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Babcock & Wilcox

Power Generation Group
P.O. Box 1260, Lynchburg, Va. 24505
Telephone: (804) 384-5111

January 15, 1974

Mr. Richard M. Klingaman
Plant Superintendent
Metropolitan Edison Company
P. O. Box 480
Middletown, Pennsylvania 17057

Dear Mr. Klingaman:

Subject: Metropolitan Edison Company Operator Training
Documentation - B&W Reference [illegible]

The Metropolitan Edison Company personnel listed below completed a two-week operator training course on the Babcock and Wilcox Nuclear Power Plant Simulator on November 30, 1973.

| | |
|---|---|
| J. Banks | W. Crow |
| T. Acker | D. Fibbitz |

The attached Trainee Evaluation and Training Summary Checklists for each individual are forwarded for your information and training records.

Should you have any questions or require any additional information, please call me.

Very truly yours,

G. J. Stoll, Manager
Nuclear Training Center

GJS/hh

Enclosure

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BEST COPY

THE BABCOCK & WILCOX COMPANY

NUCLEAR TRAINING CENTER

LYNCHBURG, VIRGINIA

TRAINEE EVALUATION AND TRAINING SUMMARY

FOR

SIMULATOR TRAINING (SHORT COURSE)

PH. M. [illegible]

[illegible]

METROPOLITAN EDISON

Company

CONFIDENTIAL
COUNSEL ONLY

THE BABCOCK & WILCOX COMPANY
NUCLEAR TRAINING CENTER
FOREWORD

This Training Summary Report booklet has been compiled to provide the employer of the trainee with a summary of the training received on the Babcock and Wilcox Nuclear Power Plant Simulator.

In addition to the copy forwarded to the employer, a copy will be retained on file at the Nuclear Training Center.

CONTENTS

Section A

SUMMARY OF TRAINING PROGRAM CONTENTS

1. During the period between November 19 and November 30, 1973 Mr. W. Zeno completed a Two week Operator Training Course on the Pressurized Water Nuclear Power Plant Simulator at the Babcock & Wilcox Nuclear Training Center, Lynchburg, Virginia.

2. The training program consisted of the following:

| | | |
|---|---|---|
| Control Room Operations | 40 | hours |
| Lectures | 26 | hours |
| Study | 18 | hours |
| Written Examinations | 4 | hours |

The total hours in the control room were divided approximately equal in the following shift positions:

Shift Supervisor (SS)
Reactor Operator (RO)
Assistant Reactor Operator (ARO)

3. Lecture subjects and hours per subject are as follows:

| Subject | Hours |
|---|---|
| a. Course Introduction and Plant Familiarization | 2 |
| b. Plant Operations | 16 |
| c. Soluble Poison Concentration Control | 4 |
| d. Reactivity Balance | 4 |

4. The normal, abnormal and emergency operations in which the trainee participated are as follows:

| Normal Operations | No. of Times Performed |
|---|---|
| (a) Reactor Startup (shutdown to 0 power) | 18 |
| (b) 0-15% Power (included heatup 532-579) | 6 |
| (c) 15-100% Power | 4 |
| (d) Power Operations (manual and auto) | 10 |
| (e) 100%-15% Power | 2 |
| (f) Plant Shutdown Cooldown (100% to ~ 450F) | 1 |
| (g) Dilution at Power | 1 |
| (h) Reactivity Balance/Estimated Critical Positions | 6 |

4. (Continued)

| Abnormal/Emergency Operations | No. of Times Performed |
|---|---|
| (a) Reactor Trip | 2 |
| (b) Turbine Trip | 4 |
| (c) RC Pump Trip | 4 |
| (d) Dropped Control Rod | 1 |
| (e) Stuck Control Rod | 1 |
| (f) Pressurizer Spray Valve Failure | 1 |
| (g) RC Temperature Instrumentation Failures (Hot Leg and Cold Leg) | 5 |
| (h) Steam Line Rupture | 2 |
| (i) RC System Leaks | 2 |
| (j) FW Pump Trips | 4 |
| (k) Electrical Load Rejection | 1 |
| (l) | |
| (m) | |
| (n) | |
| (o) | |

## Section B

### WRITTEN EXAMINATION RESULTS

| Title | Grade | Class Average |
|---|---|---|
| Plant Operations Exam #1 | 89 | 79 |
| Plant Operations Exam #2 | 83.5 | 85.75 |
| Overall Average | 85.45 | 82.4 |

## Section C

### INSTRUCTOR'S EVALUATION

(A) The following evaluation is the opinion of the instructor(s) who worked with the trainee during the training program. Comments are based on observation and oral questioning throughout the training program.

(B) Since the period of observation was for only two weeks, a valid evaluation of the trainees capability is not possible. The following comments are provided to point out areas in which the trainee is weak and/or strong to aid in establishing further training requirements.

Mr. Zewe observed the training of the three control operators under his supervision. He also monitored the classroom lectures and took the examination.

His comments were both helpful and informative and assisted us in providing concentrate effort in areas he felt would be most beneficial to his group.

Trainee

Instructor

Babcock & Wilcox

Power Generation Group

P.O. Box 1260, Lynchburg, Va. 24505
Telephone: (804) 384-5111

May 19, 1975

Mr. James Seelinger
Superintendent of Training
Metropolitan Edison Company
P. O. Box 480
Middletown, Pennsylvania 17057

Dear Mr. Seelinger:

SUBJECT: Metropolitan Edison Company Operator Training Documentation - B&W Reference 601-8027

The Metropolitan Edison Company personnel listed below completed a one-week requalification operator training course on the Babcock & Wilcox Nuclear Power Plant Simulator.

| 24-28 March | 31 March-4 April | 7-11 April |
|---|---|---|
| Mike Ross | Bernie Smith | Gerry Wallace |
| Bill Zeve | John Morgan | Jim Smith |
| Denny Beltz | Richard Barley | George Kunder |
| Tex Acker | Robert Reilman | Ken Bryan |
| | Larry Hall | Tom Goodlavage |
| | | Walter Dash |

| 14-18 April | 21-25 April | 28 April-2 May |
|---|---|---|
| Rick Potter | Joe Chwastyk | Marsh Beers |
| Al Fredlund | Carl Guthrie | Walt Perks |
| Jim Floyd | Joe Colitz | Jack Berbein |
| Ted Book | Brian Mahler | Dale Pilsitz |
| Nelson Brown | John Banks | Greg Hitz |
| Terrence Crouse | | Joe Leisch |

The attached Training Summary Sheet for each individual is forwarded for your information and training records.

Should you have any questions or require any additional information, please call me.

Cordially,

Billy W. Street

Billy W. Street, Instructor
Nuclear Training Center

BWS:NF
Attachment
cc: J. Berbein



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BEST COPY

SUMMARY OF SIMULATOR REQUALIFICATION TRAINING

FOR

METROPOLITAN EDISON COMPANY

NAME William Zeve DATES 03/24/75 - 03/28/75

The training program consisted of 20 hours of simulator operations and 20 hours of classroom time. The 20 hours of classroom time consisted of approximately 16 hours of support lectures for the simulator operations with approximately 4 hours allotted for self-study.

| Evolutions and Emergencies in Which Trainee Participated | No. of Times Performed |
|---|---|
| Plant Startup (Hot Shutdown to 100%) | 1 |
| Loss of Feedwater to One OTSG | 1 |
| Turbine Trip | 1 |
| Reactor Coolant System Rupture | 1 |
| Dropped Control Rod | 2 |
| Steam Rupture | 2 |
| Feedwater Pump Trip With ICS in Automatic Mode | 1 |
| Feedwater Pump Trip With Diamond in Manual | 1 |
| OTSG Tube Rupture | 3 |
| Reactor Coolant Pump Trip | 2 |
| Turbine Bleeder Pressure Instrumentation Failure | 1 |
| ICS Runback With Feedwater Demand in Manual | 1 |
| Failure of Selected $T_h$ Instrument | 1 |
| Failure of Selected $T_c$ Instrument | 1 |
| Failure of NI-5 | 1 |
| Loss of Condenser Vacuum | 1 |
| Turbine Bypass Valve Fails Open | 2 |
| Loss of Running Makeup Pump | 1 |
| Feedwater ΔP Instrument Failure | 1 |
| Fail OTSG Operate Level to ICS | - |
| Fail OTSG Startup Level to ICS | - |
| Fail Pressurizer Level Control Valve | - |
| Fail Feedwater Flow Signal to [illegible] | - |
| Fail Pressurizer Level Instrument | - |
| Fail Neutron Error Signal to Diamond | - |
| Pressurizer Spray Valve Fail Open | - |
| Stuck Control Rod | - |
| Reactor Coolant Leak in Letdown Cooler | - |
| Fail Three-Way Valve | - |

Instructor, Nuclear Training Center
Babcock & Wilcox
Lynchburg, Virginia

CONFIDENTIAL

3. 1-3 PM
4. 3-5 PM
5. 6-8 PM
6. 8-10 PM

# PLANT OPERATIONS TRAINING

WEEK NO. 1
GROUP A

7. 10-12 AM
8. 12-2 PM
9. 2-4 PM
10. 4-6 PM
11. 6-8 PM

## CLASS ROOM SCHEDULE

| Date | Day | Per. | Grp. | Subject | Reference |
|---|---|---|---|---|---|
| [illegible] | Mon | 1 | A | Introduction<br>Plant Startup | |
| | | 2 | A | ICS Review<br>Turbine Trip | 1103-4<br>1202-3 |
| [illegible] | Tue | 1 | A | ICS Review<br>FW Pump Trip | 1103-4 |
| | | 2 | A | RC Pump Trip<br>Steam Rupture | 1202-14<br>1203-24 |
| [illegible] | Wed | 1 | A | Dropped Rod<br>Cond Pump Trip | 1202-8 |
| | | 2 | A | Loss of FW to One Steam Generator<br>RC Leak | 1202-26B<br>1202-6 |
| [illegible] | Thur | 1 | A | Heater Drain Pump Trip at 100%<br>S/G Tube Rupture | |
| | | 2 | A | Loss of Makeup Pump<br>Loss of Vacuum<br>[illegible] | 1203-33<br>1203-24 |
| [illegible] | Fri | 1 | A | Runback with FW Demand in Manual | |
| | | 2 | A | Instrument Failure | |

## CONTROL ROOM SCHEDULE

| Per. | Grp. | Operation |
|---|---|---|
| | | Control Room Orient. |
| 3-4 | A | Plant Startup to 100%<br>(Hot Shutdown to 100%)<br>Turbine Trip at 100% |
| 3-4 | A | Manual and Auto ICS<br>Loss of FW Pump at 100% in Auto<br>Loss of FW Pump at 100% (Demand in Manual)<br>Loss of RC Pump at 100%<br>Steam Rupture at 75% |
| 3-4 | A | Manual and Auto ICS<br>Dropped Rod From 100%<br>Loss of Condensate Pump at 100%<br>Loss of FW to One OTSG at 100%<br>RC Leak (Greater than Makeup System Capablity) |
| 3-4 | A | Heater Drain Pump Trip at 100%<br>S/G Tube Rupture<br>Loss of Running Makeup Pump<br>Loss of Condenser Vacuum<br>Change in Feedwater Temperature of 80F |
| 3-4 | A | Turbine Bypass Valve Failure<br>Runback With FW Demand in Manual<br>Turbine in Manual and Header Press Falls Low<br>Instrument Failures ($T_h$, $T_c$, $T_{avg}$, $\Delta T_c$, NI-5) |

BABCOCK & WILCOX
NUCLEAR TRAINING CENTER
LYNCHBURG, VIRGINIA

Customer Metropolitan Edison Company

Date Prepared March 18, 1975

Rev

SUMMARY OF SIMULATOR REQUALIFICATION TRAINING

FOR

METROPOLITAN EDISON COMPANY

NAME Mr. Bill Zove DATES 5/17/76 - 5/21/76

The training program consisted of 20 hours of simulator operations and 20 hours of classroom time. The 20 hours of classroom time consisted of [illegible] totaly 16 hours of support lectures for the simulator operations with approximately 4 hours allotted for supervised self-study.

| Evolutions and Instructions in Which Trainee Participated | No. of Times Performed |
|---|---|
| Reactor Startup (Hot Shutdown, all Rods in, to 100% Power) | 1 |
| Reheap Pump Failure | 1 |
| Failure of Neutron Error Signal From ICS | 1 |
| Stuck Control Rod | 1 |
| Dropped Control Rod | 1 |
| Full Power Range NI | 1 |
| Reactor Trip | 2 |
| Selected $T_h$ Instrument Failure | 2 |
| Selected $T_c$ Instrument Failure | 2 |
| RC Pump Trip | 1 |
| Full Pressurizer Spray Valve Open | 1 |
| Reactor Coolant Leak Inside Reactor Building | 1 |
| Reactor Coolant Leak in Letdown Cooler | 1 |
| [illegible] Tube Rupture | 1 |
| Steam Leak Inside Reactor Building | 1 |
| Steam Leak Outside Reactor Building | 1 |
| [illegible] Trip | 1 |
| [illegible] Levelizer. Failure | 1 |
| [illegible] Input Incorr. Failure | 1 |
| [illegible] Turbine | 1 |
| [illegible] Pump | 1 |
| [illegible] Trip | 1 |
| [illegible] Valve Open | 1 |
| [illegible] | 1 |
| [illegible] | 1 |

[illegible]
Babcock & Wilcox
Lynchburg, Virginia

14.4.5.016

Babcock & Wilcox

Power Generation Group
P.O. Box 1260, Lynchburg, Va. 24505
Telephone: (804) 239-[illegible]

July 13, 1977

Mr. Don Goodman
Group Supervisor - Nuclear & Technical Trng
Metropolitan Edison Company
P.O. Box 480
Middletown, Pa 17057

Subject: Metropolitan Edison Company
Documentation -
B&W Ref. 601-8027-06

Dear Mr. Goodman:

The below listed personnel have completed a one-week operator training course on the Babcock & Wilcox Nuclear Power Plant Simulator:

| | |
|---|---|
| L.O. Wright | W.J. Marshall |
| ~~[illegible]~~ | F.J. Scheimann |
| C.C. Faust | B.A. Mehler |

----------and no others----------

The attached Simulator Training Summary Sheet, for each individual, is forwarded for your information and training records.

Should you have any questions or require additional information, please advise.

Cordially,

THE BABCOCK & WILCOX COMPANY

B. K. STREET, Lead Instructor
Nuclear Training Center

BKS:jds

SIMULATOR TRAINING SUMMARY SHEET

June 27-July 1, 1977

Mr. W. H. Zewe has completed a one-week training program consisting of 20 hours of classroom time and 20 hours of simulator operations.

The time spent in the simulator consisted of performing the evolutions listed below with the remainder of the time devoted to manual and automatic ICS power operations.

| Evolutions Performed | No. Performed |
|---|---|
| Dropped Rod | 2 |
| Stuck Rod | 1 |
| Reactor Trip | 3 |
| RC Pump Trip | 1 |
| Fail Selected $T_H$ Instrument | 1 |
| Fail Selected $T_C$ Instrument | 2 |
| Fail Pressurizer Spray Valve | 1 |
| Reactor Coolant Leak Inside Containment Building | 1 |
| OTSG Tube Rupture | 1 |
| Fail Turbine Bypass Valve | 1 |
| Steam Leak Inside Containment Building | 3 |
| Fail Header Pressure Signal to ICS | 1 |
| Turbine Trip | 1 |
| Fail Feedwater Pump ΔP | 2 |
| Fail OTSG Startup Level to ICS | 2 |
| Fail OTSG Operate Level to ICS | 4 |
| Feedwater Pump Trip | 1 |
| Reactor Startup (Hot shutdown, all rods in, to $10^{-8}$ amps) | 1 |
| Reactor Startup ($10^{-8}$ amps to 5% power) | 1 |
| Reactor Startup (5% power to 15% power) | 1 |
| Power Escalation (15% power to 100% power) | 1 |
| Plot 1/m | 1 |
| Failed Main Feed Valve 3 Open | 2 |
| Loss ICS Power | 1 |
| Fail MS Control Valve | 1 |

Instructor

Date

J.F. (Jim) Carson
W.E. (Kell) Perks
C.H. (Gene) Alden
H.H. (Harry) Hollmeier

GROUP P-1

Bill Jones
Perks Hardwick
Lynn Wright

## CLASS ROOM SCHEDULE

| Day No. | Day/Date | Time | Subject | Reference |
|---|---|---|---|---|
| 1 | MONDAY 6/27/77 | 7:30 to 11:30 | CONTROL ROD DRIVE<br>DIAMOND PANEL REVIEW | W. PERKS |
| 2 | TUESDAY 6/28/77 | 7:30 to 9:30 | REACTOR PROTECTION SYSTEM | W. Perks |
| | | 12:00 to 2:00 | ICS REVIEW | J. Carson |
| 3 | WED. 6/29/77 | 7:30 to 9:30 | ICS REVIEW | J. Carson |
| | | 12:00 to 2:00 | ICS REVIEW | W. Perks |
| 4 | THURSDAY 6/30/77 | 7:30 to 9:30 | SAFETY ANALYSIS | S. LEBEAU |
| | | 12:00 to 2:00 | OTSG REVIEW | H.Hollmeier |
| 5 | FRIDAY 7/1/77 | 7:30 to 9:30 | REACTIVITY CHANGES BOL - EOL | H.Hollmeier |
| | | 12:00 to 2:00 | WEEKLY REVIEW | W. Perks |

## CONTROL ROOM SCHEDULE

| Time | Operation | Reference |
|---|---|---|
| 12:00 to 4:00 | FLOODED NOZZLE STARTUP FROM ALL RODS IN TO 100%<br>REACTOR TRIP<br>TURBINE TRIP | J. Carson |
| 9:30 to 11:30 | POWER OPERATIONS WITH UNANNOUNCED CASUALTIES | W. Perks |
| 2:00 to 4:00 | POWER OPERATIONS WITH UNANNOUNCED CASUALTIES | J. Carson |
| 9:30 to 11:30 | POWER OPERATIONS WITH UNANNOUNCED CASUALTIES | J. Carson |
| 2:00 to 4:00 | POWER OPERATIONS WITH UNANNOUNCED CASUALTIES | W. Perks |
| 9:30 to 11:30 | POWER OPERATIONS WITH UNANNOUNCED CASUALTIES | J. Carson |
| 2:00 to 4:00 | POWER OPERATIONS WITH UNANNOUNCED CASUALTIES | W. Perks |
| 9:30 to 11:30 | REVIEW SELECTED CASUALTIES | J. Carson |
| 2:00 to 4:00 | REVIEW SELECTED CASUALTIES | J. Carson |

METROPOLITAN EDISON CO.
Customer

BABCOCK & WILCOX
NUCLEAR TRAINING CENTER
LYNCHBURG, VIRGINIA

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Babcock & Wilcox

Power Generation Group
P.O. Box 1260, Lynchburg, Va. 24505
Telephone: (804) 384-5111

February 1, 1978

Mr. Dick Zechman
Supervisor of Training
Metropolitan Edison Co.
P.O. Box 480
Middletown, Pa.

Subject: Metropolitan Edison Co.
Documentation - B&W Ref.
No. 601-8027-03-00

Dear Mr. Zechman:

The below listed individual has completed three (3) days of operational training on the Babcock & Wilcox Nuclear Power Plant Simulator:

~~Wm. A. Jones~~

The attached Simulator Training Summary Sheet is forwarded for your information and training records.

Should you have any questions or require additional information, please advise.

Sincerely,

WALTER E. HEINS, Lead Instructor
Nuclear Training Center

WEP:jds

SIMULATOR TRAINING SUMMARY SHEET

January 23-25, 1978

[illegible], _____ has completed three (3) days of a training program consisting of 12 hours of classroom time and 12 hours of simulator operations.

The time spent in the simulator consisted of performing the evolutions listed below with the remainder of the time devoted to manual and automatic ICS power operations.

| Evolutions Performed | No. Performed |
|---|---|
| Motor Fault | [illegible] |
| Dropped Rod | [illegible] |
| Reactor Trip | [illegible] |
| Fail Selected TH Instrument | [illegible] |
| Fail RC Flow Signal to ICS | [illegible] |
| Reactor Coolant Leak Inside Containment Building | [illegible] |
| Steam Leak Outside Containment Building | [illegible] |
| Fail Header Pressure Signal to ICS | [illegible] |
| Turbine Trip | [illegible] |
| Fail Feedwater Pump ΔP | [illegible] |
| Fail OTSG Operate Level to ICS | [illegible] |
| Feedwater Pump Trip | [illegible] |
| Degrade Feedwater Pump Shaft Speed Demand Signal | [illegible] |
| Load Rejection | [illegible] |
| Reactor Startup (Hot shutdown, all rods in, to $10^{-8}$ amps) | [illegible] |
| Reactor Startup (Hot shutdown, safety rods out, to $10^{-8}$ amps) | [illegible] |
| Reactor Startup ($10^{-8}$ amps to 5% power) | [illegible] |
| Reactor Startup (5% power to 15% power) | [illegible] |
| Power Escalation (15% power to 100% power) | [illegible] |
| Dropped Group 1 Rods | [illegible] |
| Failed Tave to ICS | [illegible] |
| Ejected Rod with RC Leak | [illegible] |

[illegible] _____ [illegible] _____
Instructor, Nuclear Training Center  Date

H.J. (Harry) Pellmeier
W.B. (Bill) Perks
C.H. (Gene) Alden
J.A. (John) Lind
J.P. (Jim) Carson

REFRESHER PROFESSIONAL TRAINING

GROUP 1

Bill Revb.

## CLASS ROOM SCHEDULE

| Day No. | Day/Date | Time | Subject | Reference Instructor |
|---|---|---|---|---|
| 1 | MONDAY 1/23/78 | 7:30 to 9:30 | CRD REVIEW/DIAMOND PANEL REVIEW | W.P. |
| | | 9:30 to 11:30 | SAFETY ANALYSIS | R.J. Schorsaker |
| 2 | TUESDAY 1/24/78 | 7:30 to 9:30 | ICS REVIEW | G.A. |
| | | 12:00 to 2:00 | PUSH PULL PLANT CONTROL | Brian Delano |
| 3 | WEDNESDAY 1/25/78 | 7:30 to 9:30 | OTSG REVIEW | H.H. |
| | | 12:00 to 2:00 | ICS REVIEW | G.A. |

## CONTROL ROOM SCHEDULE

| Time | Operation | Reference Instructor |
|---|---|---|
| 12:00 to 4:00 | FLOODED REACTOR STARTUP FROM ALL RODS IN TO ICOS<br>REACTOR TRIP<br>TURBINE TRIP | G.A. |
| 9:30 to 11:30 | LOAD REJECTION<br>FEED PUMP TRIP - DECREASE SHAFT SPEED<br>STEAM LEAK OUTSIDE R.B. | G.A. |
| 2:00 to 4:00 | CONTROL ROD DRIVE MALFUNCTIONS<br>LOOP CIRCUIT 1 RCPM BREAKS 601 POWER<br>STEAM LEAK INSIDE R.B. | G.A. |
| 9:30 to 11:30 | REACTOR COOLANT PUMP TRIP<br>OTSG LEVEL FAILURES-FEED PUMP AP FAILURES | G.A. |
| 2:00 to 4:00 | TH INSTRUMENT FAILURE<br>RC SYSTEM RUPTURE WITH FAILED MAKEUP PUMP<br>ROD EJECTION WITH RC LEAK | H.H. |

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Babcock & Wilcox

Power Generation Group
P.O. Box 1260, Lynchburg, Va. 24505
Telephone: (804) 384-5111

January 22, 1979

Mr. Dick Zechman
Supervisor of Training
Metropolitan Edison Co.
P.O. Box 480
Middletown, Pa.

Subject: Metropolitan Edison Company
Documentation - B&W Ref. No.
601-8027-09-00

Dear Dick:

The below listed personnel have completed a one week operator training course on the Babcock & Wilcox Nuclear Power Plant Simulator:

William Zewe
Dale L. Pilsitz
James Masters
Stuart Brantley
David Mayhoe
Michael Ross
and no others

The attached Simulator Training Summary Sheet, for each individual, is forwarded for your information and training records.

If you have any questions, please advise.

Sincerely,

JOHN A. LEED, Lead Instructor
Nuclear Training Center

JAL:jds

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SIMULATOR TRAINING SUMMARY SHEET

January 15-19, 1979

[redacted] has completed a one week training program consisting of 16 hours of classroom time and 20 hours of simulator operations.

The time spent in the simulator consisted of performing the evolutions listed below with the remainder of the time devoted to manual and automatic ICS power operations.

| Evolutions Performed | No. Performed |
|---|---|
| Fail Makeup Pump | 1 |
| Defeat Neutron Error Signal from ICS | 2 |
| Motor Fault | 1 |
| Dropped Rod | 1 |
| Stuck Rod | 2 |
| Retarded Rod Motion | 1 |
| Fail Power Range NI | 1 |
| Reactor Trip | 7 |
| RC Pump Trip | 2 |
| Fail Selected TH Instrument | 2 |
| Fail Selected Tc Instrument | 2 |
| Fail RC Flow Signal to ICS | 2 |
| Fail Pressurizer Spray Valve | 3 |
| Fail Pressurizer Level Signal | 1 |
| Reactor Coolant Leak Inside Containment Building | 2 |
| OTSG Tube Rupture | 2 |
| Steam Leak Outside Containment Building | 2 |
| Steam Leak Inside Containment Building | 2 |
| Turbine Trip | 2 |
| Fail Feedwater Pump AP | 1 |
| Fail OTSG Startup Level to ICS | 1 |
| Fail OTSG Operate Level to ICS | 3 |
| Condensate Pump Trip | 1 |
| Fail Feedwater Flow Signal to ICS | 1 |
| Feedwater Pump Trip | 3 |
| Load Rejection | 3 |
| Reactor Startup (Hot shutdown, all rods in, to $10^{-8}$ amps) | 1 |
| Reactor Startup ($10^{-8}$ amps to 5% power) | 1 |
| Reactor Startup (5% power to 15% power) | 1 |
| Power Escalation (15% power to 100% power) | 1 |
| Plant Reduction (100% power to 15% Power) | 1 |
| ±10% Reactor Power Change with Reactor Control in Manual | 5 |
| Plant Temperature Change ≥50°F | 1 |
| Reactor Trip without Turbine Trip | 2 |
| Failed Tave to 570 in the ICS | 2 |
| Failed Main Feedwater Valve Open | 1 |

(Continued)

| Evolutions Performed | No. Performed |
|---|---|
| Failed "A" Steam Generator Pressure to ICS High | 1 |
| Failed "A" Main Feedwater Valve Closed | 1 |
| Decreased Condenser Vacuum | 2 |
| Failed Reactor Power to 60% in ICS | 1 |
| Feed Pump Trip with Neutron Error Defeated in ICS | 1 |
| Dropped Rod Group 7 with Diamond in Manual | 1 |
| Ejected Rod Group 7 | 1 |
| Loss of Both Feed Pumps | 1 |
| Failed Turbine Bypass Valve | 1 |
| Failed Header Pressure Signal to ICS | 1 |
| Degraded HP Heater | 1 |
| Reactor Startup (Hot shutdown, safety rods out, to $10^{-8}$ amps) | 1 |

Instructor, Nuclear Training Center — Date: 11-4-77

[illegible] TRAINING CENTER
[illegible] Hellmeier
J.A. [illegible] Lind
T.L. [illegible] Beck
V.E. [illegible] Reppel
A.V. [illegible] White

SIMULATOR REQUALIFICATION TRAINING

GROUP 1

[illegible] Dave [illegible]
Jim Bradley
Jim Hastara

## CLASS ROOM SCHEDULE

| Day No. | Day/Date | Time | Subject | Reference Instructor |
|---|---|---|---|---|
| 1 | MONDAY 1/15/79 | 1200 to 1400 | CRD REVIEW/OPERATIONAL PROBLEMS | J.L. |
| | | 1400 to 1600 | INTEGRATED CONTROL SYSTEM | T.B. |
| 2 | TUESDAY 1/16/79 | 0930 to 1130 | CONTROL ROD DRIVE | J.L. |
| | | 1400 to 1600 | HEAT TRANSFER | T.B. |
| 3 | WEDNESDAY 1/17/79 | 0730 to 0930 | DTDG REVIEW/TUBE RUPTURE | H.B. |
| | | 1100 to 1400 | POWER DIST. & ROD WITHDRAWAL LIMITS | V.H. |
| 4 | THURSDAY 1/18/79 | 0930 to 1130 | PUSH PULL | BRIAN DELANO |
| | | 1400 to 1600 | ICS REVIEW/TRANSIENT RESPONSE | T.B. |
| 5 | FRIDAY 1/19/79 | 0930 to 1130 | Continued Rod Withdrawal & Dist. | T.B. |
| | | 1400 to 1600 | REACTOR COOLANT PUMPS | M.M. |

## CONTROL ROOM SCHEDULE

| Time | Operation | Reference Instructor |
|---|---|---|
| 0730 to 1130 | REACTOR STARTUP FROM ALL RODS IN TO 1000 PSI<br>REACTOR TRIP<br>TURBINE TRIP | T.B. |
| 0730 to 0930 | POWER OPERATIONS WITH UNANNOUNCED CASUALTIES | V.H. |
| 1200 to 1400 | POWER OPERATIONS WITH UNANNOUNCED CASUALTIES | A.W. |
| 0930 to 1130 | POWER OPERATIONS WITH UNANNOUNCED CASUALTIES | J.L. |
| 1200 to 1600 | POWER OPERATIONS WITH UNANNOUNCED CASUALTIES | J.L. |
| 0730 to 0930 | POWER OPERATIONS WITH UNANNOUNCED CASUALTIES | A.W. |
| 1200 to 1400 | POWER OPERATIONS WITH UNANNOUNCED CASUALTIES | A.W. |
| 0730 to 0930 | POWER OPERATIONS WITH UNANNOUNCED CASUALTIES | V.H. |
| 1200 to 1400 | POWER OPERATIONS WITH UNANNOUNCED CASUALTIES | V.H. |

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