MW
Fossil fuels**

AA6016YY		1997	1998	1999	Average
100 to 199 MW	MW	28,050	28,775	30,046	28,957
	nb	253	258	267	259
	PUF	7.6	6.3	6.2	6.7
	UUF	1.6	1.1	1.1	1.3
	EAF	90.8	92.6	92.7	92.0
200 to 299 MW	MW	36,070	37,270	37,690	37,010
	nb	179	185	187	184
	PUF	9.1	8.6	8.4	8.7
	UUF	2.1	1.8	1.6	1.8
	EAF	88.8	89.6	90.0	89.5
300 to 399 MW	MW	40,475	47,735	57,045	48,418
	nb	131	155	184	157
	PUF	8.6	9.5	8.1	8.7
	UUF	3.9	3.2	2.2	3.0
	EAF	87.5	87.3	89.7	88.3
400 to 599 MW	MW	2,520	2,520	2,520	2,520
	nb	5	5	5	5
	PUF	11.6	8.1	12.6	10.8
	UUF	8.4	7.2	5.4	7.0
	EAF	80.0	84.7	82.0	82.2
600 to 799 MW	MW	6,180	7,380	8,580	7,380
	nb	10	12	14	12
	PUF	7.1	11.7	9.4	9.5
	UUF	8.7	11.1	4.6	7.9
	EAF	84.2	77.2	86.0	82.6
100 to > 1000 MW	MW	113,295	123,680	135,881	124,285
	nb	578	615	657	617
	PUF	8.5	8.6	7.9	8.3
	UUF	3.1	2.8	2.0	2.6
	EAF	88.4	88.6	90.1	89.1

*List of countries : China

APPENDIX C17 - FOSSIL FUELS, RUSSIAN FEDERATION, 100 TO > 1000 MW

**ANNUAL UNAVAILABILITY
OF STEAM TURBINE UNITS
MORE THAN
ONE YEAR OLD (%)**

Russia* 100 to > 1000 MW Fossil fuels

AA7017YY		1997	1998	1999	Average
100 to 199 MW	MW	5100	5100	5100	5100
	nb	34	34	34	34
	PUF	11.4	11.8	12.7	12.0
	UUF	1.7	2.1	1.8	1.9
	EAF	86.9	86.1	85.5	86.1
200 to 299 MW	MW	15200	15200	15200	15200
	nb	76	75	75	75
	PUF	13.7	13.9	10.8	12.8
	UUF	3.5	4.2	3.7	3.8
	EAF	82.8	81.9	85.5	83.4
300 to 399 MW	MW	23400	23400	23400	23400
	nb	78	78	77	78
	PUF	24.5	15.2	14.2	18.0
	UUF	3.6	2.3	1.7	2.5
	EAF	71.9	82.5	84.1	79.5
400 to 599 MW	MW	3500	3500	3500	3500
	nb	7	7	7	7
	PUF	20.2	24.5	16.7	20.5
	UUF	10.0	14.2	5.2	9.8
	EAF	69.8	61.3	78.1	69.7
800 to 999 MW	MW	11200	11200	11200	11200
	nb	14	14	14	14
	PUF	15.6	19.6	18.0	17.7
	UUF	2.4	2.7	2.3	2.5
	EAF	82.0	77.7	79.7	79.8
> 1000 MW	MW	1200	1200	1200	1200
	nb	1	1	1	1
	PUF	31.2	28.3	8.3	22.6
	UUF	1.7	0	0.1	0.6
	EAF	67.1	71.7	91.6	76.8
100 to > 1000 MW	MW	59600	59600	59600	59600
	nb	210	209	208	209
	PUF	18.8	16.2	13.9	16.3
	UUF	3.5	3.5	2.5	3.2
	EAF	77.7	80.3	83.6	80.5

*List of countries : Russia

APPENDIX C19 - FOSSIL FUELS, NORTH AMERICA, STEAM TURBINE, 100 TO > 1000 MW

North America*
Steam turbine
100 to > 1000 MW
Fossil fuels

ENERGY AVAILABILITY
OF FOSSIL-FIRED UNITS (%)

EAF: Energy Availability factor. Capacity in MW AA0124Y0_60_99

Year	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	All years				
Capacity	587	624	744	1178	1684	883	317	1305	1632	10130	12515	914	17560	11643	5054	14068	9788	8184	10868	9356	5272	5623	7198	855	2416	249	451	500	1269									
Age (yr)	13	15	19	28	33	20	21	26	26	36	20	35	25	18	23	21	16	19	14	13	9	10	7	2	3	1	2	3	3									
1	96.2	84.6	73.8	81.7	77.1	65.9	75.0	72.7	69.4	69.6	71.8	71.4	70.7	68.5	78.4	66.6	79.6	73.4	81.7	84.0	87.5	82.4	87.8	91.4	87.8	89.3	88.9	85.4	81.5	83.2				75.2	75.2			
2		88.2	76.9	84.5	78.3	70.3	81.2	76.5	72.2	71.3	74.8	73.4	75.0	80.2	73.2	76.0	75.3	78.3	81.7	78.1	82.6	85.2	83.4	88.6	82.9	83.5	82.6	90.4	90.7	86.8	84.1	89.1			77.7	76.6		
3			92.1	74.9	70.9	79.9	74.7	78.2	73.8	78.5	70.9	73.2	73.4	70.1	78.6	82.6	78.8	81.3	77.0	85.1	82.3	82.6	87.1	82.8	91.0	88.9	89.8	92.0	86.6	77.0	83.5	89.4	87.3			79.2	77.6	
4				90.7	83.4	77.1	70.4	73.2	84.3	80.7	75.2	70.7	77.2	75.7	78.6	76.2	80.3	77.5	85.1	85.4	83.7	79.5	86.5	87.9	86.7	88.3	75.7	84.3	90.3	88.9	89.3	87.8	90.6	79.6	78.2			
5					77.5	82.2	74.6	78.6	75.8	77.2	74.2	62.8	70.3	75.4	76.4	77.4	84.2	81.6	81.8	84.1	83.5	81.7	81.1	86.1	84.8	86.1	82.3	85.3	88.2	85.6	91.3	93.5	92.4	79.4	78.5			
6						78.2	78.2	74.2	72.4	62.5	72.6	73.0	68.0	88.8	78.8	75.5	78.6	82.7	83.1	77.3	83.4	85.1	82.5	84.6	86.1	88.0	90.6	88.4	88.8	87.4	85.8	89.8			77.2	78.2		
7							65.7	83.4	69.8	73.5	72.4	70.8	64.5	59.4	70.1	78.1	77.2	80.7	75.4	79.5	78.7	83.5	86.4	83.6	84.8	85.4	78.9	91.1	97.6	85.4	84.5	83.0	83.5	76.5	77.9			
8								76.1	77.6	70.5	70.6	67.1	70.4	72.0	64.2	70.9	72.2	77.9	85.5	77.5	79.9	81.6	81.4	84.2	84.2	89.0	84.8	85.5	86.5	91.0	88.3	90.8	88.8	83.7	76.9	77.8		
9									77.8	72.6	64.7	73.6	71.1	71.2	72.9	70.1	72.5	82.6	77.4	80.6	76.9	80.2	80.1	81.7	84.8	81.1	87.7	82.8	89.5	85.6	87.3	84.2	85.1	92.6	77.7	77.7		
10										71.2	75.7	70.3	64.5	68.9	66.2	73.3	71.2	73.2	80.1	82.5	82.1	78.3	82.1	82.2	84.5	85.2	84.8	85.5	89.5	86.0	84.5	80.9	87.7	83.8	87.6	77.7		
11											75.3	70.4	65.9	70.0	68.1	72.2	74.0	74.9	75.9	75.6	79.9	80.2	81.1	82.0	83.4	79.8	82.1	84.5	89.6	87.4	89.4	88.5	91.3	85.3	71.8	77.7		
12												63.9	76.4	66.6	67.6	67.0	72.0	74.1	72.1	79.6	80.7	74.8	80.7	79.6	86.3	83.5	84.2	86.6	85.6	83.6	89.4	88.3	87.6	89.9	77.8	77.7		
13													62.1	70.3	63.8	70.2	71.4	75.0	77.4	78.5	70.7	80.3	83.1	82.1	81.7	82.3	84.3	86.2	82.9	84.8	88.3	89.4	89.7	85.4	78.4	77.8		
14														64.8	70.5	69.6	74.2	70.8	73.9	76.2	79.9	80.6	78.4	78.8	76.6	80.9	85.5	84.0	87.0	86.5	85.2	84.3	89.3	85.7	78.7	77.9		
15															68.9	69.6	70.2	71.9	70.9	73.9	77.4	75.6	76.8	78.5	84.7	81.2	83.3	81.0	81.9	84.1	85.3	82.2	88.4	83.9	78.1	77.9		
16																68.7	73.4	70.4	69.4	72.9	75.7	80.3	76.8	79.1	81.3	80.9	79.8	81.1	81.1	86.8	87.7	82.6	84.5	86.3	78.6	77.9		
17																	69.6	73.0	72.8	73.7	73.5	75.7	80.8	75.2	75.2	80.8	82.8	82.0	80.5	81.6	84.6	88.6	86.4	83.5	78.7	78.0		
18																		73.9	74.4	70.3	76.4	74.4	78.3	77.9	77.3	78.6	84.0	82.0	77.6	81.3	82.7	88.1	88.0	87.5	79.6	78.1		
19																			71.1	75.4	72.9	75.8	71.8	77.2	79.0	76.3	76.9	79.3	83.1	82.9	83.9	86.2	86.0	89.6	79.2	78.1		
20																				76.0	74.4	75.3	74.7	77.6	75.7	84.6	78.3	80.6	79.0	83.7	80.5	80.2	85.0	86.1	79.5	78.2		
21																					74.9	71.9	73.7	79.5	73.0	71.9	79.6	79.1	77.3	80.0	86.1	84.1	82.7	81.8	78.5	78.2		
22																						78.8	76.4	79.0	77.2	78.0	79.6	80.0	80.4	84.4	84.9	83.7	83.2	79.9	78.3			
23																							78.4	77.1	74.2	78.9	79.9	73.6	79.2	81.4	80.4	83.1	83.8	80.7	79.5	78.3		
24																								77.3	74.0		79.2	79.1	79.2	79.4	82.2	80.8	82.2	76.1	79.7	78.4		
25																																						
26																																						
27																																						
28																																						
Average	96.2	88.2	84.7	78.1	77.2	76.6	73.4	76.6	74.5	71.3	72.1	70.1	69.8	70.3	70.9	73.3	74.2	76.2	76.3	77.9	77.8	78.4	79.4	80.1	80.5	80.7	82.3	81.5	82.4	83.1	84.4	83.9	83.6	83.1				

*List of countries : United States + Canada

APPENDIX G-1 AVAILABILITY STATISTICS FOR GAS TURBINE PLANT - AVERAGE FOR 1991 - 1993

Size Class MW	Unit-years	Average MW/unit	Availability %	Unavailability (%)		
				PUF	UUF	Total
30 - 75	77	54	82.87	11.51	5.61	17.13
76 - 150	47	100	83.41	9.67	6.91	16.59
All Sizes	124	71	83.16	10.54	6.30	16.84

APPENDIX G-2 AVAILABILITY STATISTICS FOR GAS TURBINE PLANT - FOR 1994 - 1996

Size Class MW	Unit-years	Average MW/unit	Availability %	Unavailability (%)		
				PUF	UUF	Total
30 - 75	167	38	77.90	15.53	6.57	22.10
76 - 150	54	110	86.18	7.54	6.28	13.82
All Sizes	221	56	81.89	11.68	6.43	18.11

APPENDIX G-3 AVAILABILITY STATISTICS FOR COMBINED CYCLE PLANT - AVERAGE FOR 1991 – 1993

Size Class MW	Unit-years	Average MW/unit	Availability %	Unavailability (%)		
				PUF	UUF	Total
101 - 200	148	134	84.24	14.38	1.39	15.76
201 - 300	30	245	84.70	9.50	5.80	15.30
301 & Up	12	355	77.95	9.90	12.15	22.05
All Sizes	190	165	83.49	12.63	3.88	16.51

APPENDIX G-4 AVAILABILITY STATISTICS FOR COMBINED CYCLE PLANT - AVERAGE FOR 1994 – 1996

Size Class MW	Unit-years	Average MW/unit	Availability %	Unavailability (%)		
				PUF	UUF	Total
101 - 200	220	141	85.93	12.52	1.56	14.07
201 - 300	95	236	86.56	10.82	2.62	13.44
301 & Up	56	393	88.26	8.49	3.26	11.74
All Sizes	371	203	86.80	10.83	2.37	13.20

**APPENDIX N1 - STATUS OF NUCLEAR POWER PLANTS WORLDWIDE
(AS OF 31 DECEMBER 2000)**

Country	Reactors in Operation		Reactors under Construction		Nuclear Electricity Supplied in 2000		Total Operating Experience to 31 Dec. 2000	
	No of Units	Total MW(e)	No of Units	Total MW(e)	TW(e).h	% of Total	Years	Months
ARGENTINA	2	935	1	692	5.73	7.26	44	7
ARMENIA	1	376			1.84	33.00	33	3
BELGIUM	7	5712			45.40	56.75	170	7
BRAZIL	2	1855			6.05	1.87	19	3
BULGARIA	6	3538			18.18	45.00	113	2
CANADA	14	9998			68.68	11.80	433	2
CHINA	3	2167	8	6420	16.00	1.19	23	5
CZECH R.	5	2569	1	912	13.59	20.06	58	9
FINLAND	4	2656			21.60	32.15	87	4
FRANCE	59	63073			395.00	76.40	1169	2
GERMANY	19	21122			159.60	30.57	591	1
HUNGARY	4	1755			14.18	40.60	62	2
INDIA	14	2503	2	900	14.21	3.14	181	5
IRAN			2	2111			0	0
JAPAN	53	43491	3	3190	304.87	33.82	962	8
KOREA RP	16	12990	4	3820	103.50	40.74	169	2
LITHNIA	2	2370			8.40	73.68	30	6
MEXICO	2	1360			7.92	3.86	17	11
NETHLNDS	1	449			3.70	4.00	56	0
PAKISTAN	2	425			1.08	1.65	29	10
ROMANIA	1	650	1	650	5.05	10.86	4	6
RUSSIA	29	19843	3	2825	119.65	14.95	671	6
S.AFRICA	2	1800			12.99	6.58	32	3
SLOVAK R	6	2408	2	776	16.49	53.43	85	0
SLOVENIA	1	676			4.54	37.38	19	3
SPAIN	9	7512			59.30	27.63	192	2
SWEDEN	11	9432			54.80	39.00	278	1
SWITZRLD	5	3192			24.95	38.18	128	10
UK	35	12968			78.30	21.94	1238	4
UKRAINE	13	11207	4	3800	72.40	47.28	240	10
USA	104	97411			753.90	19.83	2559	8
Total	438	351327	33	28656	2448.40		9819	11

Note: The total includes the following data in Taiwan, China:

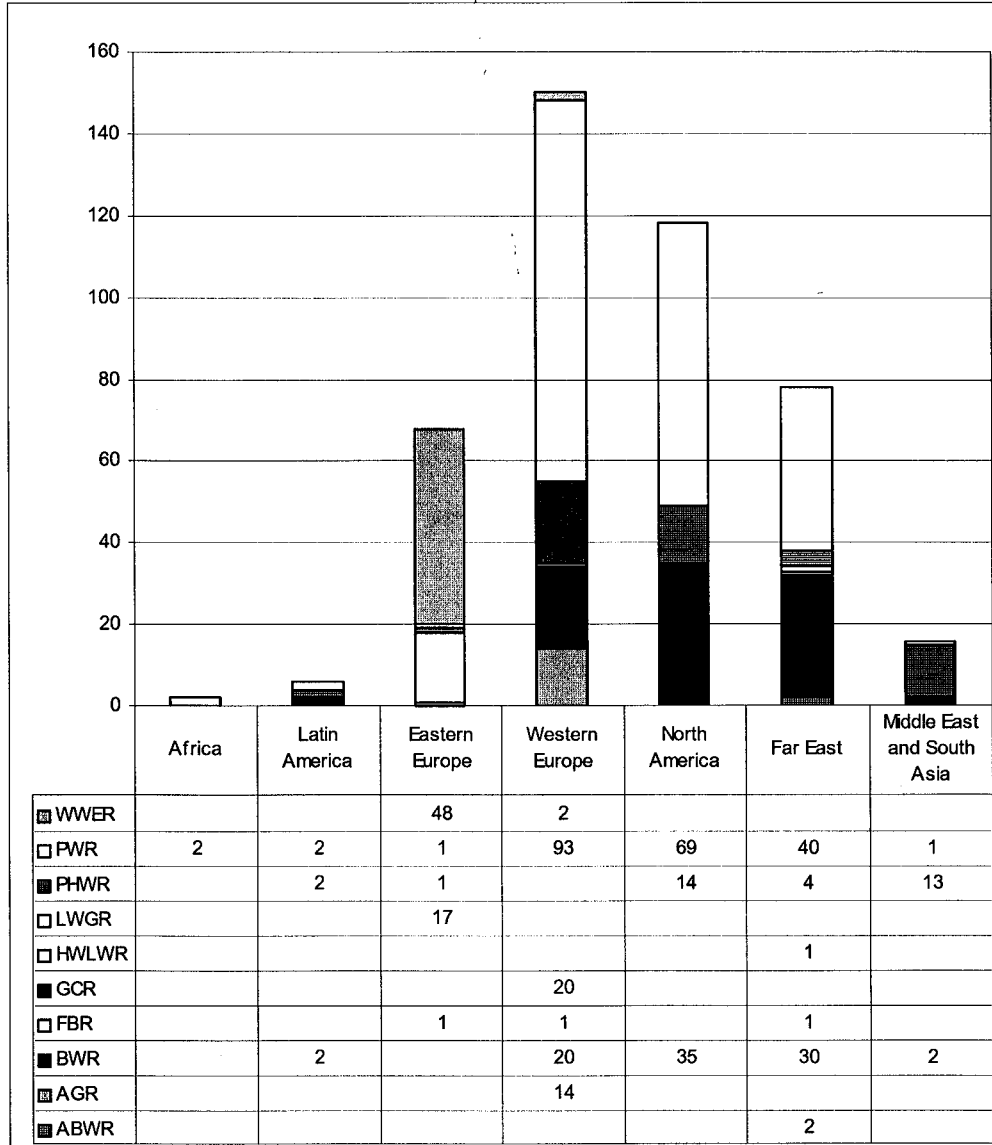
— 6 units, 4884 MW(e) in operation; 2 units, 2560 MW(e) under construction;

— 37 TW(e).h of nuclear electricity generation, representing 23.64% of the total electricity generated there;

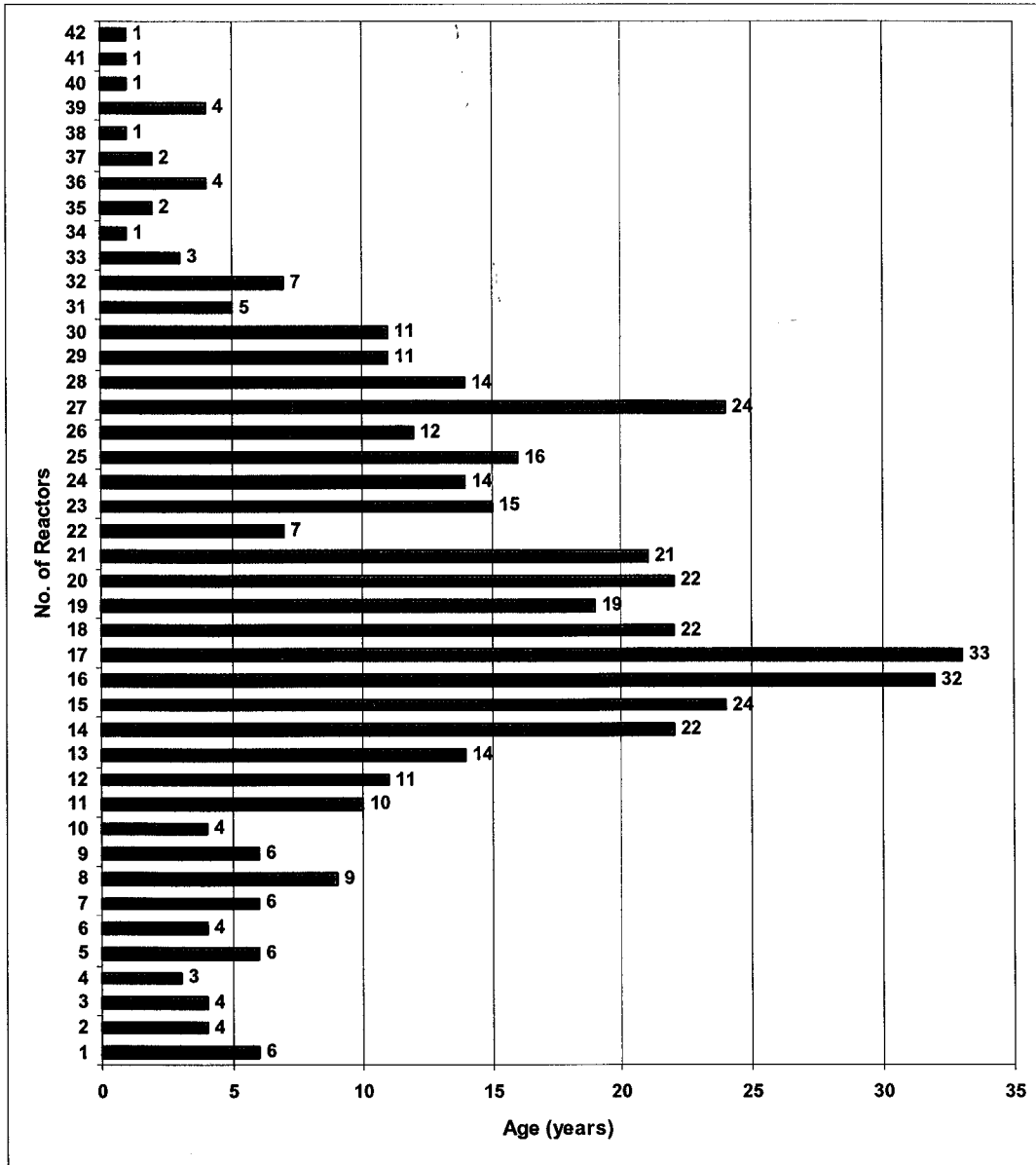
— 116 years 1 month of total operating experience.

**SECTION I: THERMAL GENERATING PLANT (100 MW+) - AVAILABILITY AND UNAVAILABILITY
STATISTICS - APPENDIX N**

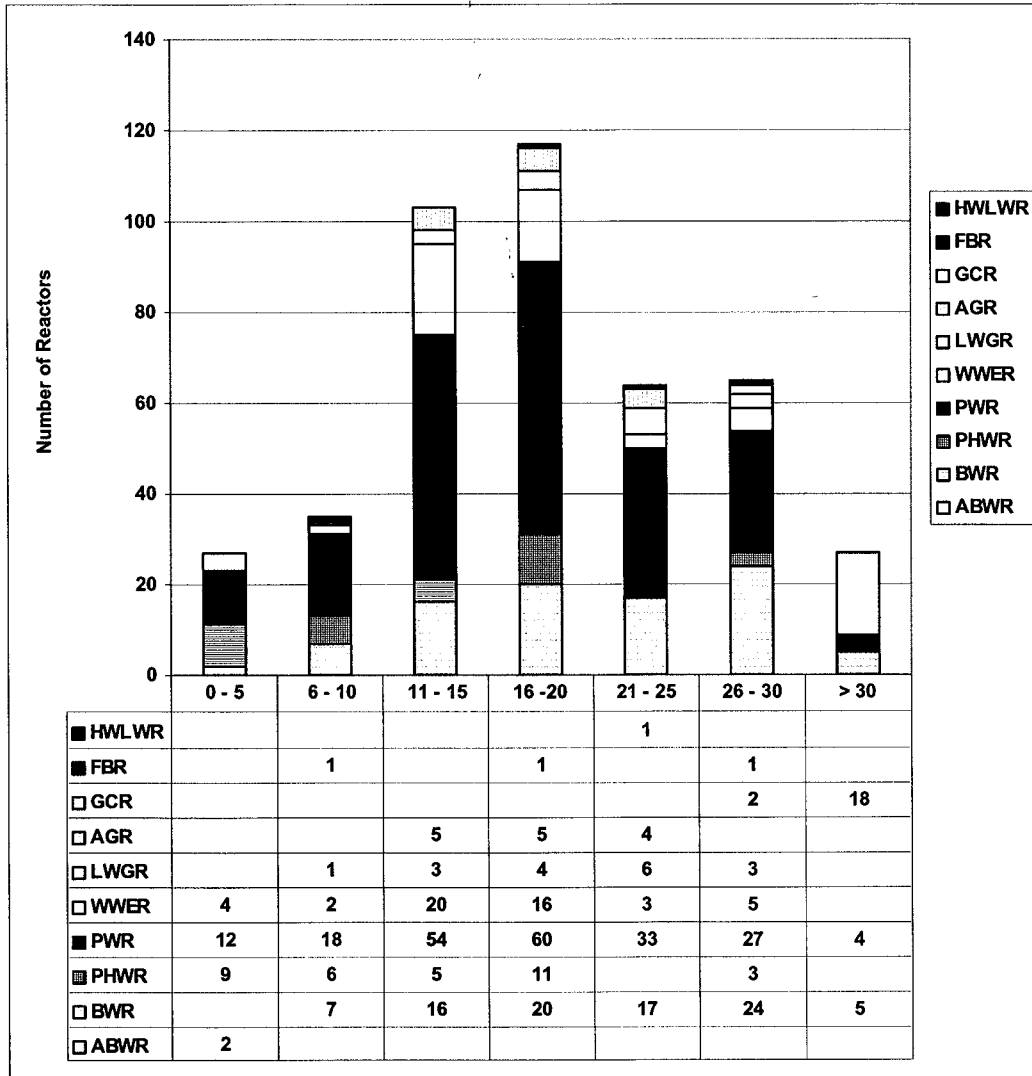
APPENDIX N2 - NUMBER OF NUCLEAR POWER PLANTS BY REACTOR TYPE AND REGION (AS OF 31 DECEMBER 2000)



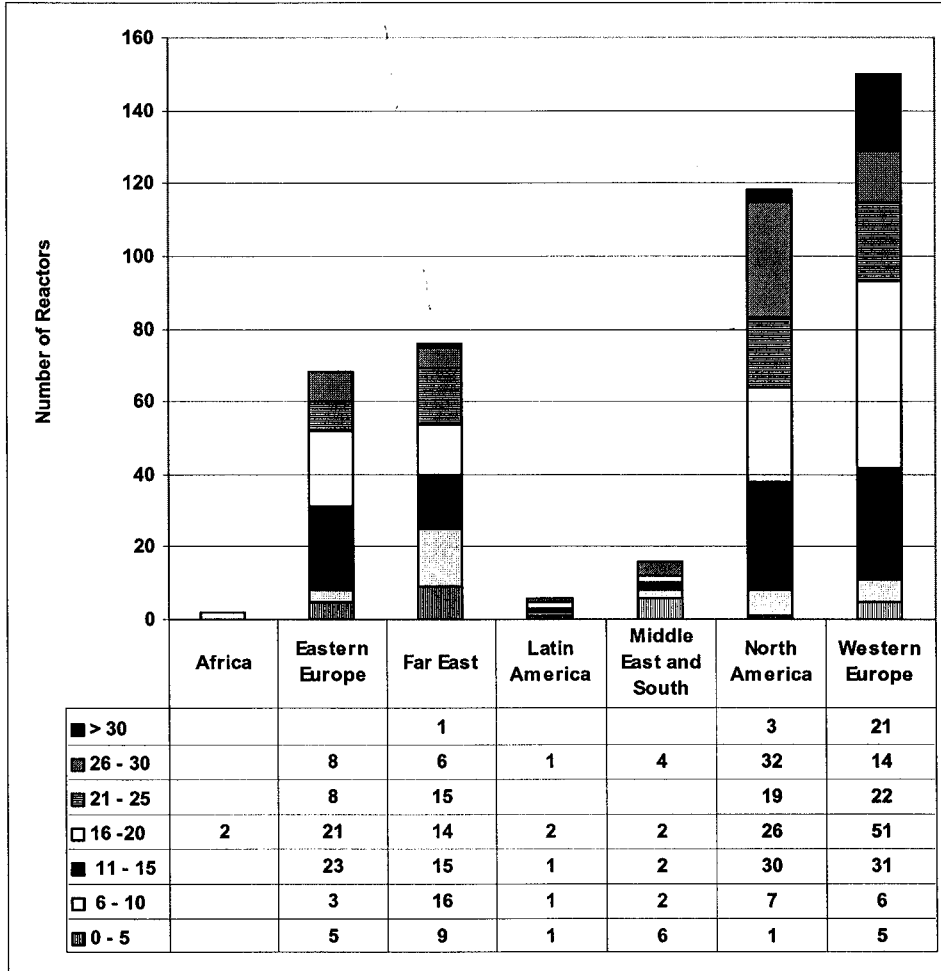
**APPENDIX N3 - NUMBER OF NUCLEAR POWER PLANTS BY AGE
(AS OF 31 DECEMBER 2000)**



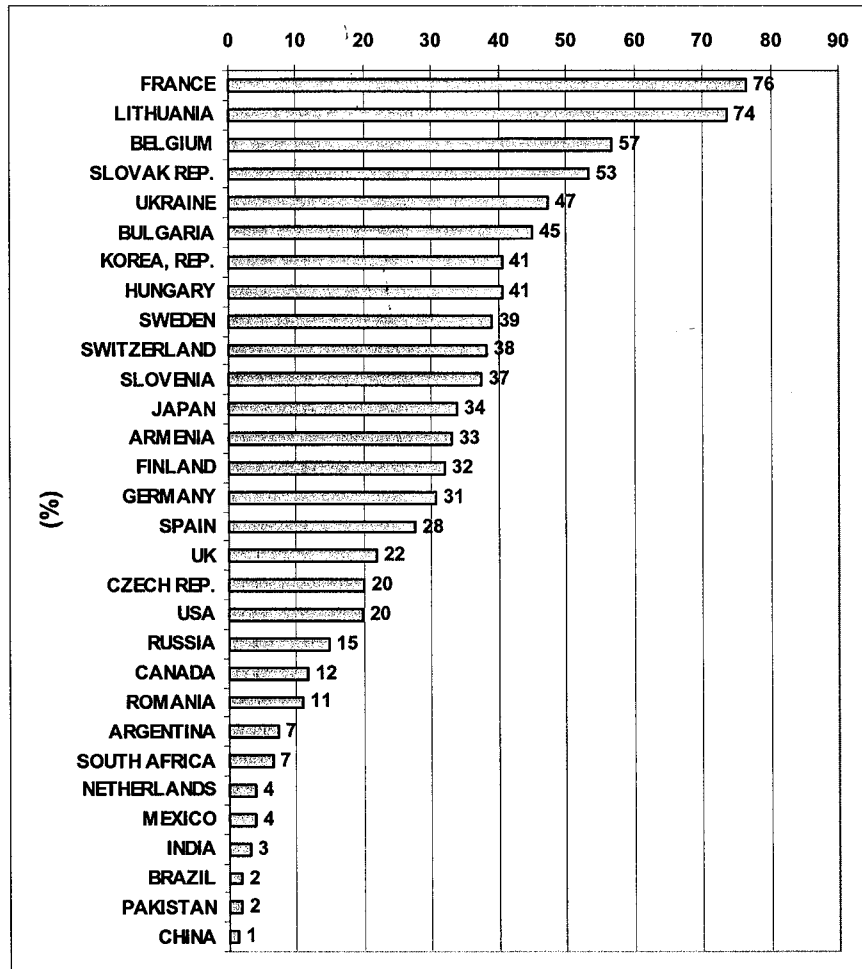
APPENDIX N4 - DISTRIBUTION OF NUCLEAR POWER PLANTS BY AGE AND TYPE
(AS OF 31 DECEMBER 2000)



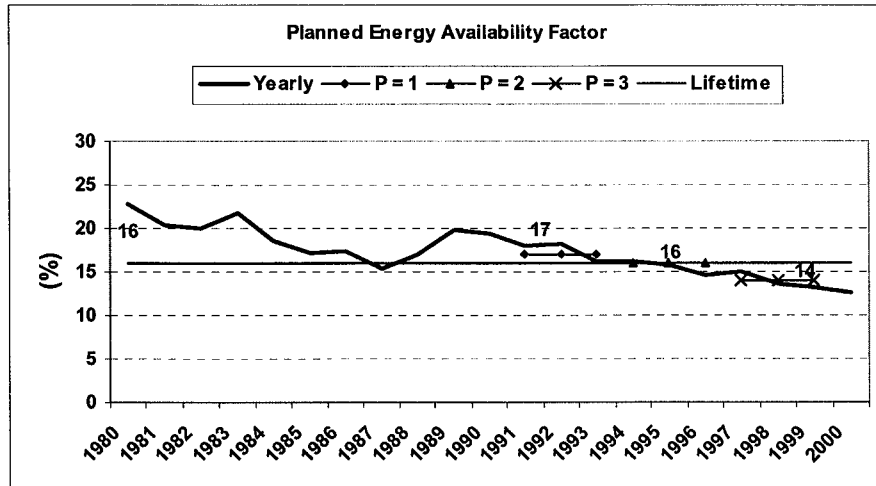
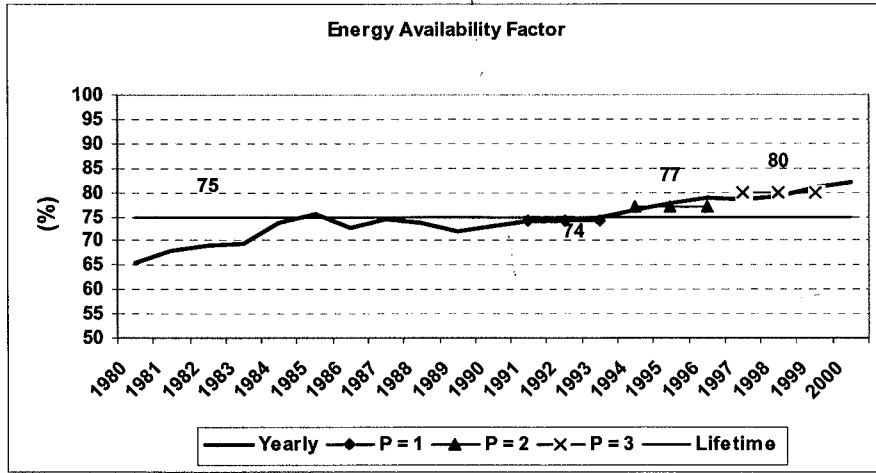
**APPENDIX N5 - DISTRIBUTION OF NUCLEAR POWER PLANTS
BY AGE AND REGION (AS OF 31 DECEMBER 2000)**

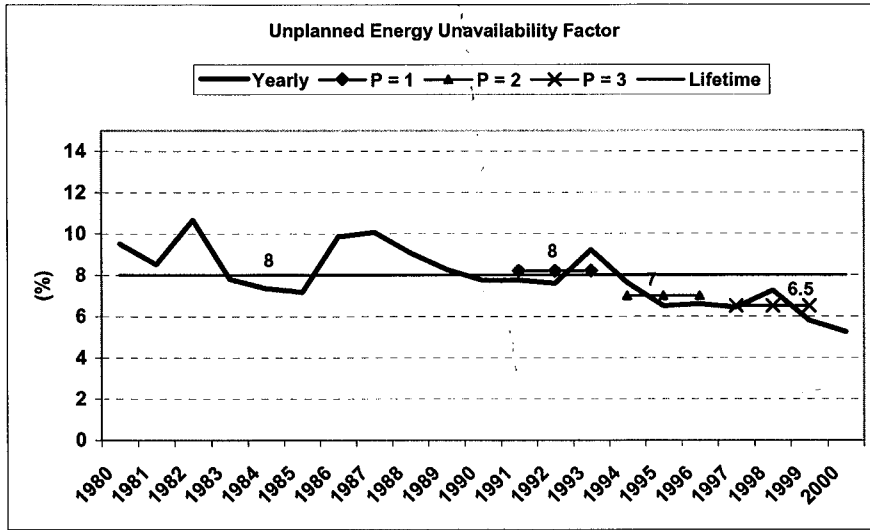


APPENDIX N6 - NUCLEAR SHARE OF ELECTRICITY GENERATION IN 2000(%)



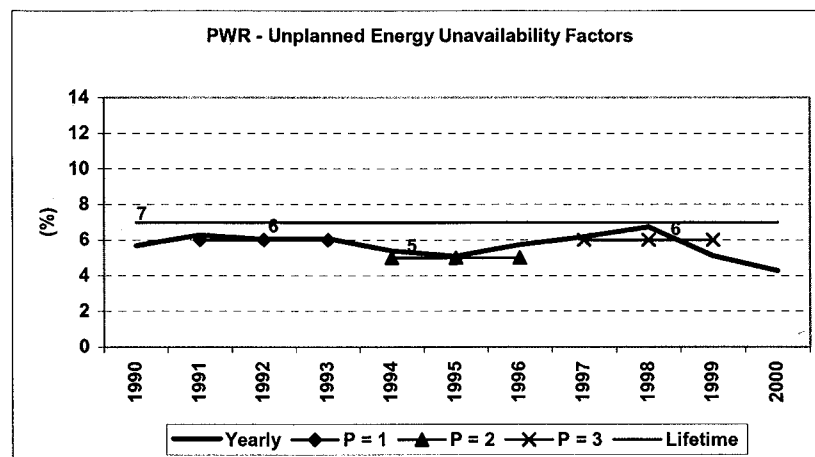
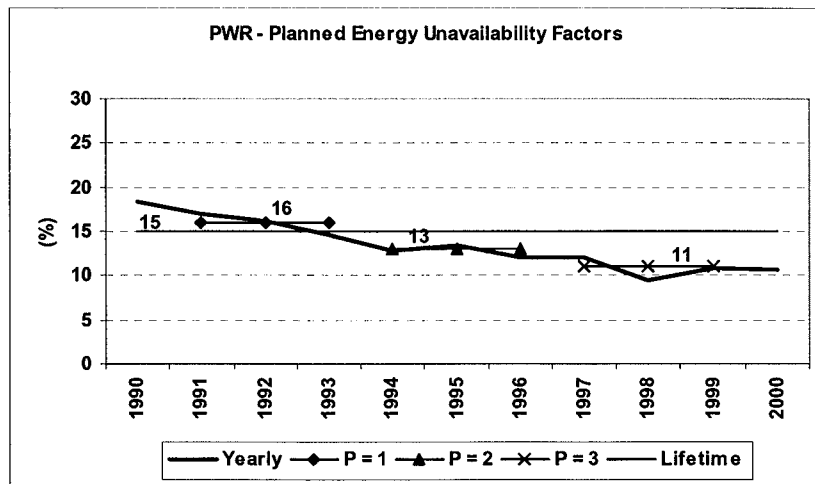
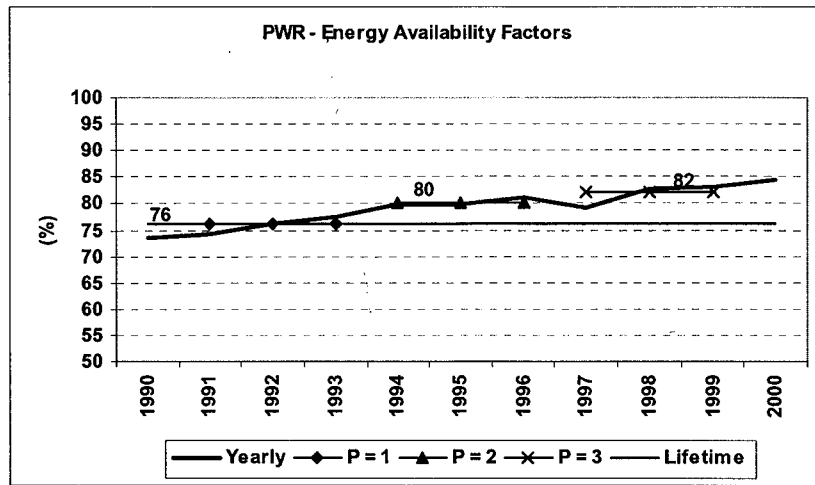
APPENDIX N7 - ANNUAL WORLD ENERGY AVAILABILITY AND UNAVAILABILITY FACTORS



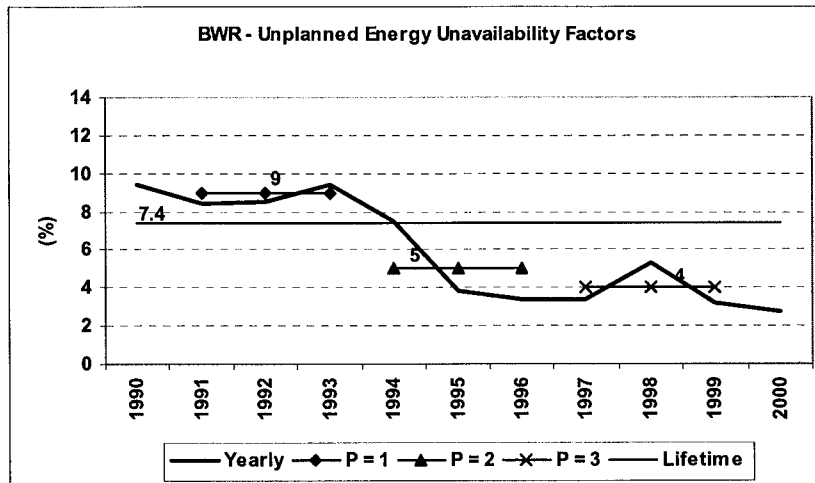
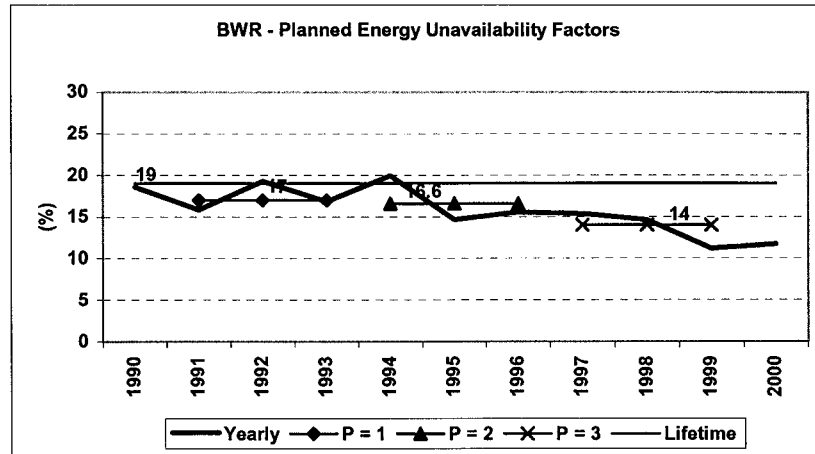
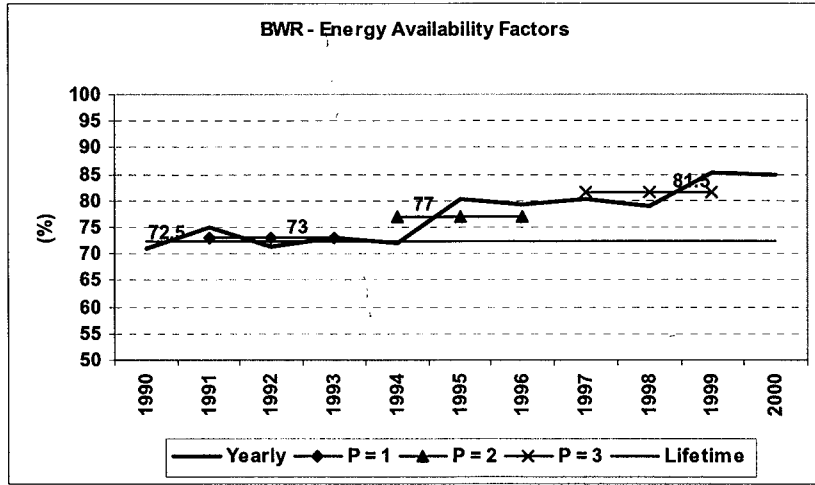


SECTION 1: THERMAL GENERATING PLANT (100 MW+) - AVAILABILITY AND UNAVAILABILITY STATISTICS - APPENDIX N

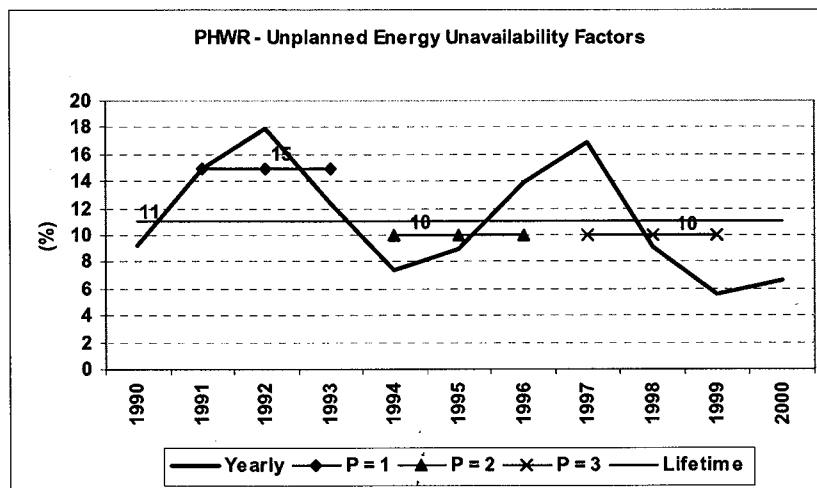
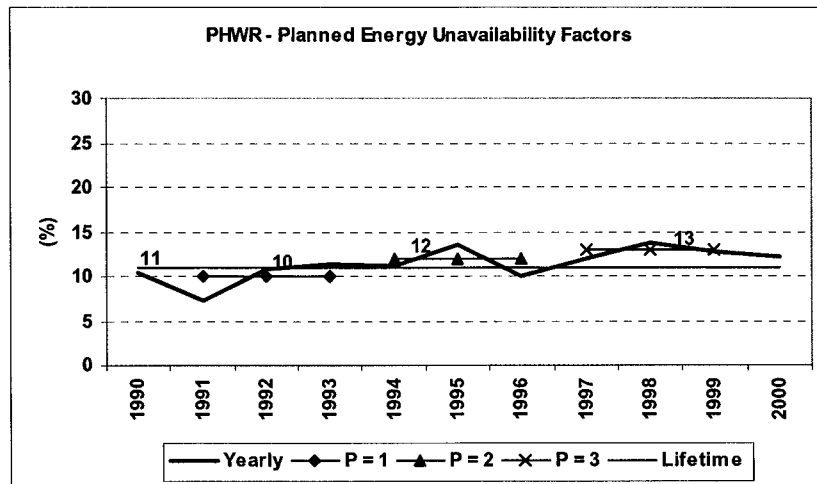
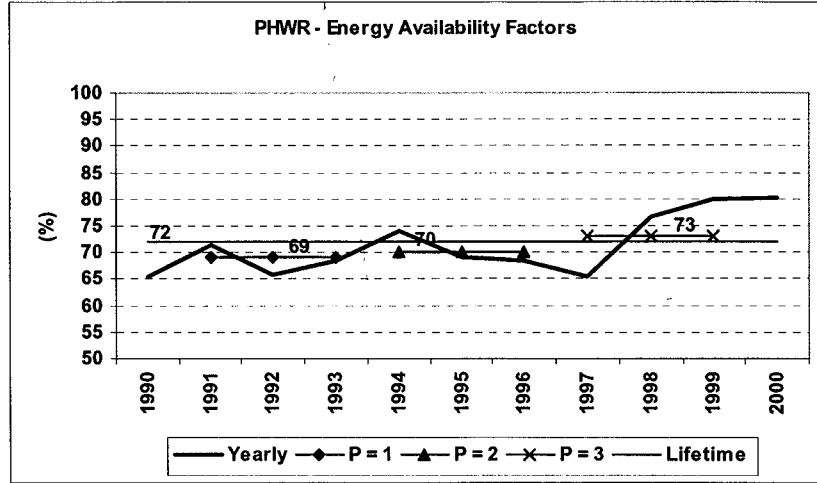
APPENDIX N8 - ENERGY AVAILABILITY AND UNAVAILABILITY FACTORS – PWR



APPENDIX N9 - ENERGY AVAILABILITY AND UNAVAILABILITY FACTORS - BWR

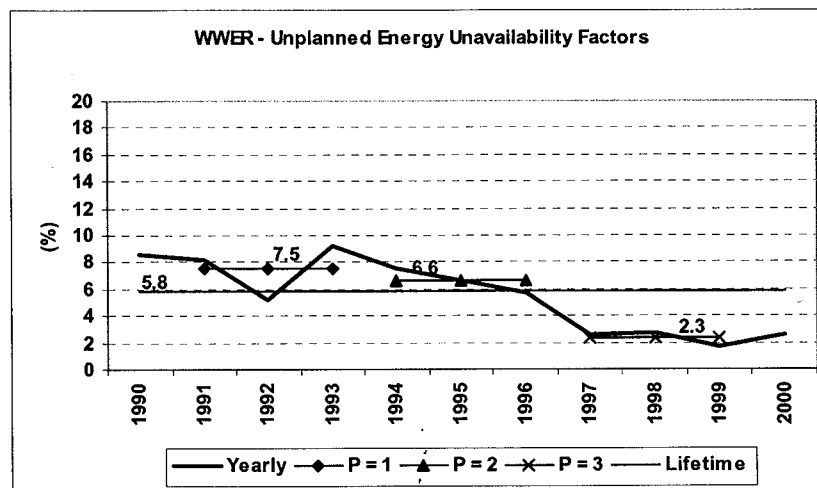
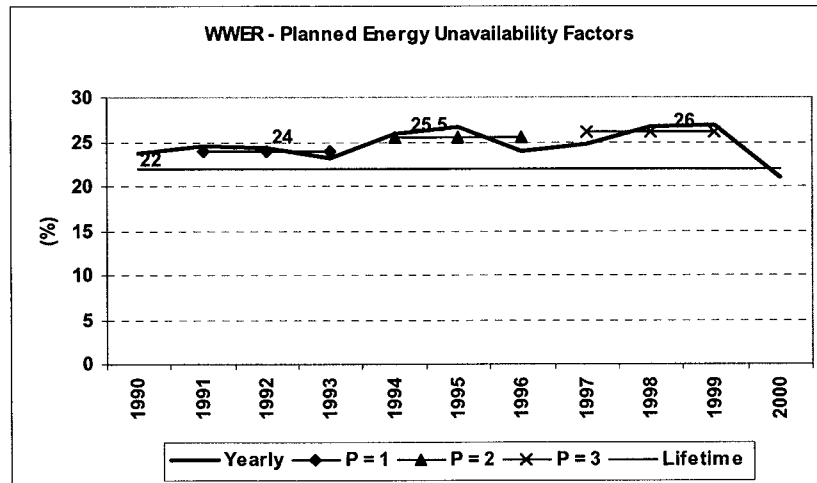
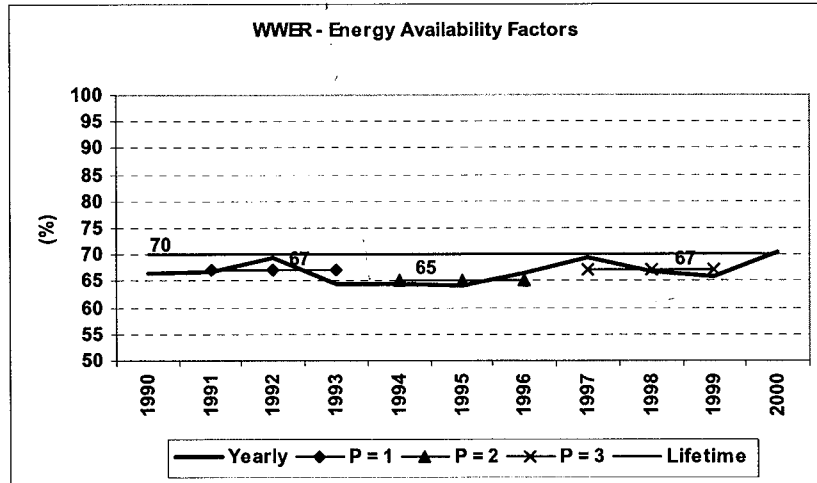


APPENDIX N10 - ENERGY AVAILABILITY AND UNAVAILABILITY FACTORS - PHWR



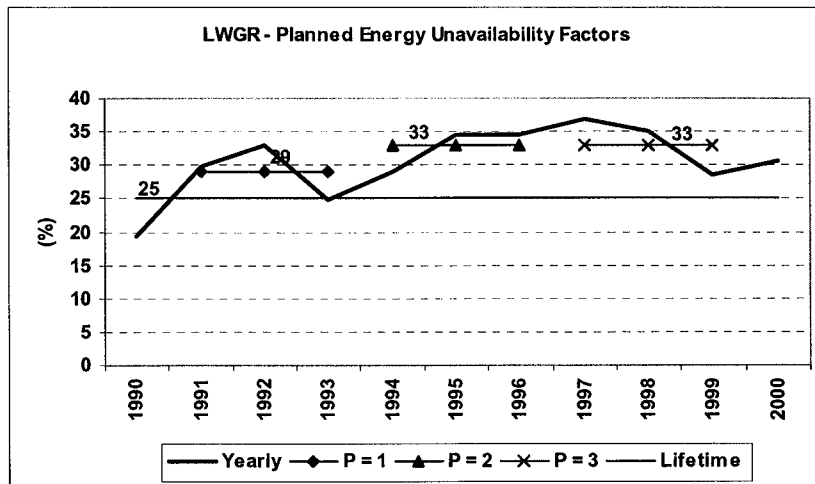
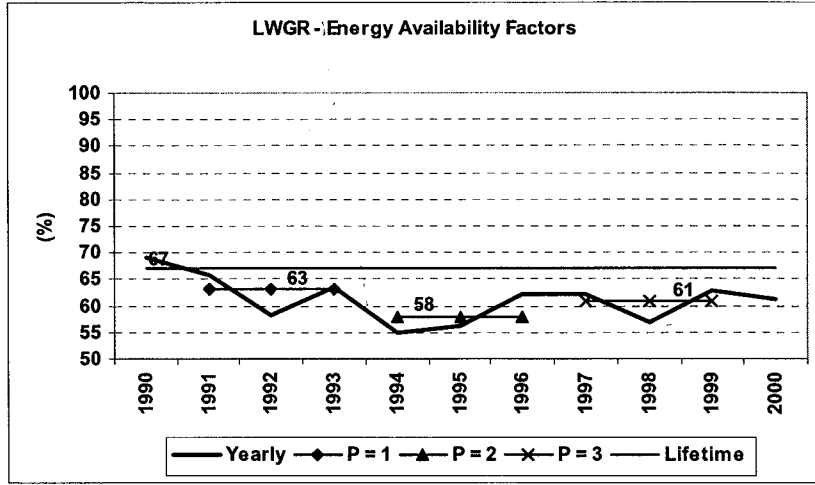
SECTION 1: THERMAL GENERATING PLANT (100 MW+) - AVAILABILITY AND UNAVAILABILITY STATISTICS - APPENDIX N

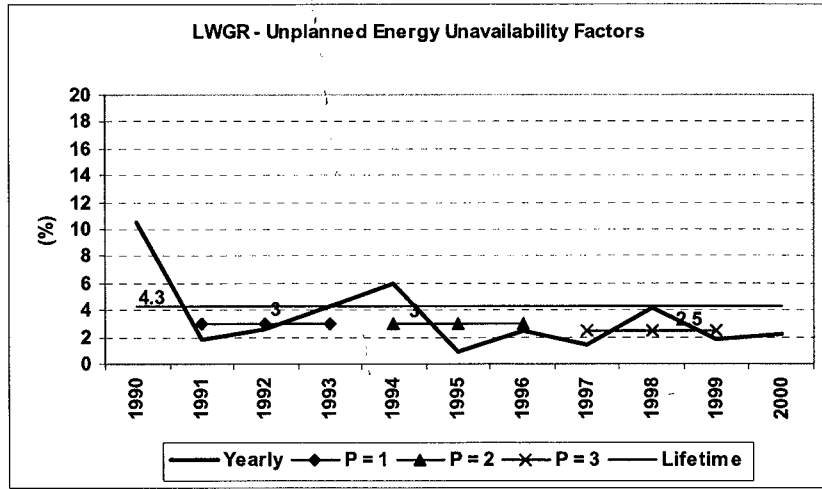
APPENDIX N11 - ENERGY AVAILABILITY AND UNAVAILABILITY FACTORS - WWER



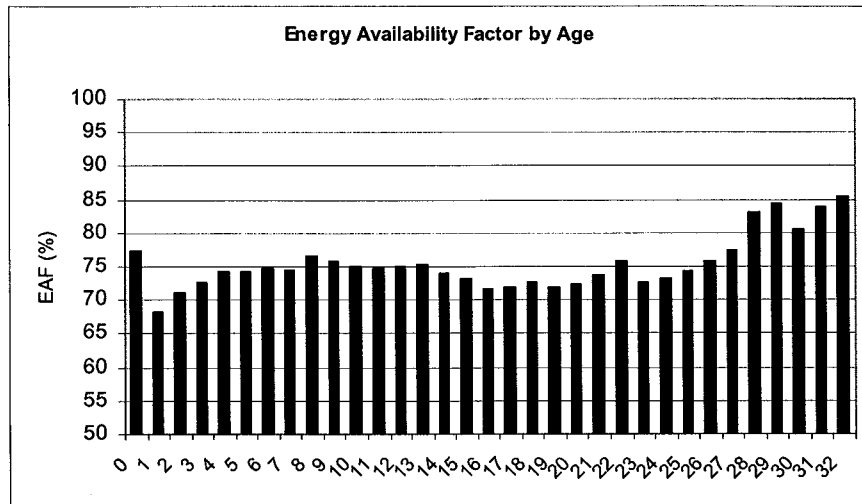
SECTION 1: THERMAL GENERATING PLANT (100 MW+) - AVAILABILITY AND UNAVAILABILITY STATISTICS - APPENDIX N

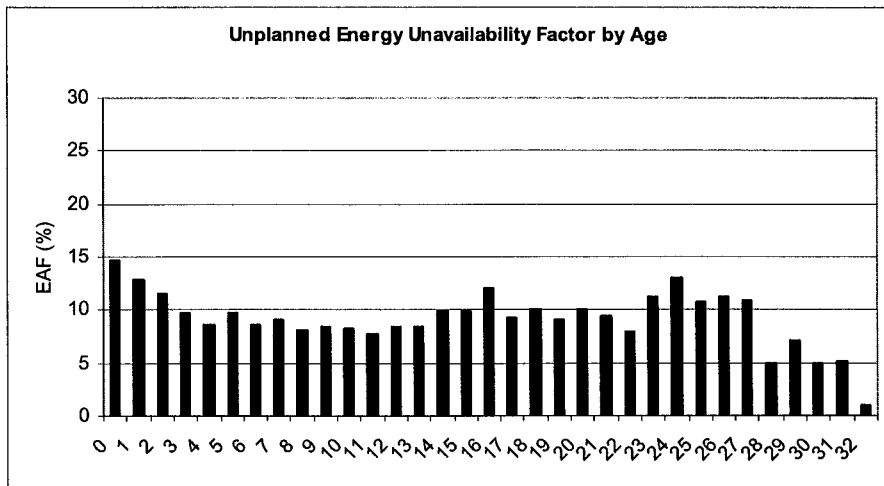
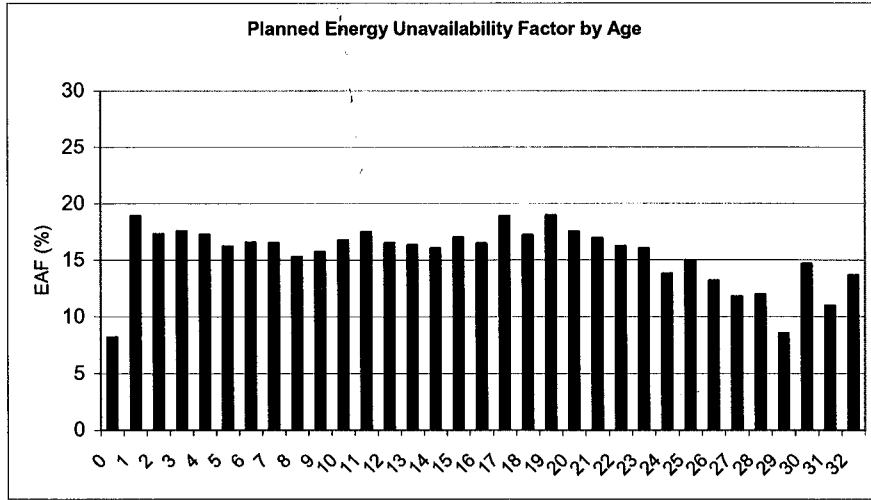
APPENDIX N12 - ENERGY AVAILABILITY AND UNAVAILABILITY FACTORS - LWGR





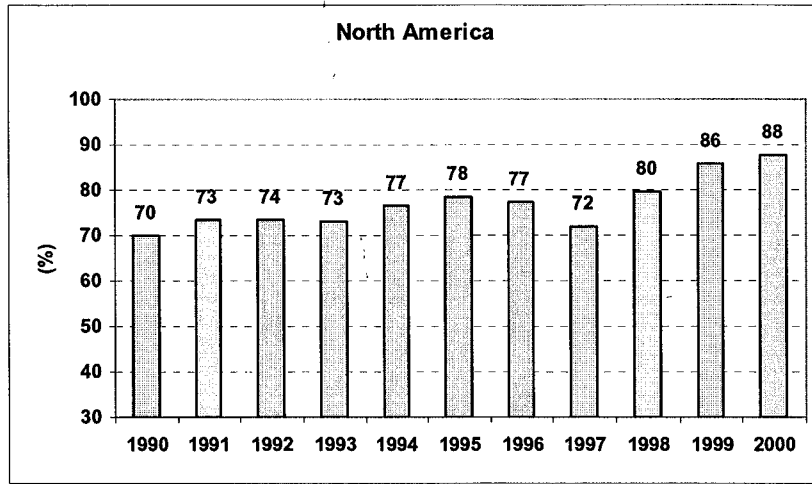
APPENDIX N13 - ENERGY AVAILABILITY AND UNAVAILABILITY FACTORS BY AGE



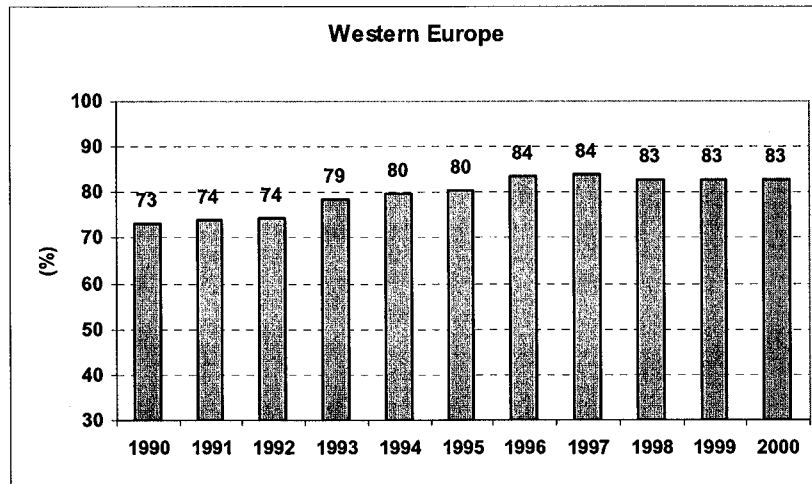


SECTION 1: THERMAL GENERATING PLANT (100 MW+) - AVAILABILITY AND UNAVAILABILITY STATISTICS - APPENDIX N

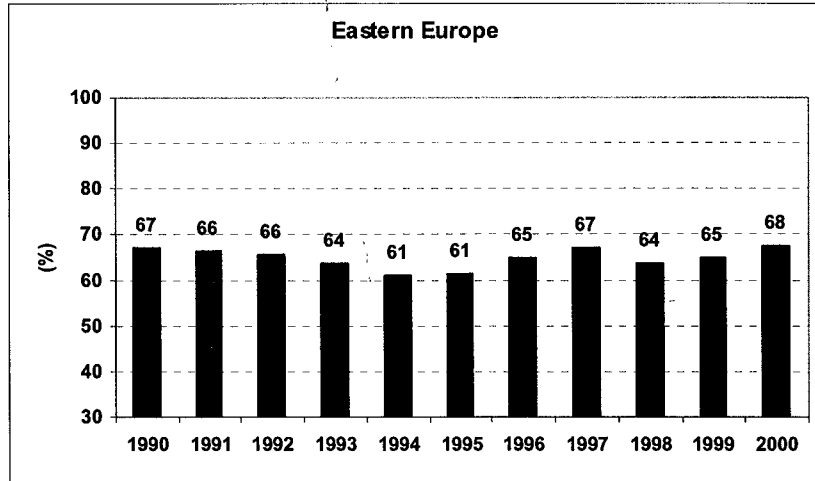
**APPENDIX N14 - ENERGY AVAILABILITY BY REGION
NORTH AMERICA**



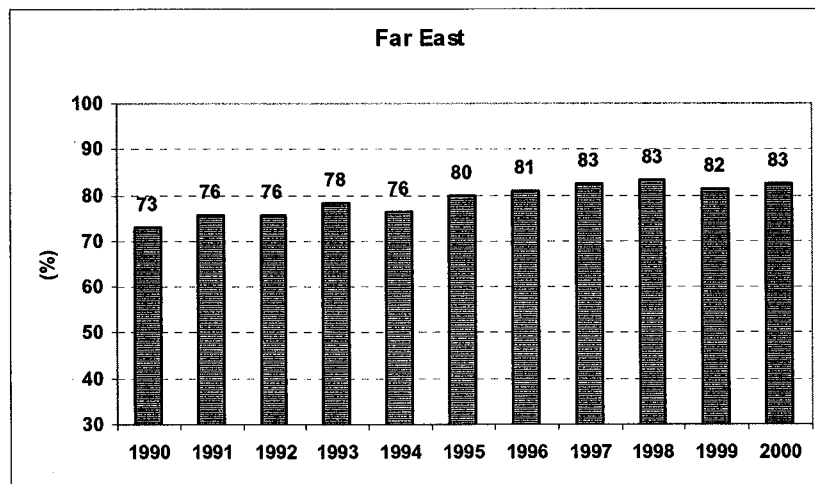
**APPENDIX N15 - ENERGY AVAILABILITY BY REGION
WESTERN EUROPE**



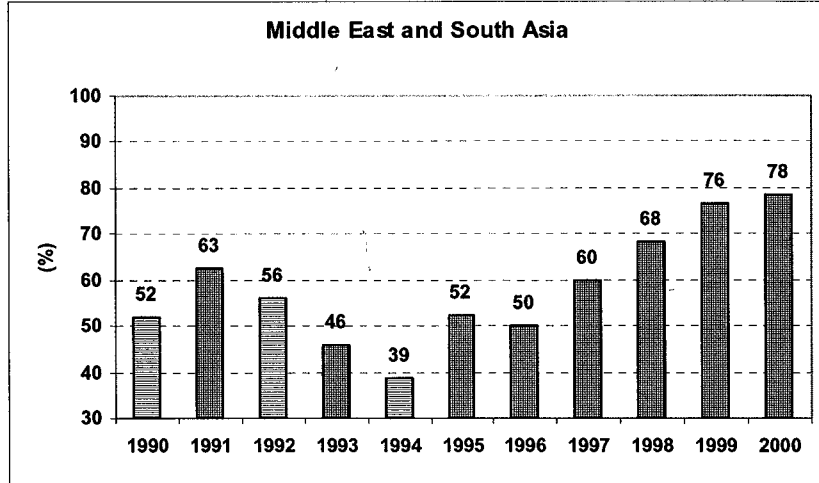
**APPENDIX N16 - ENERGY AVAILABILITY BY REGION
EASTERN EUROPE**



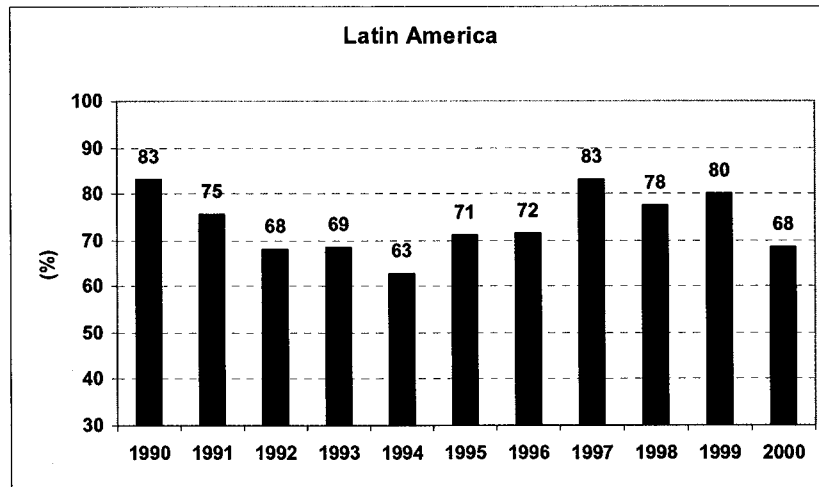
**APPENDIX N17- ENERGY AVAILABILITY BY REGION
FAR EAST**



**APPENDIX N18 - ENERGY AVAILABILITY BY REGION
MIDDLE EAST AND SOUTH ASIA**



**APPENDIX N19 - ENERGY AVAILABILITY BY REGION
LATIN AMERICA**



APPENDIX N20- ENERGY AVAILABILITY BY REGION
AFRICA

