

**DUKE POWER COMPANY**

P.O. BOX 33189  
CHARLOTTE, N.C. 28242

HAL B. TUCKER  
VICE PRESIDENT  
NUCLEAR PRODUCTION

TELEPHONE  
(704) 373-4531

March 14, 1984

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Attention: Ms. E. G. Adensam, Chief  
Licensing Branch No. 4

Re: Catawba Nuclear Station  
Docket Nos. 50-413 and 50-414

Dear Mr. Denton:

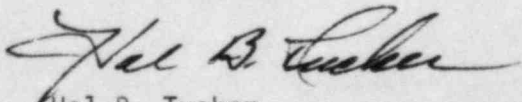
On February 14, 1984 representatives from utilities with NTOL units met with the Commission to discuss operating shift experience requirements. This meeting was a follow-up to a January 26, 1984 meeting with Commissioner Gilinsky, you, and other representatives from the NRC Staff.

As committed in the above meetings, Duke Power is providing (Attachment 1) a summary of the experience for the operations personnel to be licensed on Catawba Unit 1. Included in this attachment are the normal shift personnel (Shift Supervisor, Assistant Shift Supervisor, Nuclear Control Operator, and Assistant Nuclear Control Operator) as well as other operations staff personnel who will also be licensed on Catawba Unit 1. The latter group will likely fill the positions of Shift Advisors and Shift Engineers (STAs).

Based on the experience requirements recommended by the industry representatives (Attachment 2), we would expect to supplement the Catawba Unit 1 on-shift staff with Shift Advisors until such time as the experience requirements were fully met. These advisors would be drawn from the Catawba, McGuire, or Oconee station organizations and would meet the requirements for the Shift Advisor (Attachment 3).

Therefore, based on the operating shift experience requirements developed by the industry and the actual experience levels at Catawba and available within Duke Power, we have concluded that sufficient experience is available to start up and operate Catawba Unit 1.

Very truly yours,

  
Hal B. Tucker

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Attachments

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Mr. Harold R. Denton, Director  
March 14, 1984  
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cc: Mr. James P. O'Reilly, Regional Administrator  
U. S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street, NW, Suite 2900  
Atlanta, Georgia 30303

Mr. Hugh Thompson, Director  
Division of Human Factor Safety  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

NRC Resident Inspector  
Catawba Nuclear Station

Mr. Robert Guild, Esq.  
Attorney-at-Law  
P. O. Box 12097  
Charleston, South Carolina 29412

Palmetto Alliance  
2135½ Devine Street  
Columbia, South Carolina 29205

Mr. Jesse L. Riley  
Carolina Environmental Study Group  
854 Henley Place  
Charlotte, North Carolina 28207

DATE

PLANT NAME ATAWABAUTILITY Duke PowerO.L. DATE 5/84NUCLEAR POWER PLANT EXPERIENCE  
FOR OPERATING SHIFT POSITIONS (NOTE 1)

## OPERATING SHIFT EXPERIENCE

JOB TITLE: OPERATING / ASST. OP. ENGINEER  
(NOTE 2)

ENTER DATA: MONTHS/MONTHS X WEIGHTING FACTOR

ATTACHMENT 1

Page 1 of 8

TYPE OF EXPERIENCE	WEIGHTING FACTOR	MAXIMUM CREDIT	1	2	3	4	5	6	7	8	9	10
1. SAME TYPE COMMERCIAL SRO	1.00	NO LIMIT			21 21		33 33	42.5 42.5				
2. OTHER COMMERCIAL SRO	.75	NO LIMIT										
3. SAME TYPE COMMERCIAL RO	1.00	NO LIMIT	10 10		7 7	5 5	21.5 21.5	10 10				
4. OTHER COMMERCIAL RO	0.75	NO LIMIT										
5. NAVY (MILITARY) NUCLEAR (RO, EWS, EOWW, PPWS) (OTHER)	0.50 0.25	36 MONTHS	2 2.5		24 12	24 12	48 24	48 24				
6. SIMULATOR (REFERENCE PLANT) (SIMILAR)	5.00 3.00	12 MONTHS (12 MONTHS) (9 MONTHS)	1.25 2.5	3.45 9	.63 1.89	.63 1.89	1.5 4.5	1.5 4.5	1.5 4.5	3.4 9		
7. NUCLEAR PLANT EXPERIENCE ON SHIFT (OWN PLANT) (LESS THAN 1 1/2 YEARS PRIOR TO F.L.) (MORE THAN 1 1/2 YEARS PRIOR TO F.L.)	0.75 0.50	24 MONTHS (12 MONTHS) (12 MONTHS)	18 12	18 12	18 12	18 12	18 12	18 12	18 12	18 12	18 12	18 12
8. LICENSED CLASSROOM TRAINING AND EXAM (OWN PLANT)	0.50	9 MONTHS	9.375 4.68	13.5 6.75	7.5 3.75	12.5 6.25	17 8.5	14 7	18 9	16.25 8.14		
9. PARTICIPATION AT OPERATING PLANT	0.75	12 MONTHS	7.5 5.6	10.5 4.7	1.25 1.74	1.0 1.75	1.25 1.94	1.25 1.94	1.875 1.41	0 0		
10. OTHER NUCLEAR PLANT EXPERIENCE	0.25	12 MONTHS	20 5	28 7	12 3	3.75 0.94	3.75 0.94	3.75 0.94	12 3	24 6		
11. CONDUCTING LICENSE TRAINING	0.25	9 MONTHS	43 9	14 4								
12. DEGREE (ENGINEERING, APPLIED SCIENCE OR EQUIVALENT) (BACHELORS DEGREE) (ASSOCIATES DEGREE)		12 MONTHS (12 MONTHS) (6 MONTHS)		48 12			24 6			48 12		
TOTAL NUCLEAR PLANT EXPERIENCE:			63.24	57.41	89.58	73.89	135.19	125.69	50.91	59.14		
HOT PARTICIPATION EXPERIENCE												
TIME > 20% PWR/RWR (WKS)			46.55	2.71	126.7	25.98	241.4	232.7	8.12	0		
STARTUP & SHUTDOWN (YES/NO)			YES	NO	NO	NO	NO	NO	NO	YES		
MONTHS ON SHIFT 1+3 - 9 (unweighted)			10.75	.625	29.25	6.0	55.75	53.75	1.875	0		

x 1.33

NOTE 1: SEE "INSTRUCTIONS FOR USE OF NUCLEAR POWER PLANT EXPERIENCE FACTORS FOR OPERATING SHIFT POSITIONS (OL APPLICANTS)"

NOTE 2: INCLUDE ALL SHIFT SUPERVISORS (SS), SHIFT SRO'S, REACTOR OPERATORS (RO) AND SHIFT TECHNICAL ADVISORS (STA).

NOTE 3: Raw data statistics for individuals identified with (X) have not been compared with the License Applications.

CHECK ONE OF THE FOLLOWING:

- ☐ a. Shift advisors must be used to satisfy the "hot participation experience" requirements of the utility plan.
- ☒ b. Shift advisors will probably be required, at least for some shifts.
- ☐ c. Do not plan to use shift advisors unless some unforeseen circumstance arises.

DATE

PLANT NAME CATAWBAUTILITY DUKE POWERO.L. DATE 5/84

## OPERATING SHIFT EXPERIENCE

JOB TITLE: JR, ASST. ASSOC ENGINEER  
(NOTE 2)

ENTER DATA: MONTHS/MONTHS X WEIGHTING FACTOR

ATTACHMENT 1

Page 2 of 8

NUCLEAR POWER PLANT EXPERIENCE  
FOR OPERATING SHIFT POSITIONS (NOTE 1)

TYPE OF EXPERIENCE	WEIGHTING FACTOR	MAXIMUM CREDIT	1	2	(X) 3	(X) 4	5	(X) 6	7	8	9	10
1. SAME TYPE COMMERCIAL SRO	1.00	NO LIMIT										
2. OTHER COMMERCIAL SRO	.75	NO LIMIT										
3. SAME TYPE COMMERCIAL RO	1.00	NO LIMIT										
4. OTHER COMMERCIAL RO	0.75	NO LIMIT										
5. NAVY (MILITARY) NUCLEAR (RO, ENS, EOW, PFWS) (OTHER)	0.50 0.25	36 MONTHS		7 35								
6. SIMULATOR (REFERENCE PLANT) (SIMILAR)	5.00 3.00	12 MONTHS (12 MONTHS) (9 MONTHS)	33.35 9 3.4 9	7.5 2.25	7.5 2.25	33.35 9 3.375	7.5 2.25	7.5 2.25				
7. NUCLEAR PLANT EXPERIENCE ON SHIFT (OWN PLANT) (LESS THAN 1 1/2 YEARS PRIOR TO F.L.) (MORE THAN 1 1/2 YEARS PRIOR TO F.L.)	0.75 0.50	24 MONTHS (12 MONTHS) (12 MONTHS)	18 12 8 12	18 12 8 12	18 12 8 12	18 12 8 12	18 12 8 12	18 12 8 12	18 12 8 12			
8. LICENSED CLASSROOM TRAINING AND EXAM (OWN PLANT)	0.50	9 MONTHS	17.575 8.775	12 6 6.1	13.5 6.75	13.5 6.75	13.5 6.75	13.5 6.75	13.5 6.75	13.5 6.75	14 7	
9. PARTICIPATION AT OPERATING PLANT	0.75	12 MONTHS	2 1.5	2 1.5	3 2.25	3 2.25	2 1.5	3 2.25	3 2.25	3 2.25	3 2.25	
10. OTHER NUCLEAR PLANT EXPERIENCE	0.25	12 MONTHS			47 11.75		18 4.5					
11. CONDUCTING LICENSE TRAINING	0.25	9 MONTHS										
12. DEGREE (ENGINEERING, APPLIED SCIENCE OR EQUIVALENT) (BACHELORS DEGREE) (ASSOCIATES DEGREE)		12 MONTHS (12 MONTHS) (6 MONTHS)	48 12	48 12	48 12	48 12	48 12	48 12	48 12	48 12	48 12	
TOTAL NUCLEAR PLANT EXPERIENCE:			55.29	56.1	59.0	33.25	57.8	54.16	38.5			
HOT PARTICIPATION EXPERIENCE												
TIME > 20% PHR/M/R (WKS)			8.66	8.66	12.99	12.99	8.66	13.64	12.99			
STARTUP & SHUTDOWN (YES/NO)			NO	YES	NO	NO	YES	YES	NO			
MONTHS ON SHIFT			2	2	3	3	2	3.15	3			

NOTE 1: SEE "INSTRUCTIONS FOR USE OF NUCLEAR POWER PLANT EXPERIENCE FACTORS FOR OPERATING SHIFT POSITIONS (OL APPLICANTS)"

NOTE 2: INCLUDE ALL SHIFT SUPERVISORS (SS), SHIFT SRO'S, REACTOR OPERATORS (RO) AND SHIFT TECHNICAL ADVISORS (STA).

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DATE

PLANT NAME: CATAWBAUTILITY DUKE POWERO.L. DATE 5/84NUCLEAR POWER PLANT EXPERIENCE  
FOR OPERATING SHIFT POSITIONS (NOTE 1)

OPERATING SHIFT EXPERIENCE

JOB TITLE: SHIFT SUPERVISOR  
(NOTE 2)

ENTER DATA: MONTHS/MONTHS X WEIGHTING FACTOR

ATTACHMENT 1

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TYPE OF EXPERIENCE	WEIGHTING FACTOR	MAXIMUM CREDIT	1	2	3	(X) 4	5	6	7	8	9	10
1. SAME TYPE COMMERCIAL SRO	1.00	NO LIMIT										
2. OTHER COMMERCIAL SRO	.75	NO LIMIT										
3. SAME TYPE COMMERCIAL RO	1.00	NO LIMIT	22	22								
4. OTHER COMMERCIAL RO	0.75	NO LIMIT										
5. NAVY (MILITARY) NUCLEAR (RO, EWS, EOOW, PWNS) (OTHER)	0.50 0.25	36 MONTHS	24 12			17 8.5		26 18				
6. SIMULATOR (REFERENCE PLANT) (SIMILAR)	5.00 3.00	12 MONTHS (12 MONTHS) (9 MONTHS)	66 16.5	72 18		43 10.75		31 7.75	16 4			
7. NUCLEAR PLANT EXPERIENCE ON SHIFT (OWN PLANT) (LESS THAN 1 1/2 YEARS PRIOR TO F.L.) (MORE THAN 1 1/2 YEARS PRIOR TO F.L.)	0.75 0.50	24 MONTHS (12 MONTHS) (12 MONTHS)	3.475 9	1.25 3.75	3.475 9	.75 2.25	3.325 9	1.25 3.75	3.325 9			
8. LICENSED CLASSROOM TRAINING AND EXAM (OWN PLANT)	0.50	9 MONTHS	18 12	18 12	15 12	13 12	18 12	18 12	18 12	18 12		
9. PARTICIPATION AT OPERATING PLANT	0.75	12 MONTHS	51 12	53 12	51 12	12 12	51 12	51 12	51 12	51 12		
10. OTHER NUCLEAR PLANT EXPERIENCE	0.25	12 MONTHS	11.1 5.55	7.375 4.69	18 9	15.5 7.75	16.625 8.31	12.05 6.03	16.445 8.22			
11. CONDUCTING LICENSE TRAINING	0.25	9 MONTHS	3 2.25	1.5 1.125	2.75 2.06	4 3	3 2.25	2 1.5	2.5 1.875			
12. DEGREE (ENGINEERING, APPLIED SCIENCE OR EQUIVALENT) (BACHELORS DEGREE) (ASSOCIATES DEGREE)		12 MONTHS (12 MONTHS) (6 MONTHS)	50 12	48 12	22 5.5	12 12	30 7.5	49 12	37 9.25			
TOTAL NUCLEAR PLANT EXPERIENCE:			109.3	63.57	49.54	68.3	51.06	73.03	56.37			
HOT PARTICIPATION EXPERIENCE			108.25	6.495	11.91	17.32	12.99	8.666	10.825			
TIME > 20% PWR/BWR (WKS)			YES	NO	YES	YES	NO	NO	NO			
STARTUP & SHUTDOWN (YES/NO)			25	1.5	2.75	4	3	2	2.5			
MONTHS ON SHIFT												

NOTE 1: SEE "INSTRUCTIONS FOR USE OF NUCLEAR POWER PLANT EXPERIENCE FACTORS FOR OPERATING SHIFT POSITIONS (OL APPLICANTS)"

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DATE \_\_\_\_\_  
PLANT NAME CATAWBA  
UTILITY DUKE POWER  
O.L. DATE 5/84

OPERATING SHIFT EXPERIENCE

JOB TITLE: ASST. SHIFT SUPV.  
(NOTE 2)

ATTACHMENT 1

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NUCLEAR POWER PLANT EXPERIENCE  
FOR OPERATING SHIFT POSITIONS (NOTE 1)

ENTER DATA: MONTHS/MONTHS X WEIGHTING FACTOR

TYPE OF EXPERIENCE	WEIGHTING FACTOR	MAXIMUM CREDIT	(X) (X) (X) (X) (X)											
			1	2	3	4	5	6	7	8	9	10		
1. SAME TYPE COMMERCIAL SRO	1.00	NO LIMIT												
2. OTHER COMMERCIAL SRO	.75	NO LIMIT												
3. SAME TYPE COMMERCIAL RO	1.00	NO LIMIT												
4. OTHER COMMERCIAL RO	0.75	NO LIMIT												
5. NAVY (MILITARY) NUCLEAR (RO, EWS, EOOM, PPHS) (OTHER)	0.50 0.25	36 MONTHS												
6. SIMULATOR (REFERENCE PLANT) (SIMILAR)	5.00 3.00	12 MONTHS (12 MONTHS) (9 MONTHS)												
7. NUCLEAR PLANT EXPERIENCE ON SHIFT (OWN PLANT) (LESS THAN 1 1/2 YEARS PRIOR TO F.L.) (MORE THAN 1 1/2 YEARS PRIOR TO F.L.)	0.75 0.50	24 MONTHS (12 MONTHS) (12 MONTHS)												
8. LICENSED CLASSROOM TRAINING AND EXAM (OWN PLANT)	0.50	9 MONTHS												
9. PARTICIPATION AT OPERATING PLANT	0.75	12 MONTHS												
10. OTHER NUCLEAR PLANT EXPERIENCE	0.25	12 MONTHS												
11. CONDUCTING LICENSE TRAINING	0.25	9 MONTHS												
12. DEGREE (ENGINEERING, APPLIED SCIENCE OR EQUIVALENT) (BACHELORS DEGREE) (ASSOCIATES DEGREE)		12 MONTHS (12 MONTHS) (6 MONTHS)												
TOTAL NUCLEAR PLANT EXPERIENCE:			44.46	44.05	57.48	52.97	55.18	55.1	52.9	53.6	49.9	78.9		
HOT PARTICIPATION EXPERIENCE														
TIME > 20% PWR/RWR (WKS)			14.18	11.04	4.87	9.85	12.99	12.99	12.99	17.32	17.32	11.91		
STARTUP & SHUTDOWN (YES/NO)			Yes	No	Yes	No	No	No	No	No	No	No		
MONTHS ON SHIFT			3.275	2.55	1.125	2.275	3	3	3	4	4	2.75		

NOTE 1: SEE "INSTRUCTIONS FOR USE OF NUCLEAR POWER PLANT EXPERIENCE FACTORS FOR OPERATING SHIFT POSITIONS (OL APPLICANTS)"

NOTE 2: INCLUDE ALL SHIFT SUPERVISORS (SS), SHIFT SRO'S, REACTOR OPERATORS (RO) AND SHIFT TECHNICAL ADVISORS (STA).

NOTE 3: Raw data statistics for individuals identified with (x) have not been compared with the License Applications.

CHECK ONE OF THE FOLLOWING:

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- ☒ b. Shift advisors will probably be required, at least for some shifts.
- ☐ c. Do not plan to use shift advisors unless some unforeseen circumstance arises.

DATE

PLANT NAME CATAWBAUTILITY DUKE POWERO.L. DATE 5/84

## OPERATING SHIFT EXPERIENCE

JOB TITLE: ASST. SHIFT SUPV. (CONT)  
(NOTE 2)

ENTER DATA: MONTHS/MONTHS X WEIGHTING FACTOR

ATTACHMENT 1

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NUCLEAR POWER PLANT EXPERIENCE  
FOR OPERATING SHIFT POSITIONS (NOTE 1)

TYPE OF EXPERIENCE	WEIGHTING FACTOR	MAXIMUM CREDIT	(X)	(X)	3 4 5 6 7 8 9 10									
			11	12										
1. SAME TYPE COMMERCIAL SRO	1.00	NO LIMIT												
2. OTHER COMMERCIAL SRO	.75	NO LIMIT												
3. SAME TYPE COMMERCIAL RO	1.00	NO LIMIT												
4. OTHER COMMERCIAL RO	0.75	NO LIMIT												
5. NAVY (MILITARY) NUCLEAR (RO, EWS, EOOW, PPWS) (OTHER)	0.50 0.25	36 MONTHS	108 36	12 6										
6. SIMULATOR (REFERENCE PLANT) (SIMILAR)	5.00 3.00	12 MONTHS (12 MONTHS) (9 MONTHS)	36 0	60 15										
7. NUCLEAR PLANT EXPERIENCE ON SHIFT (OWN PLANT) (LESS THAN 1 1/2 YEARS PRIOR TO F.L.) (MORE THAN 1 1/2 YEARS PRIOR TO F.L.)	0.75 0.50	24 MONTHS (12 MONTHS) (12 MONTHS)	1.5 4.5	2 6										
8. LICENSED CLASSROOM TRAINING AND EXAM (OWN PLANT)	0.50	9 MONTHS	10.5 5.25	15.5 7.75										
9. PARTICIPATION AT OPERATING PLANT	0.75	12 MONTHS	3 2.25	4 3										
10. OTHER NUCLEAR PLANT EXPERIENCE	0.25	12 MONTHS												
11. CONDUCTING LICENSE TRAINING	0.25	9 MONTHS												
12. DEGREE (ENGINEERING, APPLIED SCIENCE OR EQUIVALENT) (BACHELORS DEGREE) (ASSOCIATES DEGREE)		12 MONTHS (12 MONTHS) (6 MONTHS)												
TOTAL NUCLEAR PLANT EXPERIENCE:			63	61.8										
HOT PARTICIPATION EXPERIENCE														
TIME > 20% PWR/RWR (WKS)			12.99	17.32										
STARTUP & SHUTDOWN (YES/NO)			No	No										
MONTHS ON SHIFT			3	4										

NOTE 1: SEE "INSTRUCTIONS FOR USE OF NUCLEAR POWER PLANT EXPERIENCE FACTORS FOR OPERATING SHIFT POSITIONS (OW APPLICANTS)"

NOTE 2: INCLUDE ALL SHIFT SUPERVISORS (SS), SHIFT SRO'S, REACTOR OPERATORS (RO) AND SHIFT TECHNICAL ADVISORS (STA).

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DATE \_\_\_\_\_  
PLANT NAME CATAWBA  
UTILITY DUKE POWER  
O.L. DATE 5/84

OPERATING SHIFT EXPERIENCE

JOB TITLE: NUCLEAR CONTROL OPERATOR  
(NOTE 2)

ATTACHMENT 1  
Page 6 of 8

NUCLEAR POWER PLANT EXPERIENCE  
FOR OPERATING SHIFT POSITIONS (NOTE 1)

ENTER DATA: MONTHS/MONTHS X WEIGHTING FACTOR

TYPE OF EXPERIENCE	WEIGHTING FACTOR	MAXIMUM CREDIT	1	2	3	4	5	6	7	8	9	10
1. SAME TYPE COMMERCIAL SRO	1.00	NO LIMIT										
2. OTHER COMMERCIAL SRO	.75	NO LIMIT										
3. SAME TYPE COMMERCIAL RO	1.00	NO LIMIT										
4. OTHER COMMERCIAL RO	0.75	NO LIMIT										
5. NAVY (MILITARY) NUCLEAR (RO, EWS, EOW, PPWS) (OTHER)	0.50 0.25	36 MONTHS		13 3.25								
6. SIMULATOR (REFERENCE PLANT) (SIMILAR)	5.00 3.00	12 MONTHS (12 MONTHS) (9 MONTHS)	3.4 9	3.375 9	3.375 9	3.4 9	3.4 9	3.375 9	3.4 9	3.4 9		
7. NUCLEAR PLANT EXPERIENCE ON SHIFT (OWN PLANT) (LESS THAN 1 1/2 YEARS PRIOR TO F.L.) (MORE THAN 1 1/2 YEARS PRIOR TO F.L.)	0.75 0.50	24 MONTHS (12 MONTHS) (12 MONTHS)	18 12	18 12	18 12	18 12	18 12	18 12	18 12	18 12		
8. LICENSED CLASSROOM TRAINING AND EXAM (OWN PLANT)	0.50	9 MONTHS	24 9	18 9	22 9	21 9	22 9	22 9	11 9	15 9		
9. PARTICIPATION AT OPERATING PLANT	0.75	12 MONTHS	2 1.5	2 1.5	3 2.36	2 1.5	2 1.5	2 1.5	3 2.1	3 2.25		
10. OTHER NUCLEAR PLANT EXPERIENCE	0.25	12 MONTHS							34 8.5	21 5.25		
11. CONDUCTING LICENSE TRAINING	0.25	9 MONTHS										
12. DEGREE (ENGINEERING, APPLIED SCIENCE OR EQUIVALENT) (BACHELORS DEGREE) (ASSOCIATES DEGREE)		12 MONTHS (12 MONTHS) (6 MONTHS)			24 6				24 6	72 12		
TOTAL NUCLEAR PLANT EXPERIENCE:			43.5	46.75	50.36	43.5	43.5	44.1	55.74	60.04		
HOT PARTICIPATION EXPERIENCE												
TIME > 20% PWR/PWR (WKS)			8.66	8.66	13.64	8.66	8.66	12.12	12.99	12.99		
STARTUP & SHUTDOWN (YES/NO)			YES	NO	YES	YES	YES	YES	NO	NO		
MONTHS ON SHIFT			2	2	3.15	2	2	2.8	3	3		

NOTE 1: SEE "INSTRUCTIONS FOR USE OF NUCLEAR POWER PLANT EXPERIENCE FACTORS FOR OPERATING SHIFT POSITIONS (OL APPLICANTS)"

NOTE 2: INCLUDE ALL SHIFT SUPERVISORS (SS), SHIFT SRO'S, REACTOR OPERATORS (RO) AND SHIFT TECHNICAL ADVISORS (STA).

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DATE

PLANT NAME CATAWBAUTILITY DUKE POWERO.L. DATE 5/84NUCLEAR POWER PLANT EXPERIENCE  
FOR OPERATING SHIFT POSITIONS (NOTE 1)

OPERATING SHIFT EXPERIENCE

JOB TITLE: ASST. NUCLEAR CONTROL OPERATOR  
(NOTE 2)

ENTER DATA: MONTHS/MONTHS X WEIGHTING FACTOR

(X) (X) (X) (X) (X) (X) (X) (X) (X)

TYPE OF EXPERIENCE	WEIGHTING FACTOR	MAXIMUM CREDIT	1	2	(X) 3	(X) 4	(X) 5	(X) 6	(X) 7	(X) 8	(X) 9	(X) 10
1. SAME TYPE COMMERCIAL SRO	1.00	NO LIMIT										
2. OTHER COMMERCIAL SRO	.75	NO LIMIT										
3. SAME TYPE COMMERCIAL RO	1.00	NO LIMIT										
4. OTHER COMMERCIAL RO	0.75	NO LIMIT										
5. NAVY (MILITARY) NUCLEAR (RO, EWS, ECOM, FINS) (OTHER)	0.50 0.25	36 MONTHS	4									60 36
6. SIMULATOR (REFERENCE PLANT) (SIMILAR)	5.00 3.00	12 MONTHS (12 MONTHS) (9 MONTHS)	9 12	9 12	18 12	18 12	18 12	18 12	18 12	18 12	18 12	18 12
7. NUCLEAR PLANT EXPERIENCE OR SHIFT (OWN PLANT) (LESS THAN 1 1/2 YEARS PRIOR TO F.L.) (MORE THAN 1 1/2 YEARS PRIOR TO F.L.)	0.75 0.50	24 MONTHS (12 MONTHS) (12 MONTHS)	12 12	12 12	12 12	12 12	12 12	12 12	12 12	12 12	12 12	12 12
8. LICENSED CLASSROOM TRAINING AND EXAM (OWN PLANT)	0.50	9 MONTHS	9	9	9	9	9	9	9	9	9	9
9. PARTICIPATION AT OPERATING PLANT	0.75	12 MONTHS										
10. OTHER NUCLEAR PLANT EXPERIENCE	0.25	12 MONTHS										
11. CONDUCTING LICENSE TRAINING	0.25	9 MONTHS										
12. DEGREE (ENGINEERING, APPLIED SCIENCE OR EQUIVALENT) (BACHELORS DEGREE) (ASSOCIATES DEGREE)		12 MONTHS (12 MONTHS) (6 MONTHS)										
TOTAL NUCLEAR PLANT EXPERIENCE:			57.01	55.5	40.9	40.9	40.9	40.9	41.7	40.9	52.9	79.1
TIME > 20% PWR/RWR (WKS)												
STARTUP & SHUTDOWN (YES/NO)												
MONTHS ON SHIFT			8.66	8.66	12.99	12.99	12.99	12.99	12.99	12.99	12.99	12.99
			Yes	Yes	No	No	No	No	No	No	No	No
			2	2	3	3	3	3	3	3	3	3

NOTE 1: SEE "INSTRUCTIONS FOR USE OF NUCLEAR POWER PLANT EXPERIENCE FACTORS FOR OPERATING SHIFT POSITIONS (OL APPLICANTS)"

NOTE 2: INCLUDE ALL SHIFT SUPERVISORS (SS), SHIFT SRO'S, REACTOR OPERATORS (RO) AND SHIFT TECHNICAL ADVISORS (STA).

NOTE 3: Raw data statistics for individuals identified with (a) have not been compared with the license Applications.

CHECK ONE OF THE FOLLOWING:

- ☐ a. Shift advisors must be used to satisfy the "hot participation experience" requirements of the utility plan.
- ☒ b. Shift advisors will probably be required, at least for some shifts.
- ☐ c. Do not plan to use shift advisors unless some unforeseen circumstance arises.

DATE  
PLANT NAME CATAWBA  
UTILITY DUKE POWER  
O.L. DATE 5/84

OPERATING SHIFT EXPERIENCE

JOB TITLE: ASST. NUCLEAR CONTROL OPERATOR (CONT)  
(NOTE 2)

ATTACHMENT 1  
Page 8 of 8

NUCLEAR POWER PLANT EXPERIENCE  
FOR OPERATING SHIFT POSITIONS (NOTE 1)

ENTER DATA: MONTHS/MONTHS X WEIGHTING FACTOR

TYPE OF EXPERIENCE	WEIGHTING FACTOR	MAXIMUM CREDIT	(X) 11	(X) 12	3	4	5	6	7	8	9	10
1. SAME TYPE COMMERCIAL SRO	1.00	NO LIMIT										
2. OTHER COMMERCIAL SRO	.75	NO LIMIT										
3. SAME TYPE COMMERCIAL RO	1.00	NO LIMIT										
4. OTHER COMMERCIAL RO	0.75	NO LIMIT										
5. NAVY (MILITARY) NUCLEAR (RO, EWS, EOWW, PWS) (OTHER)	0.50 0.25	36 MONTHS	48 24	24 6								
6. SIMULATOR (REFERENCE PLANT) (SIMILAR)	5.00 3.00	12 MONTHS (12 MONTHS) (9 MONTHS)	1.875 5.625	1.875 5.625								
7. NUCLEAR PLANT EXPERIENCE ON SHIFT (OWN PLANT) (LESS THAN 1 1/2 YEARS PRIOR TO F.L.) (MORE THAN 1 1/2 YEARS PRIOR TO F.L.)	0.75 0.50	24 MONTHS (12 MONTHS) (12 MONTHS)	12 12	12 12								
8. LICENSED CLASSROOM TRAINING AND EXAM (OWN PLANT)	0.50	9 MONTHS	10.5 5.25 3	24 9 3								
9. PARTICIPATION AT OPERATING PLANT	0.75	12 MONTHS	2.25	2.25								
10. OTHER NUCLEAR PLANT EXPERIENCE	0.25	12 MONTHS										
11. CONDUCTING LICENSE TRAINING	0.25	9 MONTHS										
12. DEGREE (ENGINEERING, APPLIED SCIENCE OR EQUIVALENT) (BACHELORS DEGREE) (ASSOCIATES DEGREE)		12 MONTHS (12 MONTHS) (6 MONTHS)										
TOTAL NUCLEAR PLANT EXPERIENCE:			67.1	40.9								
HOT PARTICIPATION EXPERIENCE												
TIME > 20% PWR/PHR (WKS)			12.99	12.99								
STARTUP & SHUTDOWN (YES/NO)			No	No								
MONTHS ON SHIFT			3	3								

NOTE 1: SEE "INSTRUCTIONS FOR USE OF NUCLEAR POWER PLANT EXPERIENCE FACTORS FOR OPERATING SHIFT POSITIONS (OL APPLICANTS)"

NOTE 2: INCLUDE ALL SHIFT SUPERVISORS (SS), SHIFT SRO'S, REACTOR OPERATORS (RO) AND SHIFT TECHNICAL ADVISORS (STA).

NOTE 3: Raw data statistics for individuals identified with (x) have not been compared with the License Applications.

CHECK ONE OF THE FOLLOWING:

- ☐ a. Shift advisors must be used to satisfy the "hot participation experience" requirements of the utility plan.
- ☒ b. Shift advisors will probably be required, at least for some shifts.
- ☐ c. Do not plan to use shift advisors unless some unforeseen circumstance arises.

## OPERATING SHIFT EXPERIENCE REQUIREMENTS

POSITION	POWER PLANT EXPER. (IN YRS)	NUCLEAR POWER PLANT EXPER. (IN YRS)	LICENSE	*HOT PARTICIPATION EXPERIENCE ON SAME TYPE PLANT		
				>20% POWER	STARTUP & SHUT DOWN	6 MONTHS ON SHIFT
SHIFT SUPERVISOR	4	2	SRO	6 WEEKS	X	1 OF THE SRO'S
SENIOR OPERATOR	3	2	SRO	6 WEEKS		
LICENSED OPERATOR	3	1	RO			
LICENSED OPERATOR	3	1	RO			
TOTAL	13	6				

\*: IF ANY OF THE HOT PARTICIPATION REQUIREMENTS ARE NOT SATISFIED BY THESE INDIVIDUALS A QUALIFIED SHIFT ADVISOR IS REQUIRED TO BE ADDED.

ATTACHMENT 3

SHIFT ADVISOR

1. EXPERIENCE

- A. 4 YEARS POWER PLANT
- B. 2 YEARS OF WHICH IS NUCLEAR POWER PLANT
- C. 1 YEAR ONSHIFT AT A HOT NUCLEAR PLANT OF THE SAME TYPE -- WITH NRC LICENSE

2. TRAINING

MUST COMPLETE THE UTILITY'S QUALIFICATION PROGRAM TO INCLUDE:

- o PROCEDURES (ADMINISTRATIVE, NORMAL, ABNORMAL AND EMERGENCY)
- o TECH SPECS
- o SYSTEMS
- o EXAMINATION

NOTE: TRAINING WILL BE DETERMINED BY INDIVIDUAL'S PREVIOUS EXPERIENCE

3. RESPONSIBILITIES/DUTIES

- A. RESPONSIBILITIES AT THE SENIOR OPERATOR LEVEL WITH COMMENSURATE AUTHORITY WILL BE ASSIGNED BY SHIFT SUPERVISOR
- B. RESPONSIBLE TO RECOMMEND APPROPRIATE ACTIONS (INCLUDING SHUTDOWN) TO SHIFT SUPERVISOR
- C. THIS INDIVIDUAL WILL HAVE DIRECT ACCESS TO MANAGEMENT ABOVE THE SHIFT SUPERVISOR TO RESOLVE ANY DISAGREEMENTS THAT ARISE

4. DURATION

- A. UNTIL UTILITY MEETS STATED SHIFT EXPERIENCE REQUIREMENTS