



ARKANSAS POWER & LIGHT COMPANY
POST OFFICE BOX 551 LITTLE ROCK, ARKANSAS 72203 (501) 371-4000

January 9, 1980

1-010-09

Director of Nuclear Reactor Regulation
ATTN: Mr. R. W. Reid, Chief
Operating Reactor Branch #4
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Arkansas Nuclear One-Unit 1
Docket No. 50-313
License No. DPR-51
Fire Protection
(File: 1510, 2040)

Gentlemen:

Enclosed are hydraulic calculations required by item 3.11 of the ANO-1 Fire Protection SER. Please note that these calculations show that sufficient water pressure is available to supply the required quantity of water to two reactor building sprinkler systems plus two hose reels simultaneously.

Very truly yours,

David C. Trimble

David C. Trimble
Manager, Licensing

DCT/MOW/gp

Enclosure

8001220363

90028036

SIZE PIPE & ATION	FLOW IN G.P.M.	PIPE SIZE	FITTING & DEVICES	PIPE EQUIV. LENGTH	FRICTION LOSS P.S.I./FT	REQUIRED P.S.I.	HYD. REF. PT ○	ELEV.	NOTES
0.5 SPW 100				LGTH. 10		PT 7.00	A		
	0 21	1		FTG.	.14	PF 1.40			
				TOT. 10		PE			
	0 21	1 1/2		LGTH. 10		PT 8.40			
	0 42			FTG.	.064	PF 0.64			
				TOT. 10		PE			
	0 21	1 1/2		LGTH. 10		PT 9.04			
	0 63			FTG.	.13	PF 1.30			
				TOT. 10		PE			
	0 21	1 1/2		LGTH. 10		PT 10.34			
	0 84			FTG.	.23	PF 2.30			
				TOT. 10		PE			
	0 21	1 1/2		LGTH. 10		PT 12.64			
	0 105			FTG.	.35	PF 3.50			
				TOT. 10		PE			
	0 21	2	3E, 1FLV	LGTH. 61		PT 16.14			
	0 126			FTG. 40	.14	PF 14.14		43x.43	
				TOT. 101		PE 18.40			
	0 126	3	IT, 2IE	LGTH. 230		PT 48.77	B		
	0 252			FTG. 162	.076	PF 29.79		2x.43	
				TOT. 392		PE 6.86			
6 REELS	0 150	3	2T, 2GV	LGTH. 60		PT 79.42			
	0 402		8E	FTG. 88	.18	PF 26.64		24x.43	
				TOT. 148		PE 10.32			
	0	4	6E, 1EE	LGTH. 56		PT 116.39			
	0 402		1GV, IT	FTG. 86	.048	PF 6.82		<4x.43>	
				TOT. 142		PE <1.72>			
	0	6		LGTH. 50		PT 121.48			
	0 402			FTG.	.0058	PF 0.29			
				TOT. 50		PE			
	0	10	IT	LGTH. 52		PT 121.77			
	0 402			FTG.	.00044	PF .02			
				TOT. 52		PE			
	0			LGTH.		PT 121.79			
	0			FTG.		PF			
	0			TOT.		PE			
	0			LGTH.		PT			
	0			FTG.		PF			
	0			TOT.		PE			
	0			LGTH.		PT			
	0			FTG.		PF			
	0			TOT.		PE			
	0			LGTH.		PT			
	0			FTG.		PF			
	0			TOT.		PE			
	0			LGTH.		PT			
	0			FTG.		PF			
	0			TOT.		PE			
	0			LGTH.		PT			
	0			FTG.		PF			
	0			TOT.		PE			
	0			LGTH.		PT			
	0			FTG.		PF			
	0			TOT.		PE			
	0			LGTH.		PT			
	0			FTG.		PF			
	0			TOT.		PE			

ATTACHMENT To B.L.G.-1086

Pg 1/2

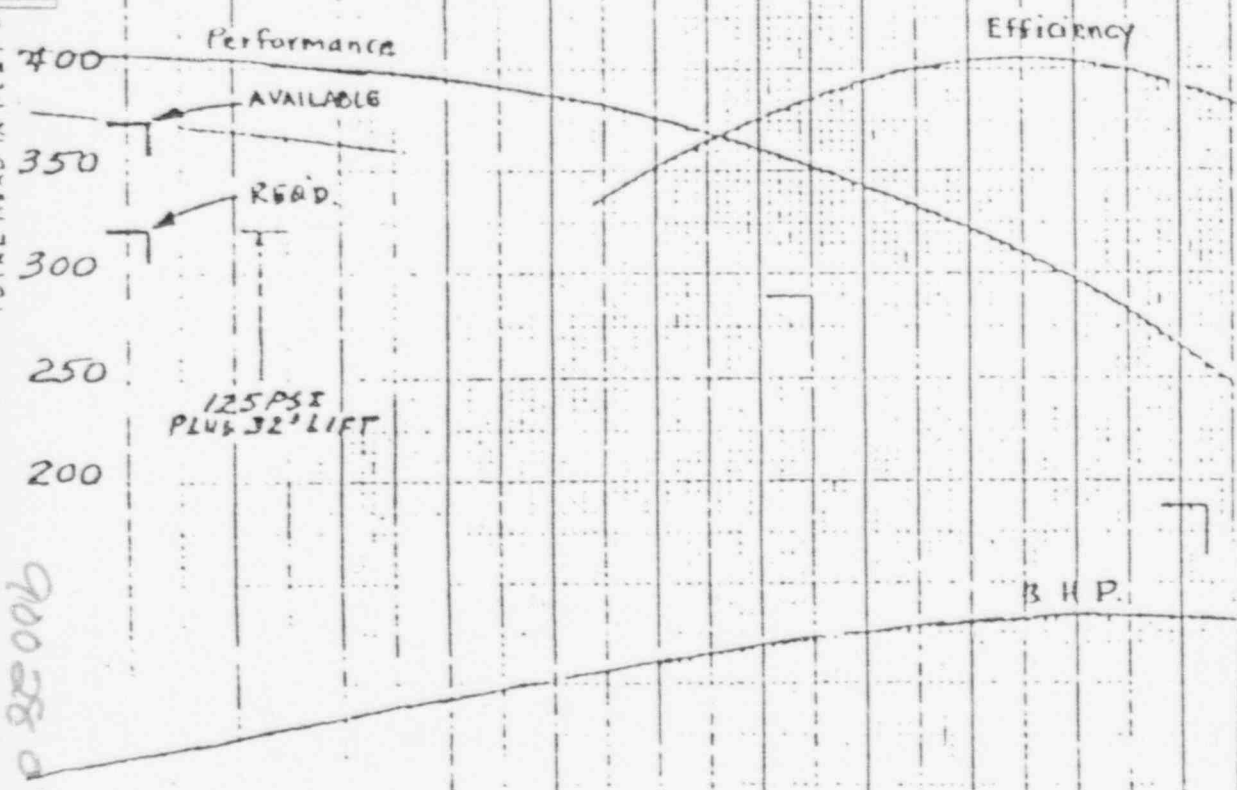
6600-M32-30-1

CERTIFIED PUMP PERFORMANCE CURVE

BECHTEL CORP. AGENT FOR
 ARIZONA POWER & LIGHT CO.
 TANDON, ARIZONA
 BECHTEL P.O. 6600-M-32-AC
 TANDON 2 TAG P-6B PUMP K-5 Engine
 FIRE PUMP WITH DIESEL
 ENGINE DRIVER

DISTRIBUTION	DATE	1-13-71
ENGINEER	CLIENT	ARIZONA POWER & LIGHT CO.
ARCH	ARCH	
MECH	MECH	
ELECT	ELECT	
LAYOUT	LAYOUT	
INSTR	INSTR	
SCHED	SCHED	
EST. FILE	EST. FILE	
CONST. SI	CONST. SI	
O. A. FILE	O. A. FILE	
RECORD	TICKLER	BECHTEL CORP. SAN FRANCISCO

RECORD PRINT



BECHTEL SAN FRANCISCO	JOB No. 6600				
VENDOR'S DRAWING REVIEW					
1 <input checked="" type="checkbox"/> Approved - Manufacturing may proceed. 2 <input type="checkbox"/> Approved - Submit final drawing - Manufacturing may proceed. 3 <input type="checkbox"/> Approved - rest as noted - Make changes and Submit final drawing - Manufacturing may proceed as approved. 4 <input type="checkbox"/> Not Approved - Correct and resubmit. 5 <input checked="" type="checkbox"/> Review not required - Manufacturing may proceed.					
Approval of this drawing does not relieve Supplier from full compliance with Contract or Purchase Order requirements.					
By: <u>gias</u>	Date: <u>3/8/71</u>				
Reviewed: <table border="1"> <tr> <td>C</td> <td>E</td> <td>L</td> <td>H</td> </tr> </table>		C	E	L	H
C	E	L	H		

PUMP NO. 201-00000	STAGES 3	SIZE FIGURE 16" H. 109 L. 116
TESTED 1-13-71	DRIVER ENGINE	IMPELLER T-SHAPED
Certified Correct by <u>gias</u>	DATE 1-13-71	IMP. DIA. 12.04 11.44
ENCH		P.M. 12.04

ORIGINAL

90028038