UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

OFFICE OF THE
COMMISSIONER

February 23, 1984

NOTE FOR: TOM REHM

RE: LETTER FROM LEO R. ROMO

I would like to know what plans NRC has for increased inspection at Midland in order to reply to the attached letter. (See Marabito comments in enclosed press clipping.)

Thanks,
Roxanne

Roxanne Goldsmith

Attachment:
Ltr dtd 1/30/84
fm Leo R. Romo

LONE TREE COUNCIL
P. O. Box 421
Essexville, Michigan 48732

January 30, 1984

Commissioner Gilinski
United States
Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Commissioner Gilinski,

I read with great dismay the enclosed article in our local press. Mr. Marabito of Region III says the "extent of the quality assurance problems at Midland are not as pervasive as they were at Zimmer." This certainly is not encouraging for the many citizens who for years have wanted increased NRC involvement at Midland.

Mr. James Keppler, Region III administrator, reviewed a partial list of the Quality Assurance problems at Midland before the Subcommittee on Energy and the Environment on June 16, 1983. This, and the fact that the Construction Completion Program (which will identify problems) make Mr. Marabito's statement a bit premature.

On January 20, 1984, I spoke with an official in Mr. Richard DeYoung's office on the subject of increased NRC inspectors. I was referred to a response Mr. DeYoung made to a citizen's petition on October 6, 1983. In it he indicated that this would be determined by "the Commission budget process." (Docket No. 50-329, 50-330, 10CFR 2206, p.3)

With the recent decisions at Byron, Marble Hill, Zimmer and Limerick, it would seem that additional inspectors could be added without expanding the budget. There are only five inspectors working on 15 years of errors. Indeed, it would seem foolish for the NRC not to do this.

My request is simple. Will you please increase the number of NRC inspectors at Midland?

I look forward to your response.

Sincerely,

Leo R. Romo
Corresponding Secretary

*ORGANIZATIONS LISTED FOR IDENTIFICATION PURPOSES ONLY

8404050484

More NRC inspectors sought

Group wants staff shifted from nuke plants that floundered

BY KEITH NAUGHTON
News Staff Writer

A nuclear power watchdog group is pressuring the U.S. Nuclear Regulatory Commission to beef up its staff inspecting the Midland Nuclear Plant.

Government Accountability Project, a Washington-based citizens group, will send a letter to the commission Friday urging it to shift inspectors who had been assigned to nuclear projects that have floundered recently to the Midland team.

In the past two weeks, two Midwestern nuclear plants have halted construction — the Zimmer Nuclear Plant in Ohio and the Marble Hill Nuclear Plant in Indiana.

The three Ohio utilities that own Zimmer announced Saturday the plant will be converted to a coal-fired operation. Public Service of Indiana closed Marble Hill Jan. 16 because the utility ran out of money to complete it.

Billie Garde, an investigator for the citizens group, said Midland needs a larger NRC staff because of the "comprehensive" completion program the plant is undergoing.

"The construction completion program is the most stringent, most comprehensive and most difficult reinspection in the nuclear industry today," Ms. Garde said. "It would take a minimum of a dozen people to effectively monitor the (construction completion program). Less than that jeopardizes the integrity of the program."

A five-man NRC team monitors the Midland plant now, with two members of the team at the plant-site full-time.

The NRC has not determined what it will do with the inspectors from Zimmer and Marble Hill, NRC spokesman Russ Marabito said.

"Some of them may be shifted over to possibly the Midland (plant)," Marabito said.

Zimmer had a staff of eight full-time inspectors with three inspectors on call whenever needed, Marabito.

But Midland does not need as large a staff because it is not as troubled as Zimmer was, he said.

"The extent of the quality assurance problems (at Midland) are not as pervasive as they were at Zimmer," Marabito said.

Marble Hill is not similar in any way to Midland because it was not a troubled plant, Marabito claimed.

But the NRC stopped all safety-related construction at Marble Hill in 1979 because it found quality assurance and management problems at the plant.

If the Midland staff is not increased in size, it will slow the plant's construction program and eventually delay the completion of the project, Ms. Garde claimed.

"You could have a situation where people are sitting around twiddling their thumbs, waiting for an NRC inspector," she said.

The utility does not believe the size of the NRC team will have an impact on implementation of the construction program, Consumers spokesman James Storey said.

"The NRC is not scheduled, under the plan we drafted, to get that involved in the day-to-day process," Storey said.

The NRC ordered Consumers Power Co. to draft a formal completion plan for its plant after federal inspectors found several quality assurance problems at the plant in 1982.

Storey would not say if the utility is pleased with the performance of the present NRC staff or if additional staffing is necessary.

"That's really a question the NRC has to determine. . . It's their role and responsibility to determine the staff that is needed here," Storey said.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

OFFICE OF
INSPECTION AND
ENFORCEMENT

To R. WARNICK, R-III

FROM: M. PERANICH, IE

P/S REVIEW AND
COMMENT ON CONCURRENCE

/s/ PERANICH, IE

492-9661

29 FEB 84 11: 21

Two Argonne contract engineers ~~inspectors~~, formerly assigned to Zimmer, have been temporarily assigned to ~~and~~ provide inspection assistance at Midland. The NRC is in the process of approving a contract ~~for~~ with ~~the technical assistance~~ a national laboratory for assistance with the technical inspection program at Midland; approximately two man years of effort. ~~At~~ In the interim, a

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

Docket Nos. 50-329
50-330

Lone Tree Council
ATTN: Mr. Leo R. Romo
Corresponding Secretary
P. O. Box 421
Essexville, MI 48732

Dear Mr. Romo:

This refers to your letter of January 30, 1984, to Chairman Palladino requesting an increase in the number of NRC inspectors at the Consumers Power Company's (CPCo) Midland facility.

The NRC now has three resident inspectors located at the Midland site, an additional three individuals in the Region III office assigned full time to the Midland project, and additional inspection specialists from the Region III Division of Engineering who spend time onsite as needed. Currently allocated resources for Midland substantially exceed the 1.5 manyears that have been allocated for a normal nuclear plant construction site. Additionally, a senior NRC resident site supervisor has been selected and will report for Midland to the site in the near future.

In addition, the NRC required CPCo to have an independent third party overview the remedial soils work activities and an independent third party overview the Construction Completion Program (CCP) activities. On February 24, 1983, Stone and Webster (S&W) was approved by the NRC to overview the remedial soils activities. S&W currently has ~~seven~~ eight individuals onsite involved in this effort. On September 29, 1983, S&W was approved by the NRC to overview the CCP activities. S&W currently has ~~29~~ 32 individuals (completely different from those involved in the remedial soils overview) onsite involved in overviewing CCP activities. The S&W overview staffs can be increased as the work load increases.

The NRC inspection effort is further augmented by the NRC initiated and approved Independent Design and Construction Verification Program being performed by approximately 10 professionals from the TERA Corporation. This program is currently ongoing and is to provide additional assurance regarding the adequacy of design and construction for Midland.

Also for your information, this office issued a Confirmatory Order on January 12, 1984 to the licensee. The order basically requires a review to be performed by an independent consultant of the Midland corporate and site management structure and supervisory personnel. We expect the licensee to submit his plan on this matter in accordance with the order in the near future.

The recent 10 CFR 2.206 petition on the behalf of the Lone Tree Council by Billie Pirner Garde, Government Accountability Project, also addresses the issue of NRC inspection personnel at Midland, as well as other issues. A decision in this regard will be issued by me in a reasonable time.

In regard to your question on the utilization of resources which have been allocated to other facilities, this matter is currently under review by the NRC and your suggestions will be considered along with all other needs for increase inspection effort.

Sincerely,

R. C. DeYoung, Director
Office of Inspection and Enforcement

~~Ltr Encl~~
(2) file

22927
426

FROM:
Commissioner Gilinsky
(Roxanne Goldsmith)

TO:
Tom Rehm

ACTION CONTROL	DATES	CONTROL NO.
COMPL DEADLINE	3/9/84	14133
INTERIM REPLY		DATE OF DOCUMENT 2/23/84
FINAL REPLY		PREPARE FOR SIGNATURE OF: ☐ CHAIRMAN ☒ EXECUTIVE DIRECTOR OTHER:
FILE LOCATION		

DESCRIPTION ☐ LETTER ☒ MEMO ☐ REPORT ☐ OTHER

Requests EDO what plans NRC has for increased inspection at Midland in order to reply to ltr fm Leo R. Romo, Lone Tree Council

SPECIAL INSTRUCTIONS OR REMARKS

PRIORITY

ASSIGNED TO	DATE	INFORMATION ROUTING
DeYoung, IE	2/24/84	Dircks
		Roe
		Rehm
		Stello
		~~Keppler~~

PRI
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D/R
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NMSS
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File
43 tickler

NRC FORM 232
(6-80)

EXECUTIVE DIRECTOR FOR OPERATIONS
PRINCIPAL CORRESPONDENCE CONTROL

Consumers Power Company

J A Mooney
Executive Manager
Midland Project Office

General Offices: 1945 West Parnall Road, Jackson, MI 49201 • (517) 788-0774

February 27, 1984

Mr J J Harrison
Midland Project Section
U S Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND ENERGY CENTER GWO 7020
AUXILIARY BUILDING UNDERPINNING RESPONSE TO JANUARY 4-6, 1984
NRC AUDIT QUESTIONS
File: 0485.16.1 UFI: 42*05*22*04 Serial: CSC-7375
0460.2 12*16
00211(S)

REFERENCE: JAMooney letter to JJHarrison, serial CSC-7292, dated February 8, 1984.

Enclosed are Figure 8-8 and 8-9 for Attachment 8 to our February 8, 1984 letter which were inadvertantly omitted.

JAMooney

JAM/GMM/klw

Attachment

CC RFWarnick, NRC Region III
RBLandsman, NRC Region III
RJCook, NRC Senior Resident Inspector, Midland Site
DSHood, Project Manager Midland

MAR 1 1984

8403060426

CONSUMERS POWER COMPANY
Midland Units 1 and 2
Docket No 50-329/50-330

Letter Serial CSC-7375 Dated February 27, 1984

At the request of the Commission and pursuant to the Atomic Energy Act of 1954, and the Energy Reorganization Act of 1974, as amended and the Commission's Rules and Regulations thereunder, Consumers Power Company submits J A Mooney letter to J J Harrison serial CSC-7375, dated February 27, 1984.

CONSUMERS POWER COMPANY

By J A Mooney
J A Mooney
Executive Manager

Sworn and subscribed before me this 27th day of February, 1984.

Patricia A Puffer
Notary Public

My Commission Expires 3-4-86

PATRICIA A. PUFFER
Notary Public, Bay County, MI
My Commission Expires Mar. 4, 1986

BP0284-0002B-CN01

OM/OL SERVICE LIST

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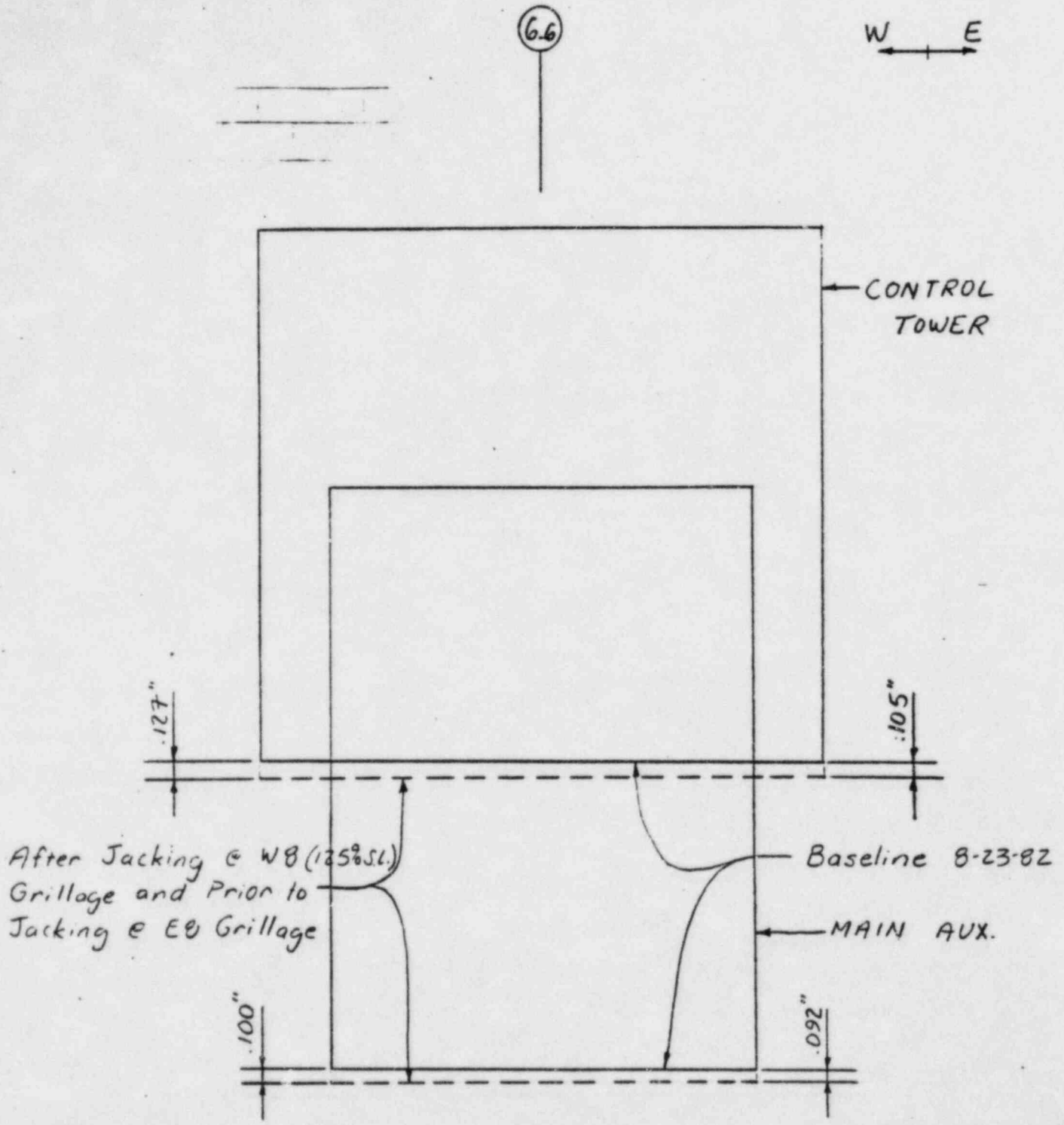
Midland, MI 48640

Ms Lynne Bernabei
Government Accountability Project
1901 Q Street, NW
Washington, DC 20009

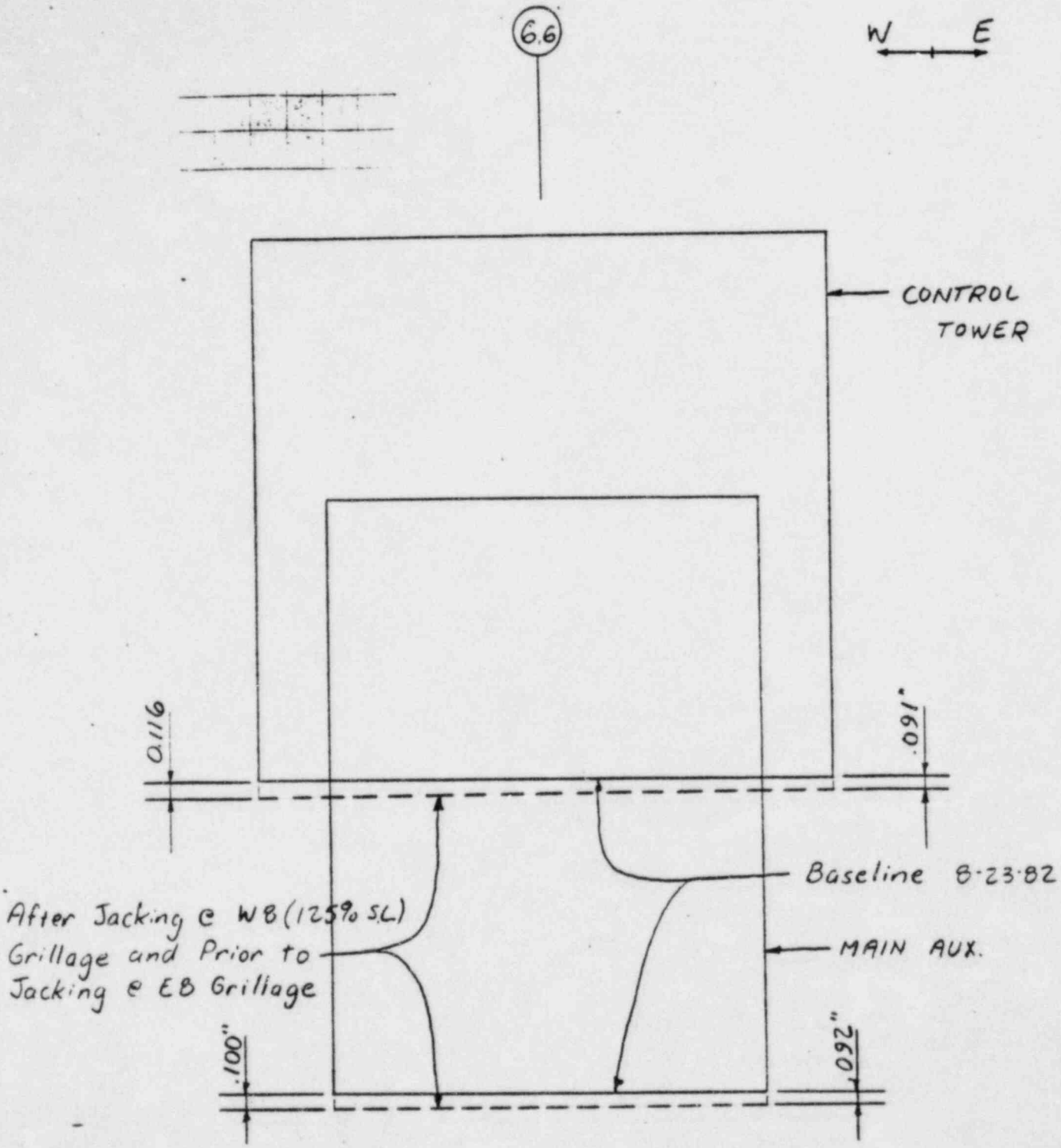
9/3/83
mi0583-0429a100

BCC JWCook, P-26-336B
DLQuamme, Midland (3)
TABuczwinski, Midland-207
JNLeech, P-24-507
DASommers, P-14-106 (For SER Related Issues)
DFLewis, Bechtel
DJVandeWalle, P-24-614B
MIMiller, IL&B, Chicago
FCWilliams, IL&B, Washington, DC
GALow, P-12-237A
NRC Correspondence File, P-24-517
UFI, P-24-517
BJWalraven, P-24-517
Hearings File, P-24-517



DEFORMED SHAPES AT COLUMN LINES G & ≈ K_c

FIGURE 8-8



DEFORMED SHAPES AT COLUMN LINES G & H

FIGURE 8-9

STATE OF MICHIGAN
DEPARTMENT OF ATTORNEY GENERAL

STANLEY D. STEINBORN
Chief Assistant Attorney General

FRANK J. KELLEY
ATTORNEY GENERAL

LANSING
48913

February 7, 1984

Mr. James G. Keppler
Regional Administrator
U.S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

Re: Midland Nuclear Power Plant

Dear Mr. Keppler:

I, and my division, the Special Litigation Division, represent Attorney General Frank J. Kelley as an intervenor in Consumers Power Company's pending electric rate case before the Michigan Public Service Commission, Case No. U-7830.

In that case, Consumers Power seeks ratemaking treatment for the Midland nuclear power plant. We have hired engineering consultants to analyze and prepare testimony on the Midland-related aspects of the case. Among the issues our consultants will address are when, if ever, the plant will be operable, the likely cost of the plant, the likely generating capacity of the plant, and the extent to which substantial portions of the plant's costs are attributable, per CPCo claims, to reasons beyond the control of Consumers Power Company management and its architect-engineer.

I would like to discuss Midland, and have our consultants discuss Midland, on a periodic basis, with your people in the Office of Special Cases.

8403190192

FEB 13 1984

Please let me know if telephone and/or personal discussions with that office present you with any difficulties. I can foresee none, particularly since the Attorney General has been a party to the Midland dockets 50-329 and 50-330 for a number of years. However, I thought a written request to you might be appropriate.

Very truly yours,

Alan J. Barak
Assistant Attorney General
Special Litigation Division

AJB/fg

Warnick

PRINCIPAL STAFF			
EA		DPRP	
D/RA		DE	
A/RA		DRMSP	
RC		DRMA	
PAO		SCS	✓
SGA		ML	
RIF		File	

orig+3

Consumers Power Company

INTERNAL CORRESPONDENCE

To DLQuamme, Midland Energy Center

FROM BHPeck, Midland Energy Center

DATE March 16, 1984

SUBJECT MIDLAND ENEPGY CENTER GWO 7020
MEETING NOTES - TURBINE ROLL
File: 0655 UFI: 99*08 Serial: CSC-7470

CC RAWells, MPQAD
Meeting Attendees

This memorandum documents the meeting held with the Nuclear Regulatory Commission (NRC) on March 5, 1984 in Glen Ellyn, Illinois to discuss approval of Construction Completion Program (CCP) Phase I activities to support the Unit 2 Turbine Roll milestone. The purpose of the meeting was to provide additional information to the NRC to supplement the February 15, 1984 letter from DLQuamme to JHarrision, Serial CSM-0734 which requested release of Phase I activities for the Turbine Roll milestone. Attachment 1 provides the meeting notes. Attachment 2 provides a list of attendees.

MAR 2 6 1984

MEETING NOTES FROM TURBINE ROLL MEETING WITH NRC

1. System OEAA - Need to do more than the 72'; i.e. part below water plus the part below the grating (which will also be inaccessible after flooding of the bay). (*RRice)

2. Q TOEs - Perform a complete reinspection on these - by MPQAD.

3. Must resolve any differences in drawings for TOEs before they go to GSO - i.e. make sure the hanger is of the right material before it is finished off.

4. Some work items will be added as a result of Project Engineering stress walkdowns.

5. System Interaction work by M. Jones: This will also add to the work scope.

6. Rigid hangers vs. snubbers This is a concern of Isa Yin. This is an item for stress walkdown also.

7. For turned over items/systems - No Status Assessment to be done (this was actually done at the time of turnover).

   a. Closed IRs - QVP

   b. Open IR - TOE and perform a complete reinspection of the work to a new PQCI.

8. Interface between CCP and turned over items

   Arno Buhrer's chart could be useful in showing this. Do we need to put the CCP process for turned over items on this chart? (*BHPeck)

9. For non-turned over systems:

   Closed IR - QVP only (Inspection Status Assessment)

   Open IR - QVP and Status Assessment

10. What is the status of Arno Buhrer's chart? (*BHPeck)

11. Discussion on going from Phase I to Phase II.

    Is everything in the module done? Need to be able to make a statement about completeness of work.

    System commodities span and cross the boundaries of the area.

12. Design changes on turned-over systems.

    NRC needs to approve - Bruce Burgess (*REMcCue)

    Two DCPs were approved last summer by Ross Landsman.

    For future DCPs, write J. Harrison a letter asked for approval to perform (*REMcCue)

13. Possibility in the future about turning things back to construction for completion of a large number of DCP type work. NRC would like to be informed about this. (*REMcCue)

14. Discussed the supports for the traveling screen and slice gates - these are Q.

    Were these installed and inspected as Q? (*BHPeck)

    Need to follow-up on this week. Jay Harrison would like some feedback on this 3/7 or 8.

15. Reviewed Open Items from REMcCue/Bruce Burgess inspection of TOEs conducted week of 2/27/84.

    Action Items here for REMcCue and BHPeck (*BHPeck/REMcCue)

16. Discussed "major and minor" TOEs.

    This category breakdown is not used. TOEs are not considered major items.

17. Work on Q TOEs was stopped by REMcCue on 2/24/84, pending outcome of discussions between REMcCue and Bruce Burgess.

18. Status of "Construction Ground Rules":

    Get a copy of the latest status of these and go over with Jay Harrison on 3/7/84. (*BHPeck)

19. Best guess of a cold hydro date.

    Depends on CCP activities.

    March or April of 1985, at best - REMcCue

    NRC currently plans to start looking at us about October, 1984.

20. Discussed draft letter.

    Jay Harrison would like to see the results/get a briefing on Phase I Management Review for the 2TR work. (*BHPeck)

    Send this letter out to NRC on 3/6/84 by telefax (*BHPeck)

21. Jay Harrison will try to bring us the approval for 2TR on 3/7/84.

22. Brief discussion of future CCP approvals/releases, and current status of CCP.

    A three month backlog for Status Assessment is desired by CPCo.

    This would be another 10-15 modules.

    Go over this on 3/7/84 with J. Harrison.

    Before we get the next release, NRC wants:

    + Lessons Learned
    + Changes Made to System as a result
    + Status of Items to date in Phase I

*Denotes follow-up item and responsible person.

BHPeck
3/16/84

LIST OF ATTENDEES

JJHarrison, USNRC

RLandsman, USNRC

BBurgess, USNRC

BHPeck, CPCo

DLQuamme, CPCo

JClark, CPCo-MPQAD

DTaggert, CPCo-MPQAD

RMcCue, CPCo

RRice, CPCo

JTMinor, Bechtel

Warnick

Consumers Power Company

Russell B. DeWitt
Vice President
Nuclear Operations

COPY

General Offices: 1945 Parnall Road, Jackson, Michigan 49201 • (517) 788-1217

March 23, 1984

PRINCIPAL STAFF			
RA		DPRP	
D/RA		DE	
A/RA		DRMSP	
RC		DRMA	
PAO		SCS	orig+3
SGA		NL	
ENF		File	

Harold R Denton, Director
Office of Nuclear Reactor Regulation
US Nuclear Regulatory Commission
Washington, DC 20555

DOCKETS 50-329, 50-330 - MIDLAND ENERGY CENTER -
REVISION TO NRC FACILITY STAFFING SURVEY
FILE: 0505-2, SERIAL 27162

REFERENCES: (1) LETTER FROM R J ERHARDT TO H R DENTON DATED 12/9/83, SERIAL 27136
(2) LETTER FROM M A MILLER (NRC) TO CONSUMERS POWER COMPANY DATED 12/30/83
(3) LETTER FROM J HANNON (NRC) TO ALL APPLICANTS FOR OPERATING LICENSES DATED MARCH 1, 1984

In Reference (1), Consumers Power Company provided the NRC with a response to the "Facility Staffing Survey", a questionnaire telecopied by the NRC on December 5, 1983. It describes our current Midland Staff that is expected to be in place upon receipt of our Operating License. In light of the requested response time and as noted in Reference (2), the letter was submitted as a best effort response.

On January 26, 1984, an NRC Staff meeting (summarized by Reference 3) was held to discuss operating shift experience levels for Near Term Operating Licenses (NTOL). Revised forms, "Staffing Questionnaire" and "Staff Experience By Individual," were provided during the meeting by the NRC to the attending representatives from the various utilities. As a result of that meeting 33 representatives from 21 utilities met at the Institute of Nuclear Power Operation in Atlanta to form a working group to establish an industry position on the level and type of operating shift experience required for the initial start-up of the NTOLs. The results of the industry evaluation were presented to the NRC Commissioners on February 24, 1984. A follow-up NRC staff presentation to the Commissioners on February 28, 1984 supported the industry position for NTOLs that will start-up within a 1 to 2 year period. However, NRC concern with the industry position was expressed in two areas: 1) the use of contracted shift advisors should eventually be eliminated and 2) hot participation experience of 1 year should be a goal rather than the 6 month on-shift with 6 week at greater than 20% power as proposed by the industry.

oc0384-0357a142

8404020130

This letter forwards a revision to our December 9, 1983 submittal. The format of the staff experience forms distributed by the NRC during the January 26, 1984 meeting are included as revised by the working group. The attached information incorporates specific shift operating experience data reflecting the industry position presented during the February 24, 1984 meeting. The revision also contains additional information not immediately available at the time of the first submittal. The following attachments are enclosed: Attachment 1 - Staffing Questionnaire; Attachment 2 - Corporate Nuclear Experience (Off-Site Management); Attachment 3 - On-Site Management; Attachment 4 - Operating Shift Experience.

Attachment 4, Operating Shift Experience specifies both current and projected (at receipt of our operating license) experience for the Shift Engineer (SRO), Shift Supervisor (SRO), Control Operator (RO) and Auxiliary Operator (RO) positions. Current experience indicates a considerable amount of hot license experience has been gained at the Shift Supervisor level from the Navy Nuclear Program. The projected experience is based upon utilization of our Palisades Plant for purposes of obtaining the industry recommended hot participation experience. Eight Midland assigned individuals are currently involved in the Palisades training program which provides for obtaining an SRO license and participating on shift for six months following receipt of the license. It is planned that another eight individuals will be commencing the program in the fall, 1984. In order to obtain Midland specific training and license prior to start-up necessitates that these individuals return to Midland after obtaining 6 months shift operating experience at the Palisades Plant. This program is consistent with the industry proposal. Pending NRC acceptance of the industry proposal we, therefore, do not plan to use contracted shift advisors.

Our proposed six shift rotation will require a minimum of twelve SRO's and twelve RO's. It is presently planned to license forty-two personnel (RO's and SRO's) to provide staffing flexibility and operating reserves. The additional personnel included in the attachments should provide adequate reserve to accommodate the normal losses from attrition and promotion prior to receipt of the operating license.

R B DeWitt (Signed)

R B DeWitt
Vice President, Nuclear Operations

CC JGKeppler, Regional Administrator
TMNovak, USNRC, Assistant Director for Licensing
DSHood, USNRC, Licensing Branch No 4
RJCook, Midland Resident Inspector
HThompson, USNRC, Director, Division of Human Factor Safety
DFSchnell, Union Electric Company

Attachments

oc0384-0357a142

CONSUMERS POWER COMPANY
Midland Energy Center
Dockets 50-329, 50-330

Letter Serial 27162 Dated March 23, 1984

At the request of the Commission and pursuant to the Atomic Energy Act of 1954, and the Energy Reorganization Act of 1974, as amended, and the Commission's Rules and Regulations thereunder, Consumers Power Company submits a revision to the Midland Energy Center response to the NRC Facility Staffing Survey.

CONSUMERS POWER COMPANY

By R B DeWitt (Signed)
R B DeWitt, Vice President
Nuclear Operations

Sworn and subscribed to before me this 23th day of March, 1984.

Sherry L Durfey (Signed) (SEAL)
Sherry L Durfey, Notary Public
Jackson County, Michigan
My commission expires November 5, 1986.

nu0384-0357d142

STAFFING QUESTIONNAIRE

Plant Name: Midland Unit 2

Total number of Shift Supervisors (the person in charge of operating shift) presently on operating shift work N/A

Proposed total number of Shift Supervisors on operating shift work at time of fuel load 6

Total number of Shift Supervisors on plant staff other than normal operating shift (e.g., substitutes) N/A

Proposed total number of Shift Supervisors on plant staff other than normal operating shift at time of fuel load 2

Total number of licensed SROs presently on operating shift work (do not include those listed above as SS) N/A

Proposed total number of SROs on operating shift work at time of fuel load (do not include those listed above as SS) 6

Total number of licensed SROs presently on plant staff other than normal operating shift work (e.g., training instructors, engineers, substitutes) N/A

Proposed total number of licensed SROs on plant staff other than normal operating shift work 6

Total number of licensed ROs presently on operating shift work N/A

Proposed total number of ROs on operating shift work at time of fuel load 12

Total number of Shift Technical Advisors (or others who perform STA function) on operating shift work N/A

Type of shift rotation schedule for STA (24 hour, 8 hours, etc.) 8 hours/shift; 6 shift rotation

Total number of STAs not on operating shift work (e.g., substitutes) 2

Our STA will be the Shift Engineer and will be in charge of the operating shift. There will be six Shift Engineers. This number is included in the Shift Supervisor on shift category.

ATTACHMENTS

Consumers Power Company
Midland Energy Center
Dockets 50-329, 50-330

Attachment 1
STAFFING QUESTIONNAIRE

Attachment 2
CORPORATE NUCLEAR EXPERIENCE

Attachment 3
ON-SITE MANAGEMENT

and

Attachment 4
OPERATING SHIFT EXPERIENCE

March 23, 1984

22 pages

Attachment 2

CORPORATE NUCLEAR EXPERIENCE
(ie, "OFF-SITE" MANAGEMENT)

Position	Name	Nuclear Navy (years)	Operator Lic (if ever held) RO/SRO/None	(Indicate Whether BWR or PWR) (On-Site) Years at Operating Nuclear Stations	(Off-Site) Years at Other Nuc. Support/ Management Position	Degrees Level (A/B/K/D)
Executive Vice President	JWReynolds	-	-	-	3	BSPS BSIE
Vice President Nuclear Operations (FSAR p13A.1-1)	RBDeWitt		RO/SRO (BRP)	10 (PWR & BWR)	13	BSME
Director of Nuclear Plant Support (FSAR p13A.1-23)	DRHughes	-	SRO (BRP & PAL)	9 (PWR & BWR)	9	BSEE
Director of Reactor Engineering (FSAR p13A.1-19)	WJBeckius		-	5 (PWR & BWR)	13	BS/MS
Exec Director of Nuclear Activities (FSAR p13A.1-7)	GBSlade	-	-	5 (PWR)	7 (PWR)	BSME/MSNE
Exec Director Planning & Administration (FSAR p13A.1-3)	TWElward	-	SRO (PAL)	5 (PWR & BWR)	6	BSChem/MSNE
Director Radiological Services (FSAR p13A.1-11)	RWSinderman	-	-	3 (1 PWR 2 BWR)	15	BSSE/MSEHS/ MPHHP

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CORPORATE NUCLEAR EXPERIENCE
(ie, "OFF-SITE" MANAGEMENT)

Position	Name	Nuclear Navy (years)	Operator Lic (if ever held) RO/SRO/None	(Indicate Whether BWR or PWR) (On-Site) Years at Operating Nuclear Stations	(Off-Site) Years at Other Nuc. Support/ Management Position	Degrees Level (A/B/K/D)
Executive Engr Nuclear Activities Plant Department	DABixel	-	SRO	7 (PWR & BWR)	16	BS
Director Nuclear Licensing	DJVandewalle	-	-	-	10	BSNE/ MSNE
Director Quality Assurance Nuclear Operations (FSAR p13A.1-40)	HMEsch	-	-	-	16	BSEE/ MBA
Director Plant Projects (FSAR p13A.1-8)	JGLewis	-	RO/SRO	5-BWR 12-PWR	4	BSEE
Director Nuclear Operations Training Department	WLBeckman	5	-	1-PWR	7-PWR	BSChem
Director Nuclear Planning	DWJoos	-	-	2 (BWR & PWR)	5	BS/MS

ON-SITE MANAGEMENT

Attachment 3

Fill in Table (Use Appropriate Titles)

	Operations Supt. (Operations Supervisor)	Plant Supt. (Assistant Plant Mgr)	Plant Manager	Technical Supt.	Maintenance Supt. (Maintenance Manager)	QA Supt. (QA/QC Manager)
To have license at time of OL	Yes	Yes**	No	No	No	No
Previously Licensed						
RO/SRO	SRO	RO	No	No	No	No
Type Plant	PWR-CE	Test Reactor	-	-	-	-
Number Years	2	3	-	-	-	-
Number Years "Hot" Exp	0	3	-	-	-	-
Degreed	Yes*	Yes	Yes*	Yes	Yes*	Yes
Type (Discipline(s))	MECH ENG TECH ELEC ENG TECH	CHEMISTRY	ELEC ENG, BUSINESS	ELEC ENG, BUSINESS	MECH ENG	METALURGICAL ENG
Level (A/B/M/D)	BSMET/ MSEET	BSChem	BSEE/ MBA	BSEE/ MBA	BSEME/ MSEME	BSMM

* Registered Professional Engineer - State of Michigan
** SRO desired but not required

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ON-SITE MANAGEMENT

Fill in Table (Use Appropriate Titles)

	Shift Engineer (STA)	Shift Engineer (STA)	Shift Engineer (STA)	Shift Engineer (STA)	Shift Engineer (STA)	Shift Engineer (STA)
To have license at time of OL	Yes	Yes	Yes	Yes	(Vacant)	(Vacant)
Previouly Licensed						
RO/SRO	No	No	No	No		
Type Plant	-	-	-	-		
Number Years	-	-	-	-		
Number Years "Hot" Exp	-	-	-	-		
Degreed	Yes	Yes	Yes	Yes		
Type (Discipline(s))	NUCLEAR ENGINEER	NUCLEAR ENGINEER	MECHANICAL ENGINEER	METALLURIGAL ENGINEER		
Level (A/B/M/D)	BSNE	BSNE	BSME	BSMET		

STA - Staff Technical Advisor

List of Abbreviations

BS - Bachelor of Science
BSChem - Bachelor of Science in Chemistry
BSEE - Bachelor of Science in Electrical Engineering
BSEME - Bachelor of Science in Engineering, Mechanical Engineering
BSIE - Bachelor of Science in Industrial Engineering
BSME - Bachelor of Science in Mechanical Engineering
BSMET - Bachelor of Science in Metallurgical Engineering
BSNE - Bachelor of Science in Nuclear Engineering
BSSE - Bachelor of Science in Science Engineering
MBA - Master of Business Administration
MPHHP - Master of Public Health in Health Physics
MS - Master of Science
MSEHS - Master of Science in Environmental Health Sciences
MSEME - Master of Science in Engineering, Mechanical Engineering
MSNE - Master of Science in Nuclear Engineering
BRP - Big Rock Point (CPCo BWR Nuclear Plant)
PAL - Palisades (CPCo PWR Nuclear Plant)

Attachment 4

DATE March 21, 1984
PLANT NAME Midland Energy Center
UTILITY Consumers Power Company
C L DATE 1986

OPERATING SHIFT EXPERIENCE

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

JOB TITLE (NOTE 2) Shift Engineers (SRO) Current
ENTER DATA: MONTHS/MONTHS X WEIGHTING FACTOR

TYPE OF EXPERIENCE	WEIGHTING FACTOR	MAXIMUM CREDIT	1	2	3	4	5	6	7	8
1. Same Type Commercial SRO	1.00	No Limit	0	0	0	0	0	0	0	0
2. Other Commercial SRO	.75	No Limit	0	0	0	0	0	0	0	0
3. Same Type Commercial RO	1.00	No Limit	0	0	0	0	0	0	0	0
4. Other Commercial RO	.75	No Limit	0	0	0	0	0	0	0	0
5. Navy (Military) Nuclear		36 Months								
(RO, EWS, EOOW, PPWS)	.50		33	30	21	0	0	0	0	0
(Other)	.25		0	0	0	0	0	0	0	15
6. Simulator		12 Months								
(Reference Plant)	5.00	(12 Months)	0	0	0	5	0	0	0	0
(Similar)	3.00	(9 Months)	3	3	3	0	3	1.12	3	3
7. Nuclear Plant Experience on Shift (Own Plant)		24 Months								
(Less Than 1½ Years Prior to FL)	.75	(12 Months)	0	0	0	0	0	0	0	0
(More Than 1½ Years Prior to FL)	.50	(12 Months)	0	12	0	0	6	6	6	0
8. Licensed Classroom Training and Exam (Own Plant)	.50	9 Months	4.56	5.25	3.7	3.95	4.64	4.28	4.63	4.28
9. Participation at Operating Plant	.75	12 Months	0	4.5	4.5	0	0	12	12	0
10. Other Nuclear Plant Experience	.25	12 Months	0	0	9	0	12	6	12	12
11. Conducting License Training	.25	9 Months	0	0	0	0	0	0	0	0
12. Degree (Engineering, Applied Science or Equivalent)		12 Months								
(Bachelors Degree)		(12 Months)	12	12	12	12	12	12	12	12
(Associates Degree)		(6 Months)	0	0	0	0	0	0	0	0
TOTAL NUCLEAR PLANT EXPERIENCE			52.56	66.75	53.4	20.95	37.64	41.4	49.63	46.28

DATE March 21, 1984
PLANT NAME Midland Energy Center
UTILITY Consumers Power Company
O L DATE 1986

OPERATING SHIFT EXPERIENCE

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

JOB TITLE (NOTE 2) Shift Engineers (SRO) Projected
ENTER DATA: MONTHS/MONTHS X WEIGHTING FACTOR

TYPE OF EXPERIENCE	WEIGHTING FACTOR	MAXIMUM CREDIT	1	2	3	4	5	6	7	8
1. Same Type Commercial SRO	1.00	No Limit	6	6	6	6	6	6	6	6
2. Other Commercial SRO	.75	No Limit	0	0	0	0	0	0	0	0
3. Same Type Commercial RO	1.00	No Limit	0	0	0	0	0	0	0	0
4. Other Commercial RO	.75	No Limit	0	0	0	0	0	0	0	0
5. Navy (Military) Nuclear		36 Months								
(RO, EWS, EOOW, PPWS)	.50		33	30	21	0	0	0	0	0
(Other)	.25		0	0	0	0	0	0	0	15
6. Simulator		12 Months								
(Reference Plant)	5.00	(12 Months)	0	0	0	5	0	0	0	0
(Similar)	3.00	(9 Months)	3	3	3	0	3	1.12	3	3
7. Nuclear Plant Experience on Shift (Own Plant)		24 Months								
(Less Than 1½ Years Prior to FL)	.75	(12 Months)	12	12	12	12	12	12	12	12
(More Than 1½ Years Prior to FL)	.50	(12 Months)	0	12	C	0	6	6	6	0
8. Licensed Classroom Training and Exam (Own Plant)	.50	9 Months	8.96	9	8.3	8.35	9.04	8.68	9.03	8.68
9. Participation at Operating Plant	.75	12 Months	10	12	12	10	10	12	12	10
10. Other Nuclear Plant Experience	.25	12 Months	0	0	9	0	12	6	12	12
11. Conducting License Training	.25	9 Months	0	0	0	0	0	0	0	0
12. Degree (Engineering, Applied Science or Equivalent)		12 Months								
(Bachelors Degree)		(12 Months)	12	12	12	12	12	12	12	12
(Associates Degree)		(6 Months)	0	0	0	0	0	0	0	0
TOTAL NUCLEAR PLANT EXPERIENCE			84.96	96	83.3	53.35	70.04	63.8	72.03	78.68
HOT PARTICIPATION EXPERIENCE										
Time > 20% PWR/BWR (WKS)			24	24	24	24	24	24	24	24
Startup & Shutdown (Yes/No)			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Months on Shift			10	10	10	10	10	10	10	10

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 SROs, 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.

X c. Do not plan to use shift advisors unless some unforeseen circumstance arises.

DATE March 21, 1984
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O L DATE 1986

OPERATING SHIFT EXPERIENCE

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

JOB TITLE (NOTE 2) Shift Supervisor (SRO) Current
ENTER DATA: MONTHS/MONTHS X WEIGHTING FACTOR

TYPE OF EXPERIENCE	WEIGHTING FACTOR	MAXIMUM CREDIT	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Same Type Commercial SRO	1.00	No Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2. Other Commercial SRO	.75	No Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Same Type Commercial RO	1.00	No Limit	0	0	0	0	0	9	10	0	0	0	0	0	0	0
4. Other Commercial RO	.75	No Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Navy (Military) Nuclear		36 Months														
(RO, EWS, EOOW, PPWS)	.50		0	4.5	6	2.5	32	6	18	8	28.5	36	36	7.5	18	36
(Other)	.25		12	3	12	12	4	9	0	9	7.5	0	0	12.5	0	0
6. Simulator		12 Months														
(Reference Plant)	5.00	(12 Months)	0	5	0	0	0	0	0	5	0	0	0	5	0	0
(Similar)	3.00	(9 Months)	3	0	3	3	3	3	3	0	3	3	3	0	3	3
7. Nuclear Plant Experience on Shift (Own Plant)		24 Months														
(Less Than 1½ Years Prior to FL)	.75	(12 Months)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(More Than 1½ Years Prior to FL)	.50	(12 Months)	12	4	4.5	5	12	3.5	12	4.5	4	12	3	3.5	12	3.5
8. Licensed Classroom Training and Exam (Own Plant)	.50	9 Months	4.84	3.95	4.2	4.35	4.45	4.35	4.55	4.15	4.8	4.89	4.96	3.95	5.46	4.45
9. Participation at Operating Plant	.75	12 Months	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10. Other Nuclear Plant Experience	.25	12 Months	0	1	0	0	0	0	6	5.5	3	12	4.25	0	0	0
11. Conducting License Training	.25	9 Months	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12. Degree (Engineering, Applied Science or Equivalent)		12 Months														
(Bachelors Degree)		(12 Months)	2	1	0	0	0	1	0	1	0	0	3	0	0	0
(Associates Degree)		(6 Months)	0	0	0	0	0	0	0	0	0	0	0	0	0	6
TOTAL NUCLEAR PLANT EXPERIENCE			33.84	22.45	29.7	26.85	55.45	26.85	53.55	37.15	50.8	67.89	54.21	32.45	38.46	52.95

DATE March 21, 1984
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O L DATE 1986

OPERATING SHIFT EXPERIENCE

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

JOB TITLE (NOTE 2) Shift Supervisor (SRO) Current
ENTER DATA: MONTHS/MONTHS X WEIGHTING FACTOR

TYPE OF EXPERIENCE	WEIGHTING FACTOR	MAXIMUM CREDIT	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Same Type Commercial SRO	1.00	No Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2. Other Commercial SRO	.75	No Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Same Type Commercial RO	1.00	No Limit	0	0	0	0	0	0	10	0	0	0	0	0	0	0
4. Other Commercial RO	.75	No Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Navy (Military) Nuclear		36 Months														
(RO, EWS, EOOW, PPWC)	.50		0	4.5	6	2.5	32	6	18	8	28.5	36	36	7.5	18	36
(Other)	.25		12	3	12	12	4	9	0	9	7.5	0	0	12.5	0	0
6. Simulator		12 Months														
(Reference Plant)	5.00	(12 Months)	0	5	0	0	0	0	0	5	0	0	0	5	0	0
(Similar)	3.00	(9 Months)	3	0	3	3	3	3	3	0	3	3	3	0	3	3
7. Nuclear Plant Experience on Shift (Own Plant)		24 Months														
(Less Than 1½ Years Prior to FL)	.75	(12 Months)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(More Than 1½ Years Prior to FL)	.50	(12 Months)	12	4	4.5	5	12	3.5	12	4.5	4	12	3	3.5	12	3.5
8. Licensed Classroom Training and Exam (Own Plant)	.50	9 Months	4.84	3.95	4.2	4.35	4.45	4.35	4.55	4.15	4.8	4.89	4.96	3.95	5.46	4.45
9. Participation at Operating Plant	.75	12 Months	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10. Other Nuclear Plant Experience	.25	12 Months	0	1	0	0	0	0	6	5.5	3	12	4.25	0	0	0
11. Conducting License Training	.75	9 Months	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12. Degree (Engineering, Applied Science or Equivalent)		12 Months														
(Bachelors Degree)		(12 Months)	2	1	0	0	0	1	0	1	0	0	3	0	0	0
(Associates Degree)		(6 Months)	0	0	0	0	0	0	0	0	0	0	0	0	0	6
TOTAL NUCLEAR PLANT EXPERIENCE			33.84	22.45	29.7	26.85	55.45	26.85	53.55	37.15	50.8	67.89	54.21	32.45	38.46	52.95

DATE March 21, 1984
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O L DATE 1986

OPERATING SHIFT EXPERIENCE

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

JOB TITLE (NOTE 2) Shift Supervisor (SRO) Current
ENTER DATA: MONTHS/MONTHS X WEIGHTING FACTOR

TYPE OF EXPERIENCE	WEIGHTING FACTOR	MAXIMUM CREDIT	15	16	17	18	19	20	21	22	23	24
1. Same Type Commercial SRO	1.00	No Limit	0	0	0	0	0	0	0	0	0	0
2. Other Commercial SRO	.75	No Limit	0	0	0	0	0	0	0	0	0	0
3. Same Type Commercial RO	1.00	No Limit	13	0	0	0	0	0	0	0	0	0
4. Other Commercial RO	.75	No Limit	0	0	0	0	0	0	0	0	0	0
5. Navy (Military) Nuclear		36 Months										
(RO, EWS, EOOW, PPWS)	.50		0	30	24	18	30	20	36	24	36	27
(Other)	.25		8.75	0	0	24	6	16	0	0	0	0
6. Simulator		12 Months										
(Reference Plant)	5.00	(12 Months)	0	0	0	0	0	0	0	0	0	0
(Similar)	3.00	(9 Months)	3	3	4.14	3	3	3	3	4.14	3	3
7. Nuclear Plant Experience on Shift (Own Plant)		24 Months										
(Less Than 1½ Years Prior to FL)	.75	(12 Months)	0	0	0	0	0	0	0	0	0	0
(More Than 1½ Years Prior to FL)	.50	(12 Months)	12	12	12	12	7	12	12	12	12	6
8. Licensed Classroom Training and Exam (Own Plant)	.50	9 Months	4.98	4.49	5.41	4.74	4.74	4.46	4.84	5.16	4.46	4.15
9. Participation at Operating Plant	.75	12 Months	22.5	0	0	0	1.5	0	0	5.25	0	0
10. Other Nuclear Plant Experience	.25	12 Months	15	0	0	0	0	3	0	0	0	0
11. Conducting License Training	.25	9 Months	0	0	0	0	0	0	0	0	0	0
12. Degree (Engineering, Applied Science or Equivalent)		12 Months										
(Bachelors Degree)		(12 Months)	0	0	2	0	0	0	0	0	0	0
(Associates Degree)		(6 Months)	0	0	0	0	0	0	0	0	0	0
TOTAL NUCLEAR PLANT EXPERIENCE			79.23	49.49	47.55	61.74	52.74	58.46	55.84	50.55	55.46	40.15

DATE March 21, 1984
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OPERATING SHIFT EXPERIENCE

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

JOB TITLE (NOTE 2) Shift Supervisor (SRO) Projected
ENTER DATA: MONTHS/MONTHS X WEIGHTING FACTOR

TYPE OF EXPERIENCE	WEIGHTING FACTOR	MAXIMUM CREDIT	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Same Type Commercial SRO	1.00	No Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2. Other Commercial SRO	.75	No Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Same Type Commercial RO	1.00	No Limit	0	0	0	0	0	0	10	0	0	0	0	0	0	0
4. Other Commercial RO	.75	No Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Navy (Military) Nuclear		36 Months														
(RO, EWS, EOOW, PPWS)	.50		0	4.5	6	2.5	32	6	18	8	28.5	36	36	7.5	18	36
(Other)	.25		12	3	12	12	4	9	0	9	7.5	0	0	12.5	0	0
6. Simulator		12 Months														
(Reference Plant)	5.00	(12 Months)	0	5	0	0	0	0	0	5	0	0	0	5	0	0
(Similar)	3.00	(9 Months)	3	0	3	3	3	3	3	0	3	3	3	0	3	3
7. Nuclear Plant Experience on Shift (Own Plant)		24 Months														
(Less Than 1½ Years Prior to FL)	.75	(12 Months)	12	12	12	12	12	12	12	12	12	12	12	12	12	12
(More Than 1½ Years Prior to FL)	.50	(12 Months)	12	4	4.5	5	12	3.5	12	4.5	4	12	3	3.5	12	3.5
8. Licensed Classroom Training and Exam (Own Plant)	.50	9 Months	9	8.35	8.6	8.75	8.85	8.75	8.95	8.55	9	9	9	8.35	9	8.85
9. Participation at Operating Plant	.75	12 Months	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10. Other Nuclear Plant Experience	.25	12 Months	0	1	0	0	0	0	6	5.5	3	12	4.25	0	0	0
11. Conducting Licensee Training	.25	9 Months	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12. Degree (Engineering, Applied Science or Equivalent)		12 Months														
(Bachelors Degree)		(12 Months)	2	1	0	0	0	1	0	1	0	0	3	0	0	0
(Associates Degree)		(6 Months)	0	0	0	0	0	0	0	0	0	0	0	0	0	6
TOTAL NUCLEAR PLANT EXPERIENCE			50	38.85	46.1	43.25	71.85	43.25	69.95	53.55	67	84	70.25	48.85	54	69.35

DATE March 21, 1984
PLANT NAME Midland Energy Center
UTILITY Consumers Power Company
O L DATE 1986

OPERATING SHIFT EXPERIENCE

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

JOB TITLE (NOTE 2) Shift Supervisor (SRO) Projected
ENTER DATA: MONTHS/MONTHS X WEIGHTING FACTOR

TYPE OF EXPERIENCE	WEIGHTING FACTOR	MAXIMUM CREDIT	15	16	17	18	19	20	21	22	23	24
1. Same Type Commercial SRO	1.00	No Limit	6	6	6	6	6	6	6	6	6	6
2. Other Commercial SRO	.75	No Limit	0	0	0	0	0	0	0	0	0	0
3. Same Type Commercial RO	1.00	No Limit	13	0	0	0	0	0	0	0	0	0
4. Other Commercial RO	.75	No Limit	0	0	0	0	0	0	0	0	0	0
5. Navy (Military) Nuclear		36 Months										
(RO, EWS, EOOW, PPWS)	.50		0	30	24	18	30	20	36	24	36	27
(Other)	.25		8.75	0	0	24	6	16	0	0	0	0
6. Simulator		12 Months										
(Reference Plant)	5.00	(12 Months)	0	0	0	0	0	0	0	0	0	0
(Similar)	3.00	(9 Months)	3	3	4.14	3	3	3	3	4.14	3	3
7. Nuclear Plant Experience on Shift (Own Plant)		24 Months										
(Less Than 1½ Years Prior to FL)	.75	(12 Months)	12	12	12	12	12	12	12	12	12	12
(More Than 1½ Years Prior to FL)	.50	(12 Months)	12	12	12	12	7	12	12	12	12	6
8. Licensed Classroom Training and Exam (Own Plant)	.50	9 Months	9	8.89	9	9	9	8.86	9	9	8.86	8.55
9. Participation at Operating Plant	.75	12 Months	12	10	10	10	11.5	10	10	12	10	10
10. Other Nuclear Plant Experience	.25	12 Months	15	0	0	0	0	3	0	0	0	0
11. Conducting License Training	.25	9 Months	0	0	0	0	0	0	0	0	0	0
12. Degree (Engineering, Applied Science or Equivalent)		12 Months										
(Bachelors Degree)		(12 Months)	0	0	2	0	0	0	0	0	0	0
(Associates Degree)		(6 Months)	0	0	0	0	0	0	0	0	0	0
TOTAL NUCLEAR PLANT EXPERIENCE			90.75	81.89	79.14	94	84.5	90.86	88	79.14	87.86	72.55
HOT PARTICIPATION EXPERIENCE												
Time > 20% PWR/BWR (WKS)			24	24	24	24	24	24	24	24	24	24
Startup & Shutdown (Yes/No)			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Months on Shift			10	10	10	10	10	10	10	10	10	10

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OPERATING SHIFT EXPERIENCE

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

JOB TITLE (NOTE 2) Control Operator (RO) Current

ENTER DATA: MONTHS/MONTHS X WEIGHTING FACTOR

TYPE OF EXPERIENCE	WEIGHTING FACTOR	MAXIMUM CREDIT	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Same Type Commercial SRO	1.00	No Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2. Other Commercial SRO	.75	No Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Same Type Commercial RO	1.00	No Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4. Other Commercial RO	.75	No Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Navy (Military) Nuclear		36 Months														
(RO, EWS, EOOM, PPWS)	.50		0	0	0	0	0	0	0	15	0	0	0	0	0	24
(Other)	.25		12	0	12	10	0	0	12	5.25	9	12	0	12	0	6
6. Simulator		12 Months														
(Reference Plant)	5.00	(12 Months)	0	0	0	0	0	0	0	0	0	0	0	0	5	0
(Similar)	3.00	(9 Months)	3	3	3	3	3	3	3	3	3	3	3	3	0	3
7. Nuclear Plant Experience on Shift (Own Plant)		24 Months														
(Less Than 1½ Years Prior to FL)	.75	(12 Months)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(More Than 1½ Years Prior to FL)	.50	(12 Months)	12	12	12	12	12	12	12	12	12	12	12	12	12	12
8. Licensed Classroom Training and Exam (Own Plant)	.50	9 Months	5.08	5.03	4.47	4.4	5.15	4.55	4.69	5.55	4.86	4.56	4.93	5.18	3.65	4.94
9. Participation at Operating Plant	.75	12 Months	9.75	0	0	0	0	0	0	0	12	0	0	0	0	0
10. Other Nuclear Plant Experience	.25	12 Months	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11. Conducting License Training	.25	9 Months	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12. Degree (Engineering, Applied Science or Equivalent)		12 Months														
(Bachelors Degree)		(12 Months)	0	0	0	0	0	0	0	0	0	0	1	0	0	0
(Associates Degree)		(6 Months)	6	0	0	0	0	0	0	6	0	0	0	0	0	0
TOTAL NUCLEAR PLANT EXPERIENCE			47.83	20.03	31.47	29.4	20.15	19.55	31.69	46.8	40.86	31.56	20.93	32.18	20.65	49.94

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OPERATING SHIFT EXPERIENCE

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

JOB TITLE (NOTE 2) Control Operator (RO) Current
ENTER DATA: MONTHS/MONTHS X WEIGHTING FACTOR

TYPE OF EXPERIENCE	WEIGHTING FACTOR	MAXIMUM CREDIT	15	16	17	18	19	20
1. Same Type Commercial SRO	1.00	No Limit	0	0	0	0	0	0
2. Other Commercial SRO	.75	No Limit	0	0	0	0	0	0
3. Same Type Commercial RO	1.00	No Limit	0	0	0	0	0	0
4. Other Commercial RO	.75	No Limit	0	0	0	0	0	0
5. Navy (Military) Nuclear		36 Months						
(RO, EWS, EOOW, PPWS)	.50		0	19	0	18	18	24
(Other)	.25		4.5	0	9	0	0	0
6. Simulator		12 Months						
(Reference Plant)	5.00	(12 Months)	0	0	0	0	0	0
(Similar)	3.00	(9 Months)	3	3	3	3	3	4.14
7. Nuclear Plant Experience on Shift (Own Plant)		24 Months						
(Less Than 1½ Years Prior to FL)	.75	(12 Months)	0	0	0	0	0	0
(More Than 1½ Years Prior to FL)	.50	(12 Months)	12	12	12	12	12	12
8. Licensed Classroom Training and Exam (Own Plant)	.50	9 Months	4.79	4.79	4.56	4.56	5.41	5
9. Participation at Operating Plant	.75	12 Months	0	0	0	0	0	9
10. Other Nuclear Plant Experience	.25	12 Months	0	0	0	0	0	0
11. Conducting License Training	.25	9 Months	0	0	0	0	0	0
12. Degree (Engineering, Applied Science or Equivalent)		12 Months						
(Bachelors Degree)		(12 Months)	0	0	2	0	0	0
(Associates Degree)		(6 Months)	0	0	0	0	0	0
TOTAL NUCLEAR PLANT EXPERIENCE			24.29	38.79	30.56	37.56	38.41	54.14

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OPERATING SHIFT EXPERIENCE

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

JOB TITLE (NOTE 2) Control Operator (RO) Projected
ENTER DATA: MONTHS/MONTHS X WEIGHTING FACTOR

TYPE OF EXPERIENCE	WEIGHTING FACTOR	MAXIMUM CREDIT	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Same Type Commercial SRO	1.00	No Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2. Other Commercial SRO	.75	No Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Same Type Commercial RO	1.00	No Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4. Other Commercial RO	.75	No Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Navy (Military) Nuclear		36 Months														
(RO, EWS, EOOW, PPWS)	.50		0	0	0	0	0	0	0	15	0	0	0	0	0	24
(Other)	.25		12	0	12	10	0	0	12	5.25	9	12	0	12	0	6
6. Simulator		12 Months														
(Reference Plant)	5.00	(12 Months)	0	0	0	0	0	0	0	0	0	0	0	0	5	0
(Similar)	3.00	(9 Months)	3	3	3	3	3	3	3	3	3	3	3	3	0	3
7. Nuclear Plant Experience on Shift (Own Plant)		24 Months														
(Less Than 1½ Years Prior to FL)	.75	(12 Months)	12	12	12	12	12	12	12	12	12	12	12	12	12	12
(More Than 1½ Years Prior to FL)	.50	(12 Months)	12	12	12	12	12	12	12	12	12	12	12	12	12	12
8. Licensed Classroom Training and Exam (Own Plant)	.50	9 Months	9	9	8.87	8.8	9	8.95	9	9	9	9	9	9	8.05	9
9. Participation at Operating Plant	.75	12 Months	9.75	0	0	0	0	0	0	0	12	6	0	0	0	0
10. Other Nuclear Plant Experience	.25	12 Months	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11. Conducting License Training	.25	9 Months	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12. Degree (Engineering, Applied Science or Equivalent)		12 Months														
(Bachelors Degree)		(12 Months)	0	0	0	0	0	0	0	0	0	0	1	0	0	0
(Associates Degree)		(6 Months)	6	0	0	0	0	0	0	6	0	0	0	0	0	0
TOTAL NUCLEAR PLANT EXPERIENCE			63.75	36	47.87	45.8	36	35.95	48	62.25	57	48	37	43	37.05	66

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OPERATING SHIFT EXPERIENCE

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

JOB TITLE (NOTE 2) Control Operator (RO) Projected
ENTER DATA: MONTHS/MONTHS X WEIGHTING FACTOR

TYPE OF EXPERIENCE	WEIGHTING FACTOR	MAXIMUM CREDIT	15	16	17	18	19	20
1. Same Type Commercial SRO	1.00	No Limit	0	0	0	0	0	0
2. Other Commercial SRO	.75	No Limit	0	0	0	0	0	0
3. Same Type Commercial RO	1.00	No Limit	0	0	0	0	0	0
4. Other Commercial RO	.75	No Limit	0	0	0	0	0	0
5. Navy (Military) Nuclear		36 Months						
(RO, EWS, EOOW, PPWS)	.50		0	19	0	18	18	24
(Other)	.25		4.5	0	9	0	0	0
6. Simulator		12 Months						
(Reference Plant)	5.00	(12 Months)	0	0	0	0	0	0
(Similar)	3.00	(9 Months)	3	3	3	3	3	4.14
7. Nuclear Plant Experience on Shift (Own Plant)		24 Months						
(Less Than 1½ Years Prior to FL)	.75	(12 Months)	12	12	12	12	12	12
(More Than 1½ Years Prior to FL)	.50	(12 Months)	12	12	12	12	12	12
8. Licensed Classroom Training and Exam (Own Plant)	.50	9 Months	9	9	9	9	9	9
9. Participation at Operating Plant	.75	12 Months	0	0	0	0	0	9
10. Other Nuclear Plant Experience	.25	12 Months	0	0	0	0	0	0
11. Conducting License Training	.25	9 Months	0	0	0	0	0	0
12. Degree (Engineering, Applied Science or Equivalent)		12 Months						
(Bachelors Degree)		(12 Months)	0	0	2	0	0	0
(Associates Degree)		(6 Months)	0	0	0	0	0	0
TOTAL NUCLEAR PLANT EXPERIENCE			40.5	55	47	54	54	70.14

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OPERATING SHIFT EXPERIENCE

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

JOB TITLE (NOTE 2) Auxiliary Operator (RO) Current
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	0	0	0	0	0	0	0	0	0	0
2. Other Commercial SRO	.75	No Limit	0	0	0	0	0	0	0	0	0	0
3. Same Type Commercial RO	1.00	No Limit	0	0	0	0	0	0	0	0	0	0
4. Other Commercial RO	.75	No Limit	0	0	0	0	0	0	0	0	0	0
5. Navy (Military) Nuclear		36 Months										
(RO, EWS, EOOW, PPWS)	.50		0	0	0	0	0	0	0.5	0	0	0
(Other)	.25		15	0	9	10	6	9	3.25	3	12	15
6. Simulator		12 Months										
(Reference Plant)	5.00	(12 Months)	0	5	0	0	0	0	0	0	5	5
(Similar)	3.00	(9 Months)	3	0	3	3	3	3	3	3	0	0
7. Nuclear Plant Experience on Shift (Own Plant)		24 Months										
(Less Than 1½ Years Prior to FL)	.75	(12 Months)	0	0	0	0	0	0	0	0	0	0
(More Than 1½ Years Prior to FL)	.50	(12 Months)	12	12	12	12	12	12	12	12	12	12
8. Licensed Classroom Training and Exam (Own Plant)	.50	9 Months	4.56	3.86	4.59	4.86	4.66	4.76	4.79	4.79	3.55	4.5
9. Participation at Operating Plant	.75	12 Months	18	0	0	22.5	0	0	0	0	0	0
10. Other Nuclear Plant Experience	.25	12 Months	0	0	0	1.5	0	0	0	0	0	0
11. Conducting License Training	.25	9 Months	0	0	0	0	0	0	0	0	0	0
12. Degree (Engineering, Applied Science or Equivalent)		12 Months										
(Bachelors Degree)		(12 Months)	0	0	1	0	0	0	0	0	0	0
(Associates Degree)		(6 Months)	0	0	0	0	0	0	0	0	0	0
TOTAL NUCLEAR PLANT EXPERIENCE			52.56	20.86	29.59	53.86	25.66	28.76	23.54	22.79	32.55	36.5

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OPERATING SHIFT EXPERIENCE

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

JOB TITLE (NOTE 2) Auxiliary Operator (RO) Projected

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	0	0	0	0	0	0	0	0	0	0
2. Other Commercial SRO	.75	No Limit	0	0	0	0	0	0	0	0	0	0
3. Same Type Commercial RO	1.00	No Limit	0	0	0	0	0	0	0	0	0	0
4. Other Commercial RO	.75	No Limit	0	0	0	0	0	0	0	0	0	0
5. Navy (Military) Nuclear		36 Months										
(RO, EWS, EOOW, PPWS)	.50		0	0	0	0	0	0	0.5	0	0	0
(Other)	.25		15	0	9	10	6	9	3.25	3	12	15
6. Simulator		12 Months										
(Reference Plant)	5.00	(12 Months)	0	5	0	0	0	0	0	0	5	5
(Similar)	3.00	(9 Months)	3	0	3	3	3	3	3	3	0	0
7. Nuclear Plant Experience on Shift (Own Plant)		24 Months										
(Less Than 1½ Years Prior to FL)	.75	(12 Months)	12	12	12	12	12	12	12	12	12	12
(More Than 1½ Years Prior to FL)	.50	(12 Months)	12	12	12	12	12	12	12	12	12	12
8. Licensed Classroom Training and Exam (Own Plant)	.50	9 Months	8.96	8.26	8.99	9	9	9	9	9	7.95	8.9
9. Participation at Operating Plant	.75	12 Months	18	0	0	22.5	0	0	0	0	0	0
10. Other Nuclear Plant Experience	.25	12 Months	0	0	0	1.5	0	0	0	0	0	0
11. Conducting License Training	.25	9 Months	0	0	0	0	0	0	0	0	0	0
12. Degree (Engineering, Applied Science or Equivalent)		12 Months										
(Bachelors Degree)		(12 Months)	0	0	1	0	0	0	0	0	0	0
(Associates Degree)		(6 Months)	0	0	0	0	0	0	0	0	0	0
TOTAL NUCLEAR PLANT EXPERIENCE			68.96	37.26	45.99	70	42	45	39.75	39	48.95	52.9

INSTRUCTIONS FOR THE USE OF THE NUCLEAR POWER PLANT EXPERIENCE FACTORS FOR OPERATING SHIFT POSITIONS (OL APPLICANTS).

1. Commercial Plant SRO/RO - Same Type Plant

This experience factor is applicable when the individual was assigned to licensed operator duties at a commercial nuclear power plant of the same type as the one for which the operating license is sought.

2. Commercial Plant SRO/RO - Not From the Same Type Plant

This experience factor is applicable when the individual was assigned to licensed operator duties at a commercial nuclear power plant which is not of the same type as the one for which the operating license is sought.

3. Military Nuclear Operating Experience

This experience factor is applicable when the individual was assigned in the positions as listed at a military nuclear power plant.

Position	Weighting Factor
RO, EWS, EOOW, PPWS	0.5
Other	0.25

The maximum combined credit given to any individual for this experience is 36 months.

4. Full Scope Nuclear Power Plant Simulator

This experience factor is applicable for the actual time spent in the simulator control room in a structured training program. When a plant reference simulator is used in the training program, the 5.0 weighting factor is used with a maximum credit of 12 months. When a similar simulator is used in the training program, the 3.0 weighting factor is used with a maximum credit of 9 months. If both a plant reference simulator and a similar simulator are used in the training program, the weighting factors are applied as indicated above but the combined total maximum credit may not exceed 12 months.

5. Nuclear Power Plant Experience on Shift at Own Plant

This experience factor is applicable when the individual is actually assigned on-shift operating duties at his own plant. The weighting factors are applied as indicated for the periods in question and the combined maximum credit for both may not exceed 24 months.

6. License Classroom Training and Examination at Own Plant

This experience factor is applicable when an individual successfully participates in a license training program including an examination for the position for which the license is being sought. This experience is applicable to the classroom portions for the license training program as the simulator and on-the-job training is addressed in one of the other experience factors. The weighting factor and maximum credit is applied as indicated.

7. Participation in Operational Duties at an Operating Commercial Nuclear Power Plant

This experience factor is applicable when an individual has participated in operational duties. In determining participation for this experience factor, either direct hands-on operation or as direct participation in review and discussions leading to decisions relative to operating a nuclear power plant can be used. Personnel assigned as equipment or auxiliary operators would realize experience under this category and could be assigned a maximum of 12 months experience credit.

8. Other Nuclear Power Plant Experience

This experience factor is applicable when the individual has performed his job duties related to design, construction, operation, startup testing, maintenance or preoperational testing of any nuclear power plant. The weighting factor and maximum credit should be applied as indicated.

9. Conducting License Training

This experience factor is applicable for those individuals who provide training in license training programs. This experience is applicable for individuals who provide this training on-site or at any other facility. The weighting factor and maximum credit should be applied as indicated.

10. Degree (Engineering or Applied Science)

This experience factor is applicable for completion of degree requirements and credit for equivalent college work. For Bachelors and Associate degrees, credit may be assigned as indicated. Experience credit for college work toward a degree may be assigned at the rate of one (1) month experience credit for each ten (10) semester hours college credit earned. This experience credit may only be assigned for the technical subjects in the engineering or applied science degree programs. The maximum credit that may be assigned to this experience factor is 12 months.