Consumers Power Company

COPY

General Offices: 212 West Michigan Avenue, Jackson, Michigan 49201 • (517) 788-0550

January 22, 1981

Director, Nuclear Reactor Regulation
Att Mr Dennis M Crutchfield, Chief
Operating Reactors Branch No 5
US Nuclear Regulatory Commission
Washington, DC 20555

DOCKET 50-155 - LICENSE DPR-6 -
BIG ROCK POINT PLANT - EMERGENCY
PROCEDURES AND TRAINING PROGRAM
RELATING TO THE RECOGNITION AND
MITIGATION OF ANY ANTICIPATED
TRANSIENT WITHOUT SCRAM (ATWS)
EVENT

Amendment No 38 (dated 1/15/81) to Facility Operating License No DPR-6 for the Big Rock Point Plant required Consumers Power Company to submit, prior to restart from the 1980 refueling outage, the emergency procedures and training program that relate to the recognition and mitigation of an ATWS event.

The following attached procedures provide both the emergency and off-normal procedural responses related to ATWS and the inability to insert control rod(s), respectively:

Attachment 1 - Procedure #EMP 3.5A Rev 2 (7/18/80), Anticipated Transients Without Scram (ATWS)

Attachment 2 - Procedure #ONP 2.9 Rev 3 (7/17/80), Multiple Rod Insert Failure (Two or More)

Attachment 3 - Procedure #ONP 2.8 Rev 1, Single Rod Insert Failure

Attachments 1 and 2 have been updated to address the recent failure to scr[illegible] event at Browns Ferry 3 (IE Bulletin No 80-17).

Training in accordance with NRC regulations in the use of the above procedures is provided to all licensed operations personnel (SROs and ROs); some non-licensed Auxiliary Operators, all Shift Technical Advisors (STAs); and, all on-duty Superintendents. This training occurs in the form of onsite classroom training and offsite simulator training at the GE BWR TC simulator (Morris, Ill.). The ATWS training at the simulator involves the ATWS sequences of events first in actual speed:

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S
1/40

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then in stop action; and, again at actual speed. Big Rock Point operators have consistently performed the actions required during the ATWS event (ie, recognition of the event and performance of required actions) in less than one minute during simulator training. The following attached Operator Requalification Program, Three-Day Simulator Program and Procedures Manual Revision review documents provide the basic training applicable to ATWS events:

Attachment 4 - Appendix K - Big Rock Point Plant - Three-Day Simulator Program - GE BWR TC Simulator

Attachment 5 - 1980 Operator Requalification - Requalification Classroom Review - 6-80

Attachment 6 - Consumers Power Company - Big Rock Point Nuclear Plant - Record of QA Review for Licensed RO/SRO and Prospective Licensees - 07/18/80 (for EMP 3.5A Rev 2)

(NOTE: ATWS references have been underlined in these documents)

Attachments 1 through 6 were previously given to the NRC staff during a meeting on January 19, 1981 as an informal submittal of the information required by Amendment No 38.

David P Hoffman (Signed)

David P Hoffman
Nuclear Licensing Administrator

CC Director, Region III, USNRC
NRC Resident Inspector - Big Rock Point

Attachment - 29 pages

Anticipated Transients Without Scram (ATWS) EMP 3.5A Rev. 1

2/25/80

EMP 3.5A ATWS

An ATWS is a primary system transient in which a reactor trip setpoint is exceeded but a complete scram doesn't occur (ie, an insufficient number of drives or notches insert to lower reactor power sufficiently to reduce reactor pressure).

The consequences will vary with: The initial power level, number of rods that fail to insert, their relative location in the core and the initiating event.

The most severe ATWS postulated is caused by the main steam isolation valve closing or a turbine trip with failure of the bypass valve to open at 100% power and all rods fail to scram. Under these conditions neutron flux will spike to 200% and then steady out at ~120%. The emergency condenser comes into operation and four drum reliefs lift causing containment pressure to reach 1.5 psig in less than 30 seconds. During this accident, our normal water supply would be depleted in approximately 6 minutes.

3.5A.1 Symptoms

a. Reactor scram setpoint exceeded with or without annunciation.
b. All control rod drives not at "00" position.
c. Flux level still above 4% power.
d. Primary system pressure at or above 1360 psig.

3.5A.2 Automatic Actions

a. Safety system may or may not trip depending on whether failure of the safety system is the cause of the ATWS.
b. Emergency condenser comes into operation if reactor pressure exceeds 1435 psig.
c. Drum reliefs lift if reactor pressure exceeds 1535 psig., the Steam Drum Relief Valve Monitor High Alarm should annunciate and the high alarm lamp should illuminate for open relief valves.

3.5A.3 Immediate Operator Action

a. Push the manual scram push button.

b. Trip both recirc pumps (reduces core power 60%).

c. If the Channel 1 and Channel 2 scram annunciators are not alarming, trip the undervoltage breakers for the safety system.

d. If reactor pressure is greater than 1360 psig and not falling, inject the liquid poison by simultaneously closing HS 7008 and HS 7009 for five seconds. (Circuit failure alarms indicate proper operation.)
Ref. SOP 4 - Liquid Poison System

e. Trip the clean up pump by either:
1. Pull the cover of TSX-1507-2 located on the back of the plant temperature recorder and depress the relay or:
2. Open breaker 52-1A-25 (clean up pump) at 480 volt panel 1A in the electrical equipment room.

f. Until all control rods are verified to be fully inserted monitor the reactor for decreasing neutron flux and indication of local areas of high reactivity while performing the following in order:
1. If scram dump tank hi level alarm is in, bypass the SDT alarm by:
(a) Put the mode switch to BPDT.
(b) Insert key in HS7048, turn switch to right and hold.
(c) After tank drains, return mode switch to RUN.
2. Individually scram those rods not fully inserted starting with those in local areas of indicated high reactivity. Reset each after it fully inserts and continue to scram rods until all rods are fully inserted. If rods will not scram in:
(a) Try manual scram again.
(b) Insert rods manually as the rod sequence permits.

3.5A.3 Immediate Operator Action (continued)

g. If drum reliefs were actuated as annunciated on the Relief Valve Monitor and containment pressure is 2 psig or greater, use primary containment sprays (MO-7064) to reduce pressure and;

h. Sound the plant siren for two minutes and initiate the "Site Emergency Plan."

3.5A.4 Subsequent Operator Action

a. Attempt to maintain feed water system by transferring water from radwaste and the demin tank to the condensate storage tank.

b. Check emergency condenser for proper operation.

c. If the scram valves do not indicate open, close the instrument air supply valve to the sphere (located in the equipment room).

d. Containment sprays must be valved out before drum level goes off scale on the low side. This is to provide adequate margin of water for core spray in the event that a relief valve has stuck open or other type LOCA has occured due to over pressure.

ONP 2.9 MULTIPLE ROD INSERT FAILURE

This procedure will address three different conditions for rod insert failure; multiple rod insert failure following a scram with subsequent power above as well as below 4% and the case where multiple rods fail to insert when being driven in manually.

ONP 2.9.1 If two or more control rods fail to insert after a reactor scram and reactor power remains greater than 4%, perform the actions of EMP 3.5A, "Anticipated Transients without Scram."

ONP 2.9.2 Two or more control rods fail to insert after a reactor scram and reactor power is less than 4% and is stable or decreasing:

CAUTION: If reactor water level cannot be maintained and unable to maintain reactor subcritical, inject liquid poison (ref. SOP 4).

2.9.2.1 Symptoms

1. Channel 1 and Channel 2 scram annunciators on
2. Reactor power indicates less than 4%
3. CRD position indicators on two or more drives indicate a position other than "00".

2.9.2.2 Automatic Actions

None.

2.9.2.3 Immediate Operator Actions

If two or more control rods fail to insert after an automatic reactor scram, depress the manual scram button.

NOTE: If the failure to scram occurs during a shutdown using the "manual scram," place the mode switch in "shutdown" momentarily to insert another scram signal and then if necessary proceed on with this procedure.

1. Confirm all scram valves are open by observation of scram valve position lights. If not, de-energize the Reactor Protection System by tripping the RPS breakers.

2.9.2.3 Immediate Operator Actions (continued)

2. Place the reactor mode switch in the "bypass dump tank" position.
3. Insert key in HS7048, turn switch to right and hold.
4. Reset reactor safety system.
5. Continue to hold HS7048 until dump tank high level alarm resets, then release and remove key from HS7048.

2.9.2.3 Immediate Operator Actions (continued)

6. Attempt to manually insert those control rods which failed to insert at time of scram. If control rods cannot be fully inserted, individually scram them. Consider scramming rods in areas of high reactivity first.
7. If control rod inward motion was observed during step 6 above, but full insertion did not occur, return the control rod circuit breakers on power switches for reactor protection system channels 1 and 2 to the "on" position. Repeat Step 6 until control rods are fully inserted.

ONP 2.9.3 If two or more control rods fail to insert following an insertion signal but a scram has not occurred:

2.9.3.1 Symptoms

Two or more selected control rods have been given individual insert signals and the following observations are made:

1. The control rod(s) position digital display unit numerical value does not change and/or decrease.
2. The out-of-core neutron monitoring instrument meters do not change and/or decrease in their readout values.
3. The out-of-core neutron monitoring instrument recorders do not change and/or decrease in their recorded values.

2.9.3.2 Automatic Actions

The automatic operations associated with the control rods are.

1. Rod drive high temperature alarm at 250°F.
2. Rod drive accumulator lo pressure alarm at 750 psig. Two low accumulators prohibit control rod withdrawal to assure that shutdown criteria is not exceeded.
3. Control rod drive filter(s) high Δp alarm at 20 psig.

2.9.3.3 Immediate Operator Action

1. Check control rod drive(s) selector switch's (alphabetical and numerical) positions to assure selected drive number. Also observe selected drive(s) digital display unit is illuminated.
2. Check control rod drive system operating pressures normal:
   Accumulator Charging Header PR +400
   Rod Drive Header PR +200
   Rod Drive Cooling Header PR +30
3. Check breaker 4CB1 closed, located in Section "C" of control console in control room. (Toggle up is closed.)
4. Check control rod drive system filter(s) for high $\Delta p > 20$ psig.
5. Check rod drive temperature recorder for individual high rod drive(s) temperature.
6. Check control rod drive(s) associated valving for proper alignment.
7. Check control rod drive(s) Atkomatic hydraulic system "A" and/or "B" set, whichever is in service, for proper valving alignment. Verify "A" and/or "B" Atkomatic set selector switch position inside control console Section "C" control room.

2.9.3.4 Subsequent Operator Actions

1. After verifying selected control rod(s) selector switch's position, check control rod drive(s) selector valve(s) for proper operations, adjust rate set valves and/or clean screens in rate set block assembly.
2. Readjust control rod drive system operating pressure and/or switch control drive pumps. Try increasing drive pressure to move control rods.

2.9.3.4 Subsequent Operator Actions (continued)

3. If control rod drive filter is ≥ 20 psig, cut in standby filter and valve out high Δp filter.
4. If the control rod drive(s) associated valving is properly aligned, switch Atkomatic hydraulic system valving from "A" to "B" set or vice versa, depending on which set is in service at the time.
5. If control rod drive(s) temperature is 350°F, and coolant flow is lost to all drives, manually scram reactor.
6. If two or more control rods cannot be inserted and the reactor power is stable: Immediately shut down the reactor per control rod insert procedure sequence cards.

The reactor shall be shut down:

a. If it is determined by investigation that the manfunction which has occurred impairs the ability to control the reactor.
b. If the core shutdown margin requirement cannot be met with the remaining operable rods, evaluation of this requirement shall be based on previous experimental measurements.
c. If control rod drive(s) temperature is 350°F and coolant flow is lost to all drives, manually scram reactor. (High rod drive temperature may cause graphitar seals to swell and bind the drive(s), preventing control rod insertion.)
d. The liquid poison system shall be used at any time reactor subcriticality cannot be assured due to failure of normal shutdown mechanism. Ref. SOP 4 - Liquid Poison System.

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Single Rod Insert Failure - ONP 2.8, Rev 1

ONP 2.8 SINGLE ROD INSERT FAILURE

An immediate investigation shall be made to determine the cause of a control rod failure to insert.

The reactor shall be shut down unless:

a. It is determined by investigation that any malfunction which has occurred neither impairs the ability to control the reactor nor indicates the imminent impairment of the performance of additional components of the reactivity control system.

b. The operating hydraulic water to the defective control rod has been tagged and valved out to prevent withdrawal of the control rod after an attempt has been made to insert the control rod.

c. The core shutdown margin requirement can be met with the remaining operable control rods. Evaluation of this requirement shall be based on previous experimental measurements.

d. Permission has been received from the Plant Superintendent to continue reactor operation with one control rod valved out.

ONP 2.8.1 SYMPTOMS

A specific control rod has been selected and an insert signal given and the following observations are made:

a. The control rod position digital display unit numerical value does not change and/or decrease.

b. The out-of-core neutron monitoring instrument meters do not change and/or decrease in their readout values.

c. The out-of-core neutron monitoring instrument recorders do not change and/or decrease in their recorded values.

d. An automatic and/or manual reactor scram occurs and all control rods insert except one.

ONP 2.8.2 AUTOMATIC OPERATIONS

The automatic operations associated with the control rods are:

a. Rod drive high temperature alarm at 250°F.

b. Rod drive accumulator low-pressure alarm at 750 psig (two required) (prohibits control rod withdrawal to assure that shutdown criteria are not exceeded).

c. Control rod drives filter(s) high Δp alarm at 20 psig.

d. Control rods insertion upon initiation of an automatic or manual scram function.

ONP 2.8.3 IMMEDIATE OPERATOR ACTIONS

a. Check control rod drive selector switches (alphabetical and numerical) positions to assure selected drive number. Also observe selected drive digital display unit is illuminated.

b. Check control rod drive system operation pressures normal:
Accumulator Charging Header PR + 400
Rod Drive Header PR + 200
Rod Drive Cooling Header PR + 30

c. Select another control rod drive and give it an insert signal to determine if drive insert problem is common to all drives.

d. Check control rod drive system filter(s) for high $\Delta p > 20$ psig.

e. Check rod drive temperature recorder for individual high rod drive temperature.

f. Check control rod drive associated valving for proper alignment.

g. Check control rod drive(s) Atkomatic hydraulic system "A" and/or "B" set, whichever is in service, for proper valving alignment. Verify "A" and/or "B" Atkomatic set selector switch position, inside control console Section "C" control room.

ONP 2.8.4 SUBSEQUENT OPERATOR ACTION

a. After verifying selected control rod selector switch's position, check control rod drive selector valve for proper operation, adjust rate set valves and/or clean screens in rate set block assembly.

b. Readjust control rod drive system operating pressures and/or switch control rod drive pumps. Try increasing drive pressure to move control rod.

c. If control rod drive filter is > 20 psig, cut in standby filter and valve out high Δp filter.

d. If control rod drive temperature is > 350°F and coolant flow is lost to all drives, manually scram reactor.

e. If control rod drive associated valving is properly aligned, switch Atkomatic hydraulic system valving from "A" to "B" set or vice versa, depending on which set is in service at the time.

f. Valve out and tag the stuck control rod, with the exception of the drive cooling water which must be left "on."

g. At earliest convenience, shut down reactor and make preparations to remove the stuck drive.

h. Remove, repair and/or replace stuck drive.

APPENDIX K

BIG ROCK POINT PLANT

Three Day Simulator Program

GE BWR TC SIMULATOR

I PROGRAM OBJECTIVES:

The three-day simulator program is structured to provide operating experience during normal, off-normal and emergency conditions as would be experienced at the Big Rock Point Plant. This program meets the objective stated in the requalification program submittal to the NRC Licensing Branch in 1963, and is accepted by NRC approval of the program. Reactor Operation gained at the simulator is credited as experience on NRC License applications and reapplications or renewal.

II PRE-REQUISITES:

Students participating in the program should hold a valid NRC reactor operating or senior reactor operating license. If a license is not held, the student should have completed the reactor fundamentals course and reactor technology course. He should also have had two years of nuclear plant experience. He should be familiar with control room operation. He should have completed a three-week preparatory course conducted by the Big Rock Point training staff prior to attending the simulator course.

III ENROLLMENT:

The maximum number of students attending the three-day simulator program should be limited to four. This may be exceeded if this is a familiarization session prior to hot license demonstration course, or a first time visit for information purposes.

IV COURSE PRESENTATION:

The three-day simulator program consists of practical hands-on demonstration on similar controls as are located at the Big Rock Point Plant.

IV COURSE PRESENTATION: (continued)

The simulator control consol being of a somewhat more advanced design than the BRP control room consol, requires a short familiarization with control locations. Several of the simulator systems are locked out-of-service to make the plant operate similar to Big Rock Point. The plant operation and off-normal operation very nearly duplicates the BRP plant operation. The student, when not directly involved in hands-on operation will be expected to explain plant operation during oral discussions. Students will be expected to work on reactor auxiliary panels, conventional plant system panels and reactor operating panels. One student will also be assigned to act as senior operator, directing the overall plant operation. All students are expected to take an active part in all plant manipulations as established by the simulator instructor. The simulator is to be treated as an operating nuclear plant.

Appendix "A" to this lesson plan describes the schedule for the three-day program.

ATTACHMENT I

DAY 1 BIG ROCK POINT SIMULATOR TRAINING 3-day Program

A. Initialize mode 2-165 ^{0}F Cold subcritical All rods in.

1. Check Panel 902-5 as a group (1 system per student)
   a. Feedwater and level control
   b. Control rod drive system setup and control
   c. Reactor manual control system
   d. SRM, IRMs
   e. RX recirc pumps
   f. Cleanup blowdown and flow control
2. Discuss requirements for startup-GOP 1
3. Discuss requirements for startup-RCP system
4. Discuss requirements for startup-CRD system

B. Initialize mode 2-165 ^{0}F cold subcritical

1. First operator pull critical
   a. Students observe RX response and discuss the following:
      Subcritical multiplication
      Administrative limits for startup
      Limitations on rate of power increase
      Reactor period calculations-each student
   b. Uncoupled rod-stall comp. discuss
   c. Establish htng power-increase mod temp to 185 ^{0}F discuss following:
      System heat loss-vs heating power
      Overlap of instrumentation
      Temperature coefficients
      Heatup rate limitations
   d. Reduce power thru irms until strongly subcritical
2. Second operator pull criticals from previous condition (Mode 2)
   a. Students observe response and discuss:
      Tech Specs concerning reactivity anomalies.

DAY 1 BIG ROCK POINT SIMULATOR TRAINING 3-day program (continued)

2. b. Establish heating power and increase mod temp
Discuss following:
Min temp for pressurization, operable nuclear inst channels for startup.
Minimum source range countrate for startup
Sources and contribution.

c. Initialize Mode 15 - Hot Scram Recovery

1. Third operator take reactor critical and into run mode

a. During startup discuss fission product poisons

b. Discuss plant startup requirements for turbine

c. Review procedures for turbine control system during plant heatup and startup and reasons. (BRP)

d. Trip recirculation pump

e. Discuss procedures for re-start of a recirc pump and how starting at present temp is different from a cold condition.

f. Initialize Mode 15 - Hot Scram Recovery

1. Fourth operator take reactor critical and into Run Mo

2. Instructor introduce failure of an IRM channel (fail high) Discuss BRP Log N failure before 4% and after 4% on pico's.

3. Instructor introduce failure of control rod drive hydraulic system. Discuss effects on continued operation, operator response

4. Turbine startup

a. Light off turbine

b. Synchronize T.G. to system

c. Discuss and continue power ascension

DAY II

A. Initialize Mode 6 - 850#

1. Continue plant heatup transfer mode switch to run

DAY II

2. Align feedwater system for power operation
3. Prepare turbine for startup and bring turbine to 1800 rpm
4. Synchronize turbine to grid
5. Review turbine trips
6. Trip turbine

B. Initialize Mode 6 - 850#

1. Continue plant heatup transfer mode switch to Run
2. Align feedwater system for power operation
3. Prepare turbine and generator for startup
4. Continue plant startup and power ascension. Discuss the following:

   MCHFR

   Peaking factors

   Control Rod Worth at Power

C. Instructor introduce the following conditions and discuss each individually:

1. Control rod drift in
2. Control rod scram
3. Accumulator failure
4. Stuck rod
5. Total loss of feed pumps
6. Flow control value failure-closed
7. Timer malfunction.

D. As time permits, the following items may be covered:

1. Bypass valve failure. Open, closed.
2. Recirculating pump seal failure
3. Turbine trip without bypass valves
4. Feedwater regulating valve lockup-what to do?
5. Relief valve failure without annuciation-accusitic device
6. Scram-scram recovery

DAY III

A. Initialize Mode 8, 50% power, clean

1. Discuss and observe xenon transients

NOTE: DAY 3 is a day of Transient Analysis that requires student participation

DAY III

B. Initialize Mode 9 Shutting down from 50% power

1. Perform the following transients

a. Fail feedwater master controller closed. How possible? Discuss feedwater control system.

b. Losses of flux indication

c. Place standby feed pump out of service. Fail a second feed pump

d. Fail bp valve open @ 45% power

e. Trip one recirculation pump

f. Trip 2nd RCP

g. Turbine trip

h. Manual scram

i. MSIV closure

j. Offgas valves closed

k. Cond p trips closed

l. Loss of condenser vac

m. Loss of coolant

n. ATWS

o. Loss of coolant, yarway fails Hi

p. Turbine gov closed. IPR failure

q. Loss of cond vacuum

r. BVS 21 overcurrent trip-RCP mg's and RX fd Pps

CONSUMERS POWER COMPANY

BIG ROCK POINT PLANT

REQUALIFICATION PROGRAM EVALUATION

SIMULATOR EXPERIENCE

LICENSEE'S NAME: _____ DATE: _____

1. DATE AND TYPE OF NRC LICENSE: _____
2. PRESENT LICENSE RESPONSIBILITIES: _____
3. EVALUATION INSTRUCTIONS.
   A. CHECK BOX MOST CLOSELY CONFORMING TO LICENSEE'S PERFORMANCE.
   B. ADDITIONAL REMARKS MAY BE ADDED AT THE INSTRUCTOR'S DISCRETION AT THE END OF EACH SECTION UNDER COMMENTS.
   C. COMMENTS ARE REQUIRED FOR A GRADE OF 1 (POOR) OR 2 (UNSATISFACTORY).
4. PERFORMANCE DURING REACTOR STARTUP.

   SPECIFIC AREAS OR EVOLUTIONS EVALUATED:

	Poor 1	Unsat. 2	Good 3	Very Good 4	Excellent 5	Outstanding 6
A. USE AND KNOWLEDGE OF NUCLEAR INSTRUMENTATION.						
B. _____						
C. _____						

   D. COMMENTS: _____

_____

_____

_____

_____

_____

	Poor	Unsat.	Good	Very Good	Excellent	Outstanding
	1	2	3	4	5	6
5. Performance during normal operations						
Specific areas or evolutions evaluated:						
A. _____						
B. _____						
C. _____						

D. Comments: _____

_____

	1	2	3	4	5	6
6. Performance during abnormal situations.						
Specific situations evaluated.						
A. _____						
B. _____						
C. _____						

D. Comments: _____

_____

7. General comments: _____

_____

_____

8. Instructor: _____

9. Supervisor: _____

See attached sheet for additional comments

GENERAL ELECTRIC BOILING WATER REACTOR TRAINING CENTER

Simulator Retraining Record for Big Rock Point Nuclear Plant

Student: _____ Class Dates: _____ to _____

	TYPE OF REACTIVITY CHANGE	number performed
1.	Reactor startup to point of adding heat	_____
2.	Heatup of 50% or more	_____
3.	Power Change with control rod 10%	_____
4.	Starting Rcp with reactor critical	_____
5.	Reactor operations involving emergency or special procedures where reactivity is changing	_____
6.	CRD Scram (single) and Recovery	_____
7.	_____	_____
8.	_____	_____
9.	_____	_____
10.	_____	_____
	TOTAL:	_____

Instructor: _____ Date _____

SPECIAL PROCEDURES OBSERVED OR PERFORMED

1. Loss of Coolant
2. Feedwater Malfunction, Decreasing Flow
3. Feedwater Malfunction, Increasing Flow
4. Turbine Trip with Bypass
5. Turbine Trip w/o Bypass
6. Bypass Valve Fails Open
7. Relief Valves Fail Open at Power
8. Condensate Pump Failure
9. Malfunction of Control Rod Drive System
   a. Control Rod Drive Stuck
   b. Control Rod Uncoupled
   c. Failure of Flow Control Valve
   d. Accumulator Trouble (1 & 2)
   e. Rod Drive Pump Trip (1 & 2 - cold and hot)
   f. Rod Drive Pump Trip-2nd Pump unavailable.
   g. Control Rod Drive Scram. Single
   h. CRD Drift in-leak Scram valve
   i. Timer malfunction.
10. Reactor Scram
11. Loss of Condenser Vacuum
12. Loss of Reactor RCP
13. Loss of Both Reactor RCPs.
14. Loss of Flux Indication
    a. SRM Downscale
    b. SRM Upscale
    c. SRM Detector Drive Failure
    d. IRM Upscale
    e. IRM Downscale
    f. Two IRMs Downscale

SPECIAL PROCEDURES OBSERVED OR PERFORMED

15. RPs-MG set failure > 600 psig _____
16. RPs failure-ATWS _____
17. Feedwater Valve Lockup _____
18. Offgas Hi Activity _____
19. Turb gov failed closed w/BP valve capability <45% power _____
20. Loss of cond vacuum - recovery _____
21. MSIV closes _____
22. ISOL condenser tube leak _____
23. ISOL cond valve leak _____
24. ISOL cond Lo Level (Sources for makeup) _____
25. Rupture in Drywell _____
26. St. leak pipe tunnel _____
27. Turb bldg. Hi Rad (What to check) _____
28. Rx bldg Hi Rad _____
    Rx Deck _____
29. _____ _____

"O" IS OBSERVED. "P" IS PERFORMED.

INSTRUCTOR: _____ Date: _____

A. TITLE:

Course Title: 1980 Operator Requalification

Topic Title: Requalification Classroom Review

Lesson Title: 6-80

B. LESSON OBJECTIVES:

Classroom review of changes will be made to:
Administrative Procedures pertaining to the Operation's Department, Technical Specifications, Operating Procedures, Operation's Memo's, License Event Reports and other documents affecting the trainee in performing his licensed duties.

C. RELATIONSHIP TO COURSE OBJECTIVES:

This classroom review is one of the six (6) required by the Federal Regulations and the Master Training Plan

D. MATERIALS REQUIRED:

Those documents listed under lesson objectives.

E. INTRODUCTION:

1. List the lesson objectives and relationship to the course objectives
2. Class rules: Informal

F. LESSON BODY:

OPERATION'S MEMOS

1.	17-80	Radwaste Tank Room
2.	18-80	Scram Dump Tank Surveillance
3.	19-80	NRC Reporting for IE Bulletin 80-17
4.	21-80	Reactor Recirculating Pump Restart
5.	22-80	Sabotage Surveillance
6.	24-80	Scram Dump Tank Sensors

PRC minutes

6-80 and 8-80

VOLUME 1 Admin Procedures

1.	Rev 201	When procedures are revised only the affected pages will be issued
2.	202	Chapter 15 reporting requirements revised
*3.	203	Chapter 4 Shift turnover is to be done by procedure T1-08
4.	204	Chapter 17 Refers to Tech Spec Tests that are not completed on time
5.	205	Chapter 10 References to SARB and VP of Nuclear Operations is deleted
6.	206	Chapter 5 Minor word changes
*7.	207	Chapter 4 The periodic Test Board is issued and approved in accordance with A.7.3. Method of annual Transfer is included
*8	208	Several Chapters. The major impact is that QA will review all safety related procedures whether they are work activity type or administrative type prior to implementation.

* Affects the operation's department

VOLUME 2 Tech Specs

1. Ammendment 33 Containment spray surveillance requirements extended to each refueling outage not to exceed 18 months for power operated valves and Enclosure High Pressure sensors and Time Delay

VOLUME 3 Operating Procedures

1.	GOP 1 Startup	Rev 7	Test number was changed
2.	SOP 11	Rev 13	Radwaste tank floor not to be used for water storage.
3.	ONP 2.7 Mis Positioned Rod	Rev 4	"A continuous rod drift may occur when foreign material becomes lodged in the collet area which prevents relatching"
4.	ALP 1.4	Rev 11	Drum Safety Valve Leak alarm corrective actions revised to include checking acoustical monitor for indication that a relief valve has opened.

VOLUME 3 Operating Procedures (continued)

5.	ALP 1.16	Rev 1	Relief Valve Monitor alarm corrective action revised to include checking sphere pressure for signs or increase
6.	SOP 26 Fire Protection	Rev 16	A fire brigade of at least 5 members shall be maintained on site at all times. The brigade may be less than minimum for 2 hours if immediate action is taken to restore the brigade to minimum requirements.
7.	SOP 4 Liquid Poison	Rev 3	Valve number changes
8.	SOP 17 Main Steam	Rev 3	Equipment tagging procedures added for the Turbine Bypass Hydraulic Unit
9.	ALP 1.6	Rev 12	Corrective actions revised so that the reactor is scramed and the main steam valve is closed if there is any indication of a cable tray fire
10.	SOP 10 Containment	Rev 7	To insure closure, the sphere supply and exhaust must be throttles to 75^{0} open position (90^{0} full open)
11.	SOP 19 Makeup	Rev 7	Procedure added to receive liquid caustic
12.	SOP 30	Rev 14	Surveillance of Scram Dump Tank vent and drain valves is added
13.	ONP 2.9	Rev 3	Multiple Rod Insert Failure Procedure has been rewritten
14.	ONP 2.31	Rev 6	Immediate operator actions refer to ONP 2.9 if 2 or more rods fail to insert fully
15.	ALP 1.3	Rev 8	Caution: Only one reactor recirc pump may be isolated during power operation
16.	ALP 1.2	Rev 8	Corrective action revised to include dump tank valve surveillance
17.	EMP 3.5A	Rev 2	Reference to SOP 4 Liquid Poison System added and a procedure added for scraming individual rods which did not insert after a scram signal.

VOLUME 18 Training Manual

1.	Rev 26	Chapter 4 for the Operation's Department has been completely rewritten
2.	Rev 27	Chapters 1, 2, 3, 5, 6, 7, 8, 9 Appendix A, G and J have numerous minor revisions

VOLUME 21 Fire Protection

1.	Rev 7	Each Bio-Pak is equipped with a Bio-shield TM Hood
2.	Rev. 8	Appendix H revised to include fires in electrical equipment room or cable penetration areas.
3.	Rev. ,	Fire training responsibility transferred to Property Protection Department
4.	Rev 10	Chapter 2 Permanent fire protection equipment shall not be used for purpose other than fire protection without the approval of the shift supervisors SS card 3 revised to make the SS responsible for fire prevention and protection requirements during activities which put a portion of the fire system out of service or increase the chance of fire. Fire Brigade Leader is to follow the advice of the Property Protection Supervisors if on-site (Card 5).

CPCO Letters (Internal)

1.	May 30, 1980	Sphere Tag Boards
2.	Aug 12, 1980	Telephone Reporting Requirements to NRC

CPCO Letters

1.	June 6, 1980	Annual Facility Change Report
2.	June 20, 1980	Quantitiive Thermal and Stress Analysis of Spent Fuel Pool Structure as a Result of Pool Boiling
3.	June 27, 1980	Proposed Tech Spec Change Request-Fire Protection
4.	July 7, 1980	Tech Spec Change Request-Containment Spray System Surveillance. (Approved)
5.	July 31, 1980	Response to IE Bulletin 80-17
6.	August 8, 1980	Response to Supplement 1 of 80-17
7.	August 11, 1980	Response to Staff Questions on Spent Fuel Pool Area.

NRC Letters

1.	May 28, 1980	IE Information Notice	80-22
2.	June 12, 1980	IE Bulletin	80-14
3.	June 18, 1980	IE Bulletin	80-15
4.	June 20, 1980	IE Circular	80-15
5.	June 24, 1980	IE Circuler	80-14
6.	June 26, 1980	NRC response to Christa-Maria	

G. SUMMARY:

Review the changes pertaining to operations. Minor word changes or typo errors may be designated as such and little or no time for review of the material should be required except to note it has been updated for correction.

H. EXAMINATION:

There is no examination for this lesson

I. INSTRUCTOR's GUIDELINES:

Document attendance on RQ-4 forms and enter dates on the attendance sheet in the front of this manual.

Consumers Power Company — QA 65A — Rev.

Big Rock Point Nuclear Plant

ATTACHMENT 6

DUPLICATE
NOT FOR CLASS SESSION

RECORD OF QA REVIEW FOR LICENSED RO/SRO
and
PROSPECTIVE LICENSEES

Date Issued 07/18/80

Originator M E Schaberg

___ Facility Changes
✓ Procedures Manual Revision
___ Technical Specification Change
___ Operating Incidents
___ Site Emergency Plant
___ Special Operation(s) Test(s) Procedures
___ AO's, UE's, Deviation Reports
___ Plant Review Committee Meeting Minutes
___ Operations Memo #_____
___ Others_____

INFORMATION COPY

Comments and/or Descriptions EMP 3.5A, Rev. 2

NAME	INITIALS	DATE READ
JCAlger		
DCCharbeneau		
LEDarrah		
CADougherty		
MWField		
JDHoron		
DJHorstman		
JRHutchison		
JRJohnston		
DGLaCroix		
DLLeonard		
AALoe		
HNMadison		
WGMerwin		
EESmalley		
DNStaton		
ALThier		
RATitus		
WTrubilowicz		
KGVillermain		

NAME	INITIALS	DATE READ
JPWessel		
WLWhat		
CRAbel	[illegible]	7/21/80
WFBlissett	WFB	7/21/80
PMDonnelly	PMD	8/3/80
RGMay	RGM	8/28/80
EFPeltier	EFP	8/2/80
TKPence	TKP	7/22/80
ACSevener	ACS	9/2/80
CFSonnenberg	CFS	7/22/80
FJValade	F.J.V.	8/24/80
RJAlexander	RJA	9/1/80
MGGenrich	MGG	8/28/80
BCO'Donnell	BCO	8/29/80
SIShirey	SIS	8/27/80
AWisniewski	AJW	8/26/80
VAAvery	VAA	9-6-80
EMcNamara	EMcN	9-8-80
RWDoan (last)	RWD	9/4/80

1. Review of the attached material constitutes your initial exposure. A classroom review will also be held for license holders as per amendment to 10CFR50.54.
2. When completed, file in Training Coordinator Office files. (Operator Licensing Requirement)
3. Use this form only for review of material made necessary by license commitment.

RECORDS CONTROL FORM

Attached, please find revisions/additions to t : Big Rock Point Plant Operating Procedures, Volume 3A/B.

Procedure Number	Revision Number / Date	PRC Log Number
EMP 3.5A	2 07/18/80	835-80

I have received the above mentioned documents, inserted in manual, and destroyed all previous issues.

CORRECTION: Page 1a should be included in the "Insert Pages" section of ONP 2.9. Please remove the current LEP I and replace it with the attached corrected LEP I.

_____
Signature

_____
Date

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10 RWDoan
11 DEDeMoor
12 DPBlanchard
13 JSRang
14 RESchrader
15 CEAxtell
16 JAJohnson
17 TCBordine
18 Science Applications, Inc., CA
19 RBDeWitt, c/o P21-116
20 ARAbbs, P11-420A
21 Engineering
22 REBarnhart
23 RWDoan
24 RWDoan
25 RWDoan
26 RWDoan
27 RWDoan
28 RWDoan
29 RWDoan
30 RWDoan
31 RWDoan/VAAvery
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SCP 26 & ONP 2.16 only, Property Protection Supervisor

Route 2 on QA-05A
QA-05A RWDoan
QA-05A VAAvery
QA-05A EMcNamara
QA-05A FJValade

QA-03

07/18/80