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May 11, 1979

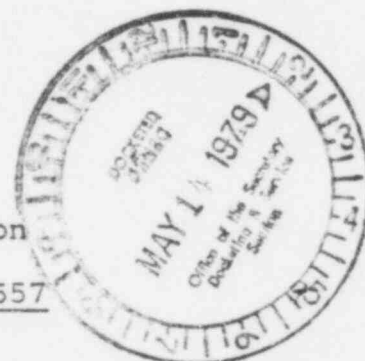
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Appeal Board Panel  
U.S. Nuclear Regulatory  
Commission  
Washington, D.C. 20555

Re: Black Fox Nuclear Generating Station  
Units 1 and 2  
Docket Nos. STN 50-556 and STN 50-557



Gentlemen:

On March 14, 1979, this office informed you that Public Service Company of Oklahoma ("PSO"), one of the Applicants for a construction permit for the Black Fox Station, had been conducting an analysis to determine whether the previously estimated construction costs and scheduled commercial operation dates for the facility could be maintained. All three Applicants have also revised their forecast for peak demand for electric power. The results of that analysis are contained in the enclosed letter from Mr. Vaughn L. Conrad of PSO and the attachments thereto.

One of the issues currently on appeal before you is the need for the Black Fox Station. Exhibit; VIa, VIb and VIc show the current peak load forecast for each of the Applicants. These forecasts show lower peak loads than those previously estimated by Applicants and submitted in the Black Fox Station Environmental Report ("ER"). The relevant portions of the ER are reproduced in Exhibits FJM-3, FJM-4 and FJM-5, attached to the testimony of Mr. Frank J. Meyer following transcript page 2391. The current forecasts are, however, within the range of the estimates previously considered by the Licensing Board in reaching its initial decision of July 24, 1978 (see 8 NRC 102, 155-158). The NRC

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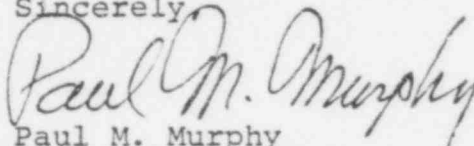
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Staff load growth estimates are shown in the testimony of Dr. Alan M. Wolsky following transcript page 2799, and those of the Intervenor are shown in the testimony of Dr. Robert Halvorsen following transcript page 2443. The combination of reduced load growth and the slippage in the commercial operation dates for Black Fox Station result in reserve margins on Applicants' systems which do not differ materially from those previously estimated by Applicants.

Sincerely,



Paul M. Murphy  
One of the Attorneys  
for Applicants

PMM/sag  
Enclosures

cc w/encs.: Black Fox Service List

## PUBLIC SERVICE COMPANY OF OKLAHOMA

A CENTRAL AND SOUTH WEST COMPANY

P.O. BOX 201 / TULSA, OKLAHOMA 74102 / (918) 583-3611



Public Service Company of Oklahoma  
 Black Fox Station  
 Revised Schedule and Cost Estimate

April 23, 1979

Paul M. Murphy, Esq.  
 Isham, Lincoln and Beale  
 One First National Plaza  
 Chicago, ILL 60603



Dear Paul,

In our letter to the licensing boards dated March 17, 1979, we advised them that a reanalysis of the cost estimate and construction schedule for the Black Fox Station was in progress and would be completed by April 30, 1979.

The study has been completed, and I am now directing that you provide the following information to the boards and parties.

The revised construction schedule is detailed in the attached Exhibit I. Commercial operation of BFS Unit 1 is now slated for July 1, 1985; commercial operation of Unit 2 on July 1, 1988. These construction schedules take into consideration all previously experienced licensing delays and are based on present day experiences at similar projects. Industry precedent has been to set up a timetable allowing only two years between units, but actual construction times are more closely following our revised schedule. We have carefully optimized the Project's construction sequence based on an expected Construction Permit receipt by July 1, 1979.

The new cost estimate for the Project is detailed in Exhibit II. This information is similar to that provided in the Application for Licenses, pages III.K-2 and III.K-3, but does not conform to their FERC (FPC) derived format. In the interest of prompt notification, I have also included in this exhibit a comparison between the June, 1977 estimate of 1.75 billion and the revised estimate of 2.39 billion, rather than wait for the actual revision of these pages which will involve a considerable effort. Exhibit II has provided the same net information and eliminated the need to utilize the above cited pages for comparative purposes.

Exhibit III corresponds directly to Application, page III.A-3, which describes the PSO source of funds for system-wide construction expenditures during the BFS construction period. Likewise, Exhibits IV and V provide project cash flow information for Associated Electric Cooperative, Inc. and Western Farmers' Electric Cooperative. These correspond to pages III.L-2 and III.M-2, respectively, of the Application.

CENTRAL AND SOUTH WEST SYSTEM

Central Power and Light  
 Corpus Christi, Texas

Public Service Company of Oklahoma  
 Tulsa, Oklahoma

Southwestern Electric Power  
 Shreveport, Louisiana

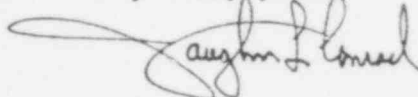
West Texas Utilities  
 Abilene, Texas

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Our Treasurer, Mr. Glancy, informs me that the impacts of the increased cost for the Project have been ameliorated from a financing point of view by the lengthened schedule. A comparison of Exhibit III with Application, page III.A-2, will show a decrease in annual funds required for the Project for some years, although the total is greater.

Finally, as a matter of information, I have attached as Exhibit VI current projected demand and energy requirements for each of the joint owners through 1990 with corresponding system capacity. The compound growth rate for PSO projections (VIa) is 5.5%; ACI (VIb), 7.7%; WFEC (VIc), 9.6%.

Very truly yours,

A handwritten signature in dark ink, appearing to read "V. L. Conrad", with a large, sweeping initial "V" that extends to the left.

V. L. Conrad  
Manager, Licensing and Compliance

VLC:dm

Attachments

cc: M. E. Fate, Jr.  
T. N. Ewing  
J. Gallo

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## BLACK FOX STATION

Schedule

<u>EVENT</u>	<u>DATE</u>	<u>MONTHS FROM CP</u>
Construction Permit	July 1, 1979	0
Unit 1 Fuel Load	January 1, 1985	66
Unit 1 Full Power (Commercial)	July 1, 1985	72
Unit 2 Fuel Load	January 1, 1988	102
Unit 2 Full Power (Commercial)	July 1, 1988	108

EXHIBIT IICOMPARISON OF BFS  
ESTIMATES

(Dollars X 1000)

	<u>June 77</u>	<u>April 79</u>
Land, Materials and Equipment	632,705	613,572
Construction	<u>241,291</u>	<u>385,297</u>
Subtotal	873,996	998,869
Engr & Constr Management	184,209	249,378
Sales Tax	(incl)	3,839
Undistributed	(incl)	29,694
Escalation	279,374	329,275
Contingency	96,229	227,900
Interest	<u>316,192</u>	<u>549,770</u>
Total	1,750,000	2,338,725
Cost/KW	761	1,038

CHANGE COMPARISON

(Dollars X 1000)

	<u>Change (% Total)</u>	<u>Balance</u>
Total Increase	.	638,000
Interest (Delay & Sched Ext)	233,578 (37%)	404,422
Escalation (Delay)	49,900 ( 8%)	354,522
Equipment & Construction	124,873 (20%)	229,649
Unknown	29,694 ( 5%)	199,955
Contingency	131,671 (21%)	68,284
Engr/Constr Management	65,169 (10%)	3,115

## ATTACHMENT FOR ITEM NO. 3.a.

Applicant: Public Service Company of Oklahoma Nuclear Plant: Black Fox

Sources of Funds for System-Wide Construction Expenditures During Period  
of Construction of Subject Nuclear Power Plant  
(Millions of Dollars)

Security Issues and other funds	Construction Years of Subject Nuclear Power Plant									
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Common Stock	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Preferred Stock	25	0	35	25	25	40	0	30	0	0
Long-Term Debt	125	105	100	100	95	115	60	75	75	100
Notes Payable	14	6	14	4	38	15	13	( 30)	( 22)	( 41)
Contributions from Parent-Net	45	40	70	82	80	50	25	20	0	0
Other Funds	( 27)	( 27)	( 27)	( 2)	( 7)	( 14)	( 2)	( 2)	( 17)	( 22)
Total	182	124	192	209	231	206	96	53	36	37
Internal Funds	53	62	82	101	122	133	145	159	177	180
Net Income										
Less:										
Preferred Dividends	( 5)	( 7)	( 9)	( 12)	( 14)	( 17)	( 19)	( 20)	( 21)	( 21)
Common Dividends	( 31)	( 36)	( 45)	( 55)	( 65)	( 75)	( 83)	( 89)	( 95)	( 100)
Working Capital	( 17)	( 1)	( 1)	1	7	4	1	( 14)	( 6)	( 5)
Deferred Taxes	15	17	19	22	26	41	51	71	80	75
Invest. Tax Cred., Defer.	23	17	19	23	20	25	16	25	18	25
Depreciation & Amort.	41	49	54	57	60	84	132	140	158	211
Less: AFDC	( 24)	( 19)	( 31)	( 50)	( 68)	( 76)	( 56)	( 71)	( 69)	( 37)
Total	55	82	88	87	88	119	187	201	242	328
TOTAL FUNDS	\$ 237	\$ 206	\$ 280	\$ 296	\$ 319	\$ 325	\$ 283	\$ 294	\$ 278	\$ 365
Construction Expenditures*										
Nuclear Power Plants	\$ 65	\$ 97	\$ 175	\$ 199	\$ 212	\$ 193	\$ 119	\$ 68	\$ 67	\$ 113
Other	172	109	105	97	107	132	164	226	211	252
Total Const. Exp's.	\$ 237	\$ 206	\$ 280	\$ 296	\$ 319	\$ 325	\$ 283	\$ 294	\$ 278	\$ 365
Subject Nuclear Plant	\$ 55	\$ 97	\$ 174	\$ 196	\$ 209	\$ 185	\$ 104	\$ 36	\$ 4	\$ 2

\*Exclusive of AFDC (allowance for funds used during construction)

## ASSOCIATED QUESTION 4C

	<u>Yearly Total a)</u>	<u>Associated</u>
1973 - 1978	80.2	17.4
1979	106.5	23.1
1980	159.1	34.5
1981	285.3	61.9
1982	322.2	69.9
1983	343.4	74.5
1984	302.8	65.7
1985	170.9	37.1
1986	58.2	12.6
1987	6.8	1.5
1988	3.5	.76

a) Does not include interest during construction.

EXHIBIT V

WESTERN QUESTION 4C

	<u>Yearly Total</u> a)	<u>Western</u>
1973 - 1978	80.2	14.0
1979	106.5	18.5
1980	159.1	27.7
1981	285.3	49.6
1982	322.2	56.1
1983	343.4	59.8
1984	302.8	52.7
1985	170.9	29.7
1986	58.2	10.1
1987	6.8	1.2
1988	3.5	.6

a) Does not include interest during construction.

HISTORICAL AND PROJECTED PSO NET SYSTEM  
PEAK LOAD DEMANDS AND ENERGY REQUIREMENTS

<u>Year</u>	<u>System Capacity</u>	<u>Demand MW</u>	<u>Net System MWH</u>
Historical			
1965	975	1000	4,240,417
1966	975	1138	4,623,664
1967	1293	1166	4,838,809
1968	1268	1289	5,329,509
1969	1268	1453	5,926,225
1970	1718	1550	6,481,587
1971	1738	1610	6,854,698
1972	1726	1828	7,803,012
1973	1696	1843	8,198,314
1974	2252	2070	8,645,907
1975	2422	2071	9,171,251
1976	2880	2193	9,577,367
1977	2912	2405	10,627,527
1978	2877	2527	11,219,850
Projected			
1979	3304	2660	11,777,700
1980	3754	2808	12,335,200
1981	3754	2967	13,029,700
1982	3754	3110	13,687,900
1983	3754	3292	14,417,300
1984	3754	3482	15,279,400
1985	4452	3680	16,185,500
1986	4452	3887	17,140,300
1987	4498	4101	18,190,400
1988	5045	4326	19,325,000
1989	5095	4564	20,390,100
1990	5257	4815	21,511,500

HISTORICAL AND PROJECTED ASSOCIATED ELECTRIC NET SYSTEM  
PEAK LOAD DEMANDS AND ENERGY REQUIREMENTS

<u>Year</u>	<u>System Capacity</u>	<u>Demand MW</u>	<u>Net System MWH</u>
Historical			
1965	143	352	1,860,818
1966	323	427	2,060,033
1967	323	473	2,256,949
1968	323	501	2,617,993
1969	626	585	2,928,110
1970	626	650	3,272,486
1971	626	824	4,248,130
1972	1226	972	5,294,207
1973	1226	1035	5,612,544
1974	1226	1163	5,896,688
1975	1226	1222	6,518,713
1976	1226	1507	7,362,730
1977	1828	1598	8,467,243
1978	1828	1679	8,466,324
Projected			
1979	1828	1960	9,745,000
1980	1828	2104	10,439,000
1981	1828	2259	11,197,000
1982	2458	2409	11,842,000
1983	2458	2571	12,533,000
1984	2458	2745	13,273,000
1985	2708	2932	14,077,000
1986	2708	3133	14,917,000
1987	2958	3350	15,861,000
1988	2958	3584	16,876,000
1989	2958	3835	17,965,000
1990	2958	4105	19,136,000

HISTORICAL AND PROJECTED WESTERN NET SYSTEM  
PEAK LOAD DEMANDS AND ENERGY REQUIREMENTS

<u>Year</u>	<u>System Capacity</u>	<u>Demand MW</u>	<u>Net System MWH</u>
Historical			
1965	137	125	620,675
1966	137	140	709,287
1967	137	150	789,137
1968	280	165	860,204
1969	280	196	955,507
1970	280	209	1,054,027
1971	280	237	1,162,482
1972	280	255	1,331,914
1973	280	286	1,431,717
1974	280	488	2,308,820
1975	424	496	2,527,941
1976	424	566	2,755,379
1977	724	595	3,021,428
1978	724	638	3,276,830
Projected			
1979	724	781	3,628,000
1980	724	846	3,949,000
1981	724	921	4,301,000
1982	1100	999	4,653,000
1983	1100	1085	5,034,000
1984	1100	1176	5,443,000
1985	1300	1276	5,886,000
1986	1300	1385	6,369,000
1987	1500	1502	6,887,000
1988	1500	1628	7,447,000
1989	1500	1768	8,057,000
1990	1500	1916	8,713,000