



**Commonwealth Edison**

One First National Plaza, Chicago, Illinois  
Address Reply to: Post Office Box 767  
Chicago, Illinois 60690

March 19, 1984

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

Subject: Byron Generating Station Units 1 and 2  
Operating Shift Experience  
NRC Docket Nos. 50-454 and 50-455

Reference (a): February 28, 1984 letter from T. R. Tramm  
to H. R. Denton.

Dear Mr. Denton:

This is to provide information regarding the experience level of individuals assigned to shift operating positions at Byron Station. This information is submitted in response to a request from the NRC Commissioners to the Utility Group on Operating Shift Experience.

Enclosed is a tabulation showing the relevant experience of the various individuals who will work as Shift Engineer, Shift Foreman, Station Control Room Engineer, Nuclear Station Operator, and Equipment Operator during the initial operation of Byron Unit 1. This tabulation conforms to the shift operating experience assessment methodology discussed with the Commissioners on February 24, 1984.

A similar tabulation for the Braidwood operating staff is being prepared and will be provided as soon as possible.

Please direct any further questions regarding this matter to this office.

Very truly yours,

T. R. Tramm  
Nuclear Licensing Administrator

lm

cc: H. Thompson

Attachment

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DATE 3-9-84PLANT NAME BYRONUTILITY Commonwealth EdisonO.L. DATE 6-30-84NUCLEAR POWER PLANT EXPERIENCE  
FOR OPERATING SHIFT POSITIONS (NOTE 1)

## OPERATING SHIFT EXPERIENCE

JOB TITLE: SHIFT ENGINEER (SS) (SRO)  
(NOTE 2)

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	36/96	96/96								
4. OTHER COMMERCIAL RO	0.75	NO LIMIT										
5. NAVY (MILITARY) NUCLEAR (RO, ENS, EOOM, PPWS) (OTHER)	0.50 0.25	36 MONTHS	31/65	6/15	66/65	42/65	54/65					
6. SIMULATOR (REFERENCE PLANT) (SIMILAR)	5.00 3.00	12 MONTHS (12 MONTHS) (9 MONTHS)	0.25/1.25	0.25/1.25	0.25/1.25	0.25/1.25	0.25/1.25	0.25/1.25				
* * 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)	15/1.25	15/1.25	13/1.25	13/1.25	10/1.25	15/1.25				
8. LICENSED CLASSROOM TRAINING AND EXAM (OWN PLANT)	0.50	9 MONTHS	40/12	40/12	40/12	32/12	40/12	36/12				
9. PARTICIPATION AT OPERATING PLANT	0.75	12 MONTHS	10/5	10/5	10/5	10/5	10/5	10/5				
10. OTHER NUCLEAR PLANT EXPERIENCE	0.25	12 MONTHS	14/25	12/25	4/1	34/25	38/95	25/25				
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)					12					
TOTAL NUCLEAR PLANT EXPERIENCE:			88.25	35.5	143.75	49.25	49.5	54				
HOT PARTICIPATION EXPERIENCE												
TIME = 20% PWR/NWR (WKS)			112.5		300							
STARTUP & SHUTDOWN (YES/NO)			YES		YES							
MONTHS ON SHIP:			36		96							

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

CHECK ONE OF THE FOLLOWING:

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

- ☒ 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.

\* \* SHIFT EXPERIENCE & PROJECTED  
THROUGH JUNE 1984\* THIS TIME IS BASED ON 75% AVAILABILITY  
OF CECO'S ZION NUCLEAR POWER STATION

DATE 3-9-84

PLANT NAME BYRON

UTILITY Commonwealth Edison

O.L. DATE 6-30-84

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

OPERATING SHIFT EXPERIENCE

JOB TITLE: Shift Foreman (SF) - (SRO)

(NOTE 2)

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, ENS, ECOM, PFMS) (OTHER)	0.50 0.25	16 MONTHS										
6. SIMULATOR (REFERENCE PLANT) (SIMILAR)	5.00 1.00	12 MONTHS (12 MONTHS) (6 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:			21	16.5	44.02	35.25	22.75	33.5	28.75	39.25	48.75	32.75

NOT PARTICIPATION EXPERIENCE

TIME > 20% PMR/MR (MRS)

STARTUP & SHUTDOWN (YES/NO)

MONTHS ON SHIFT

CHECK ONE OF THE FOLLOWING:

NOTE 1: SEE INSTRUCTIONS FOR USE OF NUCLEAR POWER PLANT EXPERIENCE FACTORS FOR SHIFT ADVISORS MUST BE USED TO SATISFY THE "NOT PARTICIPATION" REQUIREMENTS OF THE UTILITY PLAN.

NOTE 2: INCLUDE ALL SHIFT SUPERVISORS (SS), SHIFT SRO'S, REACTOR OPERATORS (RO) ☒ a. Shift advisors will probably be required, at least for some shifts.

AND SHIFT TECHNICAL ADVISORS (STA). ☐ b. Do not plan to use shift advisors unless some unforeseen circumstance arises.

\*\*\* SHIFT EXPERIENCE IS PROVIDED THROUGHOUT THE YEAR \*\*\*

DATE 2-9-84PLANT NAME BYRONUTILITY COMMONWEALTH EdisonO.L. DATE 6-30-84

## OPERATING SHIFT EXPERIENCE

JOB TITLE: SHIFT FOREMAN (SF) - (SRO)  
(NOTE 2)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	54/54									
2. OTHER COMMERCIAL SRO	.75	NO LIMIT										
3. SAME TYPE COMMERCIAL RO	1.00	NO LIMIT	82/52	22/22								
4. OTHER COMMERCIAL RO	0.75	NO LIMIT										
5. NAVY (MILITARY) NUCLEAR (RO, CNS, ECOM, PPWS) (OTHER)	0.50 0.25	36 MONTHS										
6. SIMULATOR (REFERENCE PLANT) (SIMILAR)	5.00 3.00	12 MONTHS (12 MONTHS) (9 MONTHS)	025/025 025/025	025/025								
** 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	24 MONTHS (12 MONTHS)		11/825								
	0.50	(12 MONTHS)		40/12								
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	43/025	47/125								
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:			99.5	56.75								
HOT PARTICIPATION EXPERIENCE												
TIME > 20% PWR/HWR (WKS)			268.75	68.75								
STARTUP & SHUTDOWN (YES/NO)			YES	YES								
MONTHS ON SHIFT			86	22								

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).

\* THIS TIME IS BASED ON 75% AVAILABILITY  
OF CE Co's 2102 NUCLEAR POWER STATION

\*\* SHIFT EXPERIENCE IS PROHIBITED THROUGH JUNE 1984

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 1-2-84  
 PLANT NAME BYRON  
 UTILITY CONSUMERS POWER  
 O.L. DATE 6-30-84

OPERATING SHIFT EXPERIENCE

JOB TITLE: Station Controller Room Engineer (SRO) (STA)  
 (NOTE 2)

ENTER DATA: MONTHS/MONTHS X WEIGHTING FACTOR

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

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 NO	1.00	NO LIMIT										
4. OTHER COMMERCIAL NO	0.75	NO LIMIT										
5. NAVY (MILITARY); NUCLEAR (RO, EWS, ECOM, PPHS) (OTHER)	0.50 0.25	36 MONTHS										
6. SIMULATOR (REFERENCE PLANT) (SIMILAR)	5.00 3.00	12 MONTHS (12 MONTHS) (9 MONTHS)	0.25/1.25	0.25/1.25	0.25/1.25	0.25/1.25	0.25/1.25	0.25/1.25	0.25/1.25	0.25/1.25	0.25/1.25	0.25/1.25
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)	8/6	6.5/5	8/6	8/6	13/9.25	18/13.5				
8. LICENSED CLASSROOM TRAINING AND EXAM (OWN PLANT)	0.50	9 MONTHS	10/5	10/5	10/5	10/5	10/5	10/5				
9. PARTICIPATION AT OPERATING PLANT	0.75	12 MONTHS										
10. OTHER NUCLEAR PLANT EXPERIENCE	0.25	12 MONTHS	3.2/8	12/3.25	4.6/1.5	4.5/1.25	41/10.25	23/5.25				
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)	12	12	12	12	12	12	12			
TOTAL NUCLEAR PLANT EXPERIENCE:			34.5	2787	38	37.25	40.5	36				

NOT PARTICIPATION EXPERIENCE

TIME > 20% PWR/MWR (WRS)  
 STARTUP & SHUTDOWN (YES/NO)  
 MONTHS ON SHIFT

CHECK ONE OF THE FOLLOWING:

- 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 TECHNICIANS/ADVISORS (STA).
- ☒ a. Shift advisors must be used to satisfy the "not 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.

\*\*\* SHIFT EXPERIENCE IS RECORDED THROUGH JANUARY 1984



DATE 3-9-84

PLANT NAME Byron  
UTILITY Commonwealth Edison  
O.L. DATE 6-30-84

## OPERATING SHIFT EXPERIENCE

JOB TITLE: Nuclear Station Operator / Equipment Operator (RO)

(NOTE 2)

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, EMS, ECOM, PPMIS) (OTHER)	0.50 0.25	36 MONTHS										
6. SIMULATOR (REFERENCE PLANT) (SIMILAR)	5.00 3.00	12 MONTHS (12 MONTHS) (9 MONTHS)	0.25/12.5	0.25/12.5	0.25/12.5	0.25/12.5	0.25/12.5	0.25/12.5	0.25/12.5	0.25/12.5	0.25/12.5	0.25/12.5
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)	0.75/12.5	0.5/12.5	0.75/12.5	0.5/12.5	0.5/12.5	0.75/12.5	0.5/12.5	0.5/12.5	0.5/12.5	0.5/12.5
8. LICENSED CLASSROOM TRAINING AND EXAM (OWN PLANT)	0.10	9 MONTHS	15/112.5	15/112.5	15/112.5	15/112.5	15/112.5	15/112.5	15/112.5	15/112.5	15/112.5	15/112.5
9. PARTICIPATION AT OPERATING PLANT	0.75	12 MONTHS	40/112	40/112	40/112	40/112	40/112	40/112	40/112	40/112	40/112	40/112
10. OTHER NUCLEAR PLANT EXPERIENCE	0.25	12 MONTHS	10/5	10/5	10/5	10/5	10/5	10/5	10/5	10/5	10/5	10/5
11. CONDUCTING LICENSE TRAINING	0.25	9 MONTHS	12/3	44/11	20/5	29/25	20/7					
12. DEGREE (ENGINEERING, APPLIED SCIENCE OR EQUIVALENT) (BACHELORS DEGREE) (ASSOCIATES DEGREE)		12 MONTHS (12 MONTHS) (6 MONTHS)										
TOTAL NUCLEAR PLANT EXPERIENCE:			34.75	30	36.75	15	14.75	31.75	23.5	31.75	23.5	

## HOT PARTICIPATION EXPERIENCE

TIME > 20% PWR/RTR (YES)  
STARTUP & SHUTDOWN (YES/NO)  
MONTHS ON SHIFT

NOTE 1: SEE "INSTRUCTIONS FOR USE OF NUCLEAR POWER PLANT EXPERIENCE FACTORS FOR CHECK ONE OF THE FOLLOWING:

OPERATING SHIFT POSITIONS (OL APPLICANTS) -

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

☐ 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.

\*\* Shift experience is projected through June 1984.

DATE 3-9-84PLANT NAME ByronUTILITY Commonwealth EdisonO.L. DATE 6-30-84

## OPERATING SHIFT EXPERIENCE

JOB TITLE: Nuclear Station Operator/Equipment Operator (RO)  
(NOTE 2)NUCLEAR POWER PLANT EXPERIENCE  
FOR OPERATING SHIFT POSITIONS (NOTE 1)

ENTER DATA: MONTHS/MONTHS X WEIGHTING FACTOR

TYPE OF EXPERIENCE	WEIGHTING FACTOR	MAXIMUM CREDIT	11	12	13	14	15	16	17	18	19	20
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, EOOM, PPHS) (OTHER)	0.50 0.25	16 MONTHS										
6. SIMULATOR (REFERENCE PLANT) (SIMILAR)	5.00 3.00	12 MONTHS (12 MONTHS) (9 MONTHS)	0.25/1.25	0.25/1.25	0.25/1.25	0.25/1.25	0.25/1.25	0.25/1.25				
7. NUCLEAR PLANT EXPERIENCE ON SHIFT (OWN PLANT) (LESS THAN 1 1/2 YEARS PRIOR TO F.L.L.) (MORE THAN 1 1/2 YEARS PRIOR TO F.L.L.)	0.75 0.50	12 MONTHS (12 MONTHS) (12 MONTHS)	0.5/1.5	0.5/1.5	0.75/2.25	0.75/2.25	0.5/1.5	0.75/2.25				
8. LICENSED CLASSROOM TRAINING AND EXAM (OWN PLANT)	0.50	12 MONTHS	5/3.75		5/3.75	15/11.25		13/9.75				
9. PARTICIPATION AT OPERATING PLANT	0.25	12 MONTHS				40/12		16/8				
10. OTHER NUCLEAR PLANT EXPERIENCE	0.25	12 MONTHS	10/5	10/5	10/5	10/5	16/5	10/5				
11. CONDUCTING LICENSE TRAINING	0.25	9 MONTHS	43/10.25	29/7.25	70/12	12/3	23/5.75	36/9				
12. DEGREE (ENGINEERING, APPLIED SCIENCE OR EQUIVALENT) (BACHELORS DEGREE) (ASSOCIATES DEGREE)		12 MONTHS (12 MONTHS) (6 MONTHS)										
TOTAL NUCLEAR PLANT EXPERIENCE:			22.25	15	24.25	34.75	13.5	34.75				
NOT PARTICIPATION EXPERIENCE												
TIME > 20% PWR/NWR (WKS)												
STARTUP & SHUTDOWN (YES/NO)												
MONTHS ON SHIFT												

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).

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.

\*\* Shift experience is projected through June 1984.