

Facility: Diablo Canyon Power Plant

Scenario No: 1

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 80% power, middle of cycle.

Turnover:

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|--|
| 1 T=3 | | I | Pressurizer Level Channel Failure |
| 2 T=10 | | C | Letdown Isolation Valve Failure |
| 3 T=15 | | N | Place Excess Letdown in Service |
| 4 T=20 | | C/R | B RCP High Vibration Requiring Power Reduction |
| 5 T=30 | | I | A S/G PORV Controller Failure |
| 6 T=40 | | M | B RCP Trip |
| 7 | | C | Automatic Reactor Trip Failure |
| 8 | | M | A S/G Tube Rupture with Stuck Open Safety |
| 9 | | C | C CCP Pump Trip on OC |
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* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 2

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 80% power, middle of cycle.

Turnover: DG 1-2 is OOS for Maintenance. Small leakage thru PORV 8800C—monitoring.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=0 | | N | Shift from CCP 22 to CCP 21 |
| 2 T=5 | | R | Raise Reator Power |
| 3 | | I | Feed Flow Channel Failure C S/G |
| 4 T=20 | | I | B SG Level Channel Failure High |
| 5 T=30 | | I | A S/G PORV Controller Failure |
| 6 T=40 | | M | Seismic Event—Loss of Offsite power |
| 7 | | C | 4160V Bus F lockout |
| 8 | | M | Aux Feedwater 52-HH-8 pump failure—causes Loss of D/G 1-1 |
| 9 | | C | Pressurizer PORV 8800C failure partially open |
| 10 | | C | TDAFP Auto Start Failure—(Given back after reset of trip linkage) |
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* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 3

Op-Test No:

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 100% power, middle of cycle.

Turnover: High Kelp seas w/ high swells

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=0 | | N | Makeup to RWST |
| 2 T=5 | | I | Tave Channel failure Low (loop 1) |
| 3 | | C/R | Screen Wash System screen blkg causes loss of ASW pump; Reduce power to remove unit from service |
| 4 T=20 | | I | VCT Level Channel Failure Hi |
| 5 T= | | M | Hotwell Instrumentation leakage–Loss of feedwater |
| 6 T= | | C | Turbine Auto Trip Failure |
| 7 | | C | 4160V Bus H lockout |
| 8 | | M | TDAFP Trip on loss of steam supply |
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* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 4

Op-Test No:

Examiners:

Operators:

Objectives:

Initial Conditions: 100% power, middle of cycle.

Turnover: B CCP OOS

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=0 | | N | Increase Ltdown flow from 75 to 120 GPM |
| 2 T=5 | | I | Pressurizer Pressure Channel Failure |
| 3 | | C | B Circ. Wtr Pump Trip on OC |
| 4 T=20 | | I | VCT Level Channel Failure Hi |
| 5 T=28 | | C | Loss of Condenser Vacuum due to in leakage |
| 6 T= | | R | Reduce Reactor Power due to Loss of Vacuum |
| 7 | | M | RCS leak-LOCA (Small break ramping to Large break LOCA) |
| 8 | | C | A Ch LOCA Sequencer Failure |
| 9 | | C | CIAS A Ch Actuation Failure |
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* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 5

Op-Test No:

Examiners:

Operators:

Objectives:

Initial Conditions: 45% power, middle of cycle.

Turnover: Directed to increase power to 65%. B FWP is OOS and expected back next shift.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|--|
| 1 T=3 | | N | Place 3 Rd Cond. Pump in service to support power increase. |
| 2 T=10 | | I | Channel C SG#2 Differential Pressure (RCS Flow) transmitter fails low. |
| 3 T=15 | | N/R | Commence power increase through dilution. |
| 4 T=20 | | I | RCS Loop 1 Th instrument fails high |
| 5 T=30 | | C | Failure of power to SV-510B causes Feedwater Regulating FCV-510 to fail closed |
| 6 T=40 | | M | Loss of Coolant Accident (LOCA) (Small break ramping to Large Break LOCA) |
| 7 | | C/R | Three control rods stick partially out on reactor trip |
| 8 | | C | A Train Containment Spray pump trips |
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* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 6

Op-Test No:

Examiners:

Operators:

Objectives:

Initial Conditions: 100% power, middle of cycle.

Turnover: DG 1-1 OOS for maintenance. Crew directed to decrease power to 85% after adjusting SIT tank level into normal band.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | N | Increase SIT A level |
| 2 T=10 | | I | Selected Pressurizer Level Channel fails HI |
| 3 T=15 | | N/R | Commence power decrease through boration |
| 4 T=20 | | I | RCS Loop 2 Tc instrument fails high |
| 5 T=30 | | C | Lockout of 4160V bus G due to OC condition on bus |
| 6 T=40 | | M | HELB outside containment |
| 7 | | C | One ADV fails open after MSIVs close |
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* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 7

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 50% power, middle of cycle, equilibrium xenon.

Turnover: DG 1-1 OOS for maintenance. Main Feedwater Pump 1-1 OOS for maintenance. Crew directed to decrease power to take unit off line for planned outage. Grass fires flaring northeast of plant.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | C | Low Pressure Feedwater Heater () inlet valve fails closed. |
| 2 T=10 | | I | S/G 1-1 level instrument fails High |
| 3 T=15 | | N/R | Commence power decrease through boration |
| 4 T=20 | | I | Turbine Impulse Pressure Xmtr input (PT-) fails low |
| 5 T=30 | | C | Main Feedwater Pump 1-2 trips. |
| 6 T=40 | | M | Loss of Offsite power due to smoke from fires on high power lines |
| 7 | | C | DG 1-2 fails to tie onto the bus due to brkr lockout. |
| 8 | | C | TDAFW fails during startup. |
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* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 8

Op-Test No:

Examiners:

Operators:

Objectives:

Initial Conditions: 50% power, middle of cycle, equilibrium xenon.

Turnover: 10 gpd leak on S/G 1-3. D/G 1-1 is OOS.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|--|
| 1 T=3 | | N/R | Ramp power to 100% following turnover. |
| 2 T=10 | | I | Tc Loop 3 fails high |
| 3 T=15 | | C | 2 Dropped rods when rods drive in due for failed high Tc |
| 4 T=20 | | M/R | 2 Stuck rods on Reactor Trip |
| 5 T=30 | | C | SI Train B failure |
| 6 T=40 | | I | IR NI 36 is undercompensated |
| 7 | | M | PZR Steam space leak develops. |
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* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 9

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 100% power, middle of cycle, equilibrium xenon.

Turnover: .25 gpd leak on S/G 1-3. AFW pp 1-2 is OOS for 24 hrs. DG 1-2 is OOS for 8 hrs
 Severe Weather; high winds 30-40 mph

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | I | VCT Tank LT-114 fails High over 1 minute ramp. |
| 2 T=10 | | C | Failed fuel RCS activity increases |
| 3 T=15 | | C | SG 1-3 tube leak (0 to 20 gpm over 3 minutes) |
| 4 T=20 | | N/R | S/D per T/S 3.4.6.2 |
| 5 T=30 | | I | PZR level Xmtr fails LT-459 |
| 6 T=40 | | M | MSL rupture on SG 1-2 inside Cont. over 4 min. ramp |
| 7 | | C | Auto SI initiation failure Train A/B. |
| 8 | | M | SG 1-3 Tube rupture 20 gpm to 400 gpm) (Insert when crew goes to EOP E-2. |
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* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 10

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 75% power, middle of cycle, equilibrium xenon.

Turnover: Decrease power to 50%, 10 GPD leak on SG 1-3, MFP 1-1 seal water system oscillations, CCW pump 1-2 is OOS.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | N/R | Decrease power to 50%. |
| 2 T=10 | | C | Governor valve #1 LVDT fails closed |
| 3 T=15 | | I | RCS Boration Batch integrator fails during boration |
| 4 T=20 | | C | CCP 1-2 trips on OC; causes 4kV Bus G differential |
| 5 T=30 | | M | RCS leak develops (ramps to 7000 gpm in five minutes) |
| 6 T=30 | | C | Phase A Cont. Isol. Fails to auto actuate |
| 7 | | C | Loss of remaining RHR |
| | | | |
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* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 11

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 75% power, middle of cycle, equilibrium xenon.

Turnover: Ramp to 100%; 20 gpd leak on SG 1-1; AFWP 1-2 OOS; CCP 1-1 OOS

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | N/R | Increase power to 100%. |
| 2 T=10 | | I | SG pressure PT 536A fails high |
| 3 T=15 | | C | Htr Drn pump trips |
| 4 T=20 | | I | LCP Halt Protection Set 1, Rack 1 |
| 5 T=30 | | M | Stm Brk outside Containment |
| 6 T=30 | | C | 4KV bus F Differential |
| 7 | | C | AFWP 1-2 trips on OC 2 PORVs fail closed |
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* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

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|--|--|---------------------------------------|-----------------|
| Facility: <u>DCPP</u> | | Date of Examination: <u>4/10/2000</u> | |
| Exam Level (circle one): RO / SRO(I) / SRO(U) | | Operating Test No.: <u>1</u> | |
| B.1 Control Room Systems | | | |
| System / JPM Title | | Type Code* | Safety Function |
| a. 010 / Depressurize the RCS using Normal Spray LJC-033 | | D,S,L | III |
| b. 062 / Transfer Bus G to Aux. Power from Dsl. Gen. 1-2 LJC-087 | | D,S | VI |
| c. 003 / Start A Reactor Coolant Pump LJC-120 | | D,S,L | IV |
| d. 026 / Align RHR to Containment Spray LJC-045 | | D,A,S | V |
| e. 013 / Manually Isolate Phase A Components Train A & B Failure LJC-026 | | D,A,S | II |
| f. 041 / Initiate a Natural Circulation Cooldown LJC-046 Modify - Fail MSIVs closed requires 10% dumps | | M,A,S,L | IV |
| g. 004 / Establish Emergency Boration LJC-063 | | D,A,S,L | I |
| B.2 Facility Walk-Through | | | |
| a. 004 / Align Charging Pump Suction from RWST LJP-029 | | D,L,R | II |
| b. 064 / Perform Local Start of Diesel Generator LJP-003 - Modify so local alarm "active in test only" after start forces shutdown | | M,A | VI |
| c. 033 / Add. of Hot Water to the Spent Fuel Pool from RCS New Task, OP AP SD-0 Appendix G step 4.2 | | N,L,R | VIII |
| * Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA | | | |

| Facility: <u>DCPP</u> | | Date of Examination: <u>4/10/2000</u> |
|--|------------|---------------------------------------|
| Exam Level (circle one): RO / SRO(I) / SRO(U) | | Operating Test No.: <u>2</u> |
| B.1 Control Room Systems | | |
| System / JPM Title | Type Code* | Safety Function |
| a. 001 / Est Steady State Conditions after a Rod Misalignment LJC-022 | D,S | I |
| b. 006 / Respond to Low Accumulator Pressure LJC-077 | D,S | II |
| c. 035 / Isolate Ruptured Steam Generator 12 LJC-011 Modify- fault TDAFW stm supply valve & LCV for SG | M,A,L,S | IV |
| d. 026 / Secure Containment Spray LJC-080 | D,L,S | V |
| e. 010 / Depressurize the RCS using Normal Spray LJC-033 - Modify - Stick open Loop 1 Pressurizer spray valve | M,A,L,S | III |
| f. 012 / Respond to an ATWS LJC-041 | D,A,S | VII |
| g. 008 / Respond to Loss of CCW to Letdown Heat Exchanger LJC-126 | D,A,S | VIII |
| B.2 Facility Walk-Through | | |
| a. 010 / Transfer PZR Heater Group 13 to Backup Power LJP-079 | D,L | III |
| b. 068 / Isolate Ruptured LHUT New Task OP AP-14 Step 8f. | N,R | IX |
| c. 008 / Crosstie CCW system between Units LJPNRC-2 Repeat from January 1999 SRO Exam | D,R | VIII |
| * Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA | | |

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|--|--|---------------------------------------|-----------------|
| Facility: <u>DCPP</u> | | Date of Examination: <u>4/10/2000</u> | |
| Exam Level (circle one): RO / SRO(I) / SRO(U) | | Operating Test No.: <u>3</u> | |
| B.1 Control Room Systems | | | |
| System / JPM Title | | Type Code* | Safety Function |
| a. 001 / Restore Bank Alignment for a Misaligned Rod LJC-067 | | D,S | I |
| b. 062 / Restoration of Buses after Loss of Offsite Power LJC-210 | | D,S | VI |
| c. 035 / Respond to Steam Generator Tube Failure - AP-3 LJC-121 | | D,S | IV |
| d. 026 / Secure Containment Spray LJC-81 | | D,S,L | V |
| e. 017 / Calculate Subcooled Margin LJC-024 | | D,A,S,L | VII |
| f. 008 / Respond to High CCW system Temperature New Task - OP AP-11, Section A - only 1 ASW pp available | | N,A,S | VIII |
| g. 006 / Transfer to Cold Leg Recirculation LJC-027 - Make faulted at step 6e RHR Pp 2 fails to start | | M,A,S | II |
| B.2 Facility Walk-Through | | | |
| a. 010 / Transfer PZR Heater Group 1-2 to Backup Power LJP- 029 | | D | III |
| b. 064 / Perform Local Start of Diesel Generator LJP-003 - Modify so local alarm "active in test only" after start forces shutdown | | M,A,L | VI |
| c. 035 / Close Steam Generator Isolation Valves Outside Containment LJP 096 | | D,A,L,R | IV |
| * Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA | | | |

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| Facility: <u>DCPP</u> Date of Examination: <u>4/10/2000</u> Examination Level (circle one): RO / SRO Operating Test Number: <u>1</u> | | |
| Administrative Topic/Subject Description | Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions | |
| A.1 | Parameter Verification | G2.1.25 (2.8/3.1) Ability to obtain and interpret station reference materials such as graphs, monographs and tables which contain performance data. JPM - RO/SRO Determine if RIL has been exceeded (STP I-1A Step 14a) |
| | Fuel Handling | G2.1.23 (3.9/4.0) Ability to perform specific system and integrated plant procedures during all modes of plant operation. JPM - SRO/RO Determine Spent Fuel Pool Heat Load/Removal Parameters (OP B-8DS1 Att. 9.3) |
| A.2 | Maintenance | G2.2.17 (2.3/3.5) Knowledge of the process for managing maintenance activities during power operations. JPM - SRO Online Risk assessment (AD7.DC6 ATT. 9.13) |
| | Tagging & Clearances | G2.2.13 (3.6/3.8) Knowledge of tagging and clearance procedures. JPM - RO Review completed clearance. |
| A.3 | Radiation Control | G2.3.2 (2.5/2.9) Knowledge of facility ALARA program. Question - RO/SRO Difference in requirements for entry into High Rad and High-High Rad areas. |
| | Exposure Limits | G2.3.1 (2.6/3.0) Knowledge of 10CFR20 and related facility control requirements. Question - RO/SRO Calculate stay time compared to TEDE |
| A.4 | Emergency Plan | G2.4.41 (2.3/4.1) Knowledge of emergency action thresholds and classifications. JPM - SRO Determine Event Reportability - SGTL - LJC-200 |
| | | G2.4.29 (2.6/4.0) Knowledge of the emergency plan. Question - RO Escort Requirement with an Alert G2.4.39 (3.3/3.1) Knowledge of RO's responsibilities in emergency plan. Question - RO Who can communicate with NRC |

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| Facility: <u>DCPP</u> | | Date of Examination: <u>4/10/2000</u> |
| Examination Level (circle one): RO / SRO | | Operating Test Number: <u>2</u> |
| Administrative Topic/Subject Description | | Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions |
| A.1 | Parameter Verification | G2.1.23 (3.9/4.0) Ability to perform specific system and integrated plant procedures during all modes of plant operation. JPM - SRO/RO Determine Ultimate Heat Sink temperature and determine action (STP I-1A step 39) |
| | Mode Changes | G2.1.30 (3.9/3.4) Ability to locate and operate components, including local controls. JPM -SRO/RO Perform Transfer Switch alignment for common equipment. (OP K10X27 Att. 9.1) |
| A.2 | Maintenance | G2.2.26 (2.5/3.7) Knowledge of refueling administrative requirements. JPM - SRO/RO Perform Outage Safety checklist (AD8.DC55 Att. 7.12) |
| A.3 | Exposure Limits | G2.3.1 (2.6/3.0) Knowledge of 10CFR20 and related facility control requirements. Question - RO/SRO Who can give Emergency Dose Authorization |
| | Overexposure | G2.3.4 (2.5/3.1) Knowledge of radiation exposure limits and contamination control, including permissible levels in excess of those authorized. Question - RO/SRO Determine which individual has suffered an overexposure (RB-2) |
| A.4 | Emergency Plan | G2.4.44 (2.1/4.0) Knowledge of emergency plan protective action recommendations. JPM - SRO Recommend PARS based on accident classification (LJC-192) |
| | | G2.4.29 (2.6/4.0) Knowledge of emergency plan. Question - RO When USCG is notified of Emergency Events G2.4.39 (3.3/3.1) Knowledge of RO's responsibilities in emergency plan implementation. Question - RO Activation of Site Emergency signal |

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| Facility: _____ DCPD _____ | | Date of Examination: <u>4/10/2000</u> |
| Examination Level (circle one): RO / SRO | | Operating Test Number: <u>3</u> |
| Administrative Topic/Subject Description | | Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions |
| A.1 | Parameter Verification | G2.1.33 (3.4/4.0) Ability to recognize indications for system operating parameters which are entry-level conditions for Technical Specifications. JPM - SRO/RO Determine if AFD is within Tech Spec Limits (STP I-1C Step 1) |
| | Mode Change | G2.1.29 (3.4/3.3) Knowledge of how to conduct and verify valve lineups. JPM - SRO/RO Performance of sealed valve checklist (OP K10-A1) |
| A.2 | Maintenance | G2.2.20 (2.2/3.3) Knowledge of process for managing troubleshooting activities. JPM - SRO Review AP-5 Bistable Trip Authorization form -Faulted - (AP-5 Att. 4.2) |
| | Tagging & Clearances | G2.2.13 (3.6/3.8) Knowledge of tagging and clearance procedures. JPM - RO Review completed clearance. |
| A.3 | Exposure Limits | G2.3.4 (2.5/3.1) Knowledge of radiation exposure limits and contamination control, including permissible levels in excess of those authorized. Question - RO/SRO Perform Dose calculation based on dose history and expected stay time in High radiation area |
| | Radiation Control | G2.3.2 (2.5/2.9) Knowledge of facility ALARA program. Question - RO/SRO Posting requirements when Radiological conditions change. |
| A.4 | Emergency Plan | G2.4.41 (2.3/4.1) Knowledge of emergency action thresholds and classifications. JPM - SRO Perform Off-site Dose Assessment - GDT rupture (LJC-151) |
| | | G2.4.42 (2.3/3.7) Knowledge of emergency response facilities. Question - RO Lowest event classification for OSC activation G.2.4.29 (2.6/4.0) Knowledge of Emergency Plan Question - RO Time to notify the NRC of classification change |

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| Facility: <u>DCPP</u> | | Date of Examination: <u>4/10/2000</u> | |
| Exam Level (circle one): RO / SRO(I) / SRO(U) | | Operating Test No.: <u>1</u> | |
| B.1 Control Room Systems | | | |
| System / JPM Title | | Type Code* | Safety Function |
| a. 010 / Depressurize the RCS using Normal Spray LJC-033 | | D,S,L | III |
| b. 062 / Transfer Bus G to Aux. Power from Dsl. Gen. 1-2 LJC-087 | | D,S | VI |
| c. 003 / Start A Reactor Coolant Pump LJC-120 | | D,S,L | IV |
| d. 026 / Align RHR to Containment Spray LJC-045 | | D,A,S | V |
| e. 013 / Manually Isolate Phase A Components Train A & B Failure LJC-026 | | D,A,S | II |
| f. 041 / Initiate a Natural Circulation Cooldown LJC-046 Modify - Fail MSIVs closed requires 10% dumps | | M,A,S,L | IV |
| g. 004 / Establish Emergency Boration LJC-063 | | D,A,S,L | I |
| B.2 Facility Walk-Through | | | |
| a. 004 / Align Charging Pump Suction from RWST LJP-029 | | D,L,R | II |
| b. 064 / Perform Local Start of Diesel Generator LJP-003 - Modify so local alarm "active in test only" after start forces shutdown | | M,A | VI |
| c. 033 / Add. of Hot Water to the Spent Fuel Pool from RCS New Task, OP AP SD-0 Appendix G step 4.2 | | N,L,R | VIII |
| * Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA | | | |

| Facility: <u>DCPP</u> | | Date of Examination: <u>4/10/2000</u> |
|--|------------|---------------------------------------|
| Exam Level (circle one): RO / SRO(I) / SRO(U) | | Operating Test No.: <u>2</u> |
| B.1 Control Room Systems | | |
| System / JPM Title | Type Code* | Safety Function |
| a. 001 / Est Steady State Conditions after a Rod Misalignment LJC-022 | D,S | I |
| b. 006 / Respond to Low Accumulator Pressure LJC-077 | D,S | II |
| c. 035 / Isolate Ruptured Steam Generator 12 LJC-011 Modify- fault TDAFW stm supply valve & LCV for SG | M,A,L,S | IV |
| d. 026 / Secure Containment Spray LJC-080 | D,L,S | V |
| e. 010 / Depressurize the RCS using Normal Spray LJC-033 - Modify - Stick open Loop 1 Pressurizer spray valve | M,A,L,S | III |
| f. 012 / Respond to an ATWS LJC-041 | D,A,S | VII |
| g. 008 / Respond to Loss of CCW to Letdown Heat Exchanger LJC-126 | D,A,S | VIII |
| B.2 Facility Walk-Through | | |
| a. 010 / Transfer PZR Heater Group 13 to Backup Power LJP-079 | D,L | III |
| b. 068 / Isolate Ruptured LHUT New Task OP AP-14 Step 8f. | N,R | IX |
| c. 008 / Crosstie CCW system between Units LJPNRC-2 Repeat from January 1999 SRO Exam | D,R | VIII |
| * Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA | | |

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|--|--|---------------------------------------|-----------------|
| Facility: <u>DCPP</u> | | Date of Examination: <u>4/10/2000</u> | |
| Exam Level (circle one): RO / SRO(I) / SRO(U) | | Operating Test No.: <u>3</u> | |
| B.1 Control Room Systems | | | |
| System / JPM Title | | Type Code* | Safety Function |
| a. 001 / Restore Bank Alignment for a Misaligned Rod LJC-067 | | D,S | I |
| b. 062 / Restoration of Buses after Loss of Offsite Power LJC-210 | | D,S | VI |
| c. 035 / Respond to Steam Generator Tube Failure - AP-3 LJC-121 | | D,S | IV |
| d. 026 / Secure Containment Spray LJC-81 | | D,S,L | V |
| e. 017 / Calculate Subcooled Margin LJC-024 | | D,A,S,L | VII |
| f. 008 / Respond to High CCW system Temperature New Task - OP AP-11, Section A - only 1 ASW pp available | | N,A,S | VIII |
| g. 006 / Transfer to Cold Leg Recirculation LJC-027 - Make faulted at step 6e RHR Pp 2 fails to start | | M,A,S | II |
| B.2 Facility Walk-Through | | | |
| a. 010 / Transfer PZR Heater Group 1-2 to Backup Power LJP- 029 | | D | III |
| b. 064 / Perform Local Start of Diesel Generator LJP-003 - Modify so local alarm "active in test only" after start forces shutdown | | M,A,L | VI |
| c. 035 / Close Steam Generator Isolation Valves Outside Containment LJP 096 | | D,A,L,R | IV |
| * Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA | | | |

Facility: Diablo Canyon Power Plant

Scenario No: 1

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 80% power, middle of cycle.

Turnover:

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|--|
| 1 T=3 | | I | Pressurizer Level Channel Failure |
| 2 T=10 | | C | Letdown Isolation Valve Failure |
| 3 T=15 | | N | Place Excess Letdown in Service |
| 4 T=20 | | C/R | B RCP High Vibration Requiring Power Reduction |
| 5 T=30 | | I | A S/G PORV Controller Failure |
| 6 T=40 | | M | B RCP Trip |
| 7 | | C | Automatic Reactor Trip Failure |
| 8 | | M | A S/G Tube Rupture with Stuck Open Safety |
| 9 | | C | C CCP Pump Trip on OC |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 2

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 80% power, middle of cycle.

Turnover: DG 1-2 is OOS for Maintenance. Small leakage thru PORV 8800C—monitoring.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=0 | | N | Shift from CCP 22 to CCP 21 |
| 2 T=5 | | R | Raise Reator Power |
| 3 | | I | Feed Flow Channel Failure C S/G |
| 4 T=20 | | I | B SG Level Channel Failure High |
| 5 T=30 | | I | A S/G PORV Controller Failure |
| 6 T=40 | | M | Seismic Event—Loss of Offsite power |
| 7 | | C | 4160V Bus F lockout |
| 8 | | M | Aux Feedwater 52-HH-8 pump failure—causes Loss of D/G 1-1 |
| 9 | | C | Pressurizer PORV 8800C failure partially open |
| 10 | | C | TDAFP Auto Start Failure—(Given back after reset of trip linkage) |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 3

Op-Test No:

Examiners:

Operators:

Objectives:

Initial Conditions: 100% power, middle of cycle.

Turnover: High Kelp seas w/ high swells

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=0 | | N | Makeup to RWST |
| 2 T=5 | | I | Tave Channel failure Low (loop 1) |
| 3 | | C/R | Screen Wash System screen blkg causes loss of ASW pump; Reduce power to remove unit from service |
| 4 T=20 | | I | VCT Level Channel Failure Hi |
| 5 T= | | M | Hotwell Instrumentation leakage–Loss of feedwater |
| 6 T= | | C | Turbine Auto Trip Failure |
| 7 | | C | 4160V Bus H lockout |
| 8 | | M | TDAFP Trip on loss of steam supply |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 4

Op-Test No:

Examiners:

Operators:

Objectives:

Initial Conditions: 100% power, middle of cycle.

Turnover: B CCP OOS

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=0 | | N | Increase Ltdown flow from 75 to 120 GPM |
| 2 T=5 | | I | Pressurizer Pressure Channel Failure |
| 3 | | C | B Circ. Wtr Pump Trip on OC |
| 4 T=20 | | I | VCT Level Channel Failure Hi |
| 5 T=28 | | C | Loss of Condenser Vacuum due to in leakage |
| 6 T= | | R | Reduce Reactor Power due to Loss of Vacuum |
| 7 | | M | RCS leak-LOCA (Small break ramping to Large break LOCA) |
| 8 | | C | A Ch LOCA Sequencer Failure |
| 9 | | C | CIAS A Ch Actuation Failure |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 5

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 45% power, middle of cycle.

Turnover: Directed to increase power to 65%. B FWP is OOS and expected back next shift.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|--|
| 1 T=3 | | N | Place 3 Rd Cond. Pump in service to support power increase. |
| 2 T=10 | | I | Channel C SG#2 Differential Pressure (RCS Flow) transmitter fails low. |
| 3 T=15 | | N/R | Commence power increase through dilution. |
| 4 T=20 | | I | RCS Loop 1 Th instrument fails high |
| 5 T=30 | | C | Failure of power to SV-510B causes Feedwater Regulating FCV-510 to fail closed |
| 6 T=40 | | M | Loss of Coolant Accident (LOCA) (Small break ramping to Large Break LOCA) |
| 7 | | C/R | Three control rods stick partially out on reactor trip |
| 8 | | C | A Train Containment Spray pump trips |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 6

Op-Test No:

Examiners:

Operators:

Objectives:

Initial Conditions: 100% power, middle of cycle.

Turnover: DG 1-1 OOS for maintenance. Crew directed to decrease power to 85% after adjusting SIT tank level into normal band.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | N | Increase SIT A level |
| 2 T=10 | | I | Selected Pressurizer Level Channel fails HI |
| 3 T=15 | | N/R | Commence power decrease through boration |
| 4 T=20 | | I | RCS Loop 2 Tc instrument fails high |
| 5 T=30 | | C | Lockout of 4160V bus G due to OC condition on bus |
| 6 T=40 | | M | HELB outside containment |
| 7 | | C | One ADV fails open after MSIVs close |
| | | | |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 7

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 50% power, middle of cycle, equilibrium xenon.

Turnover: DG 1-1 OOS for maintenance. Main Feedwater Pump 1-1 OOS for maintenance. Crew directed to decrease power to take unit off line for planned outage. Grass fires flaring northeast of plant.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | C | Low Pressure Feedwater Heater () inlet valve fails closed. |
| 2 T=10 | | I | S/G 1-1 level instrument fails High |
| 3 T=15 | | N/R | Commence power decrease through boration |
| 4 T=20 | | I | Turbine Impulse Pressure Xmtr input (PT-) fails low |
| 5 T=30 | | C | Main Feedwater Pump 1-2 trips. |
| 6 T=40 | | M | Loss of Offsite power due to smoke from fires on high power lines |
| 7 | | C | DG 1-2 fails to tie onto the bus due to brkr lockout. |
| 8 | | C | TDAFW fails during startup. |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 8

Op-Test No:

Examiners:

Operators:

Objectives:

Initial Conditions: 50% power, middle of cycle, equilibrium xenon.

Turnover: 10 gpd leak on S/G 1-3. D/G 1-1 is OOS.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|--|
| 1 T=3 | | N/R | Ramp power to 100% following turnover. |
| 2 T=10 | | I | Tc Loop 3 fails high |
| 3 T=15 | | C | 2 Dropped rods when rods drive in due for failed high Tc |
| 4 T=20 | | M/R | 2 Stuck rods on Reactor Trip |
| 5 T=30 | | C | SI Train B failure |
| 6 T=40 | | I | IR NI 36 is undercompensated |
| 7 | | M | PZR Steam space leak develops. |
| | | | |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 9

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 100% power, middle of cycle, equilibrium xenon.

Turnover: .25 gpd leak on S/G 1-3. AFW pp 1-2 is OOS for 24 hrs. DG 1-2 is OOS for 8 hrs
Severe Weather; high winds 30-40 mph

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | I | VCT Tank LT-114 fails High over 1 minute ramp. |
| 2 T=10 | | C | Failed fuel RCS activity increases |
| 3 T=15 | | C | SG 1-3 tube leak (0 to 20 gpm over 3 minutes) |
| 4 T=20 | | N/R | S/D per T/S 3.4.6.2 |
| 5 T=30 | | I | PZR level Xmtr fails LT-459 |
| 6 T=40 | | M | MSL rupture on SG 1-2 inside Cont. over 4 min. ramp |
| 7 | | C | Auto SI initiation failure Train A/B. |
| 8 | | M | SG 1-3 Tube rupture 20 gpm to 400 gpm) (Insert when crew goes to EOP E-2. |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 10

Op-Test No:

Examiners:

Operators:

Objectives:

Initial Conditions: 75% power, middle of cycle, equilibrium xenon.

Turnover: Decrease power to 50%, 10 GPD leak on SG 1-3, MFP 1-1 seal water system oscillations, CCW pump 1-2 is OOS.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | N/R | Decrease power to 50%. |
| 2 T=10 | | C | Governor valve #1 LVDT fails closed |
| 3 T=15 | | I | RCS Boration Batch integrator fails during boration |
| 4 T=20 | | C | CCP 1-2 trips on OC; causes 4kV Bus G differential |
| 5 T=30 | | M | RCS leak develops (ramps to 7000 gpm in five minutes) |
| 6 T=30 | | C | Phase A Cont. Isol. Fails to auto actuate |
| 7 | | C | Loss of remaining RHR |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 11

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 75% power, middle of cycle, equilibrium xenon.

Turnover: Ramp to 100%; 20 gpd leak on SG 1-1; AFWP 1-2 OOS; CCP 1-1 OOS

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | N/R | Increase power to 100%. |
| 2 T=10 | | I | SG pressure PT 536A fails high |
| 3 T=15 | | C | Htr Drn pump trips |
| 4 T=20 | | I | LCP Halt Protection Set 1, Rack 1 |
| 5 T=30 | | M | Stm Brk outside Containment |
| 6 T=30 | | C | 4KV bus F Differential |
| 7 | | C | AFWP 1-2 trips on OC 2 PORVs fail closed |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

| | | |
|---|--|---|
| Facility: <u>DCPP</u> Date of Examination: <u>4/10/2000</u> Examination Level (circle one): RO / SRO Operating Test Number: <u>1</u> | | |
| Administrative Topic/Subject Description | Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions | |
| A.1 | Parameter Verification | G2.1.25 (2.8/3.1) Ability to obtain and interpret station reference materials such as graphs, monographs and tables which contain performance data. JPM - RO/SRO Determine if RIL has been exceeded (STP I-1A Step 14a) |
| | Fuel Handling | G2.1.23 (3.9/4.0) Ability to perform specific system and integrated plant procedures during all modes of plant operation. JPM - SRO/RO Determine Spent Fuel Pool Heat Load/Removal Parameters (OP B-8DS1 Att. 9.3) |
| A.2 | Maintenance | G2.2.17 (2.3/3.5) Knowledge of the process for managing maintenance activities during power operations. JPM - SRO Online Risk assessment (AD7.DC6 ATT. 9.13) |
| | Tagging & Clearances | G2.2.13 (3.6/3.8) Knowledge of tagging and clearance procedures. JPM - RO Review completed clearance. |
| A.3 | Radiation Control | G2.3.2 (2.5/2.9) Knowledge of facility ALARA program. Question - RO/SRO Difference in requirements for entry into High Rad and High-High Rad areas. |
| | Exposure Limits | G2.3.1 (2.6/3.0) Knowledge of 10CFR20 and related facility control requirements. Question - RO/SRO Calculate stay time compared to TEDE |
| A.4 | Emergency Plan | G2.4.41 (2.3/4.1) Knowledge of emergency action thresholds and classifications. JPM - SRO Determine Event Reportability - SGTL - LJC-200 |
| | | G2.4.29 (2.6/4.0) Knowledge of the emergency plan. Question - RO Escort Requirement with an Alert G2.4.39 (3.3/3.1) Knowledge of RO's responsibilities in emergency plan. Question - RO Who can communicate with NRC |

| | | |
|--|------------------------|--|
| Facility: <u>DCPP</u> | | Date of Examination: <u>4/10/2000</u> |
| Examination Level (circle one): RO / SRO | | Operating Test Number: <u>2</u> |
| Administrative Topic/Subject Description | | Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions |
| A.1 | Parameter Verification | G2.1.23 (3.9/4.0) Ability to perform specific system and integrated plant procedures during all modes of plant operation. JPM - SRO/RO Determine Ultimate Heat Sink temperature and determine action (STP I-1A step 39) |
| | Mode Changes | G2.1.30 (3.9/3.4) Ability to locate and operate components, including local controls. JPM -SRO/RO Perform Transfer Switch alignment for common equipment. (OP K10X27 Att. 9.1) |
| A.2 | Maintenance | G2.2.26 (2.5/3.7) Knowledge of refueling administrative requirements. JPM - SRO/RO Perform Outage Safety checklist (AD8.DC55 Att. 7.12) |
| A.3 | Exposure Limits | G2.3.1 (2.6/3.0) Knowledge of 10CFR20 and related facility control requirements. Question - RO/SRO Who can give Emergency Dose Authorization |
| | Overexposure | G2.3.4 (2.5/3.1) Knowledge of radiation exposure limits and contamination control, including permissible levels in excess of those authorized. Question - RO/SRO Determine which individual has suffered an overexposure (RB-2) |
| A.4 | Emergency Plan | G2.4.44 (2.1/4.0) Knowledge of emergency plan protective action recommendations. JPM - SRO Recommend PARS based on accident classification (LJC-192) |
| | | G2.4.29 (2.6/4.0) Knowledge of emergency plan. Question - RO When USCG is notified of Emergency Events G2.4.39 (3.3/3.1) Knowledge of RO's responsibilities in emergency plan implementation. Question - RO Activation of Site Emergency signal |

| | | |
|--|------------------------|---|
| Facility: _____ DCPD _____ | | Date of Examination: <u>4/10/2000</u> |
| Examination Level (circle one): RO / SRO | | Operating Test Number: <u>3</u> |
| Administrative Topic/Subject Description | | Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions |
| A.1 | Parameter Verification | G2.1.33 (3.4/4.0) Ability to recognize indications for system operating parameters which are entry-level conditions for Technical Specifications. JPM - SRO/RO Determine if AFD is within Tech Spec Limits (STP I-1C Step 1) |
| | Mode Change | G2.1.29 (3.4/3.3) Knowledge of how to conduct and verify valve lineups. JPM - SRO/RO Performance of sealed valve checklist (OP K10-A1) |
| A.2 | Maintenance | G2.2.20 (2.2/3.3) Knowledge of process for managing troubleshooting activities. JPM - SRO Review AP-5 Bistable Trip Authorization form -Faulted - (AP-5 Att. 4.2) |
| | Tagging & Clearances | G2.2.13 (3.6/3.8) Knowledge of tagging and clearance procedures. JPM - RO Review completed clearance. |
| A.3 | Exposure Limits | G2.3.4 (2.5/3.1) Knowledge of radiation exposure limits and contamination control, including permissible levels in excess of those authorized. Question - RO/SRO Perform Dose calculation based on dose history and expected stay time in High radiation area |
| | Radiation Control | G2.3.2 (2.5/2.9) Knowledge of facility ALARA program. Question - RO/SRO Posting requirements when Radiological conditions change. |
| A.4 | Emergency Plan | G2.4.41 (2.3/4.1) Knowledge of emergency action thresholds and classifications. JPM - SRO Perform Off-site Dose Assessment - GDT rupture (LJC-151) |
| | | G2.4.42 (2.3/3.7) Knowledge of emergency response facilities. Question - RO Lowest event classification for OSC activation G.2.4.29 (2.6/4.0) Knowledge of Emergency Plan Question - RO Time to notify the NRC of classification change |

| Facility: <u>DCPP</u> | | Date of Examination: <u>4/10/2000</u> |
|--|------------|---------------------------------------|
| Exam Level (circle one): RO / SRO(I) / SRO(U) | | Operating Test No.: <u>1</u> |
| B.1 Control Room Systems | | |
| System / JPM Title | Type Code* | Safety Function |
| a. 010 / Depressurize the RCS using Normal Spray LJC-033 | D,S,L | III |
| b. 062 / Transfer Bus G to Aux. Power from Dsl. Gen. 1-2 LJC-087 | D,S | VI |
| c. 003 / Start A Reactor Coolant Pump LJC-120 | D,S,L | IV |
| d. 026 / Align RHR to Containment Spray LJC-045 | D,A,S | V |
| e. 013 / Manually Isolate Phase A Components Train A & B Failure LJC-026 | D,A,S | II |
| f. 041 / Initiate a Natural Circulation Cooldown LJC-046 Modify - Fail MSIVs closed requires 10% dumps | M,A,S,L | IV |
| g. 004 / Establish Emergency Boration LJC-063 | D,A,S,L | I |
| B.2 Facility Walk-Through | | |
| a. 004 / Align Charging Pump Suction from RWST LJP-029 | D,L,R | II |
| b. 064 / Perform Local Start of Diesel Generator LJP-003 - Modify so local alarm "active in test only" after start forces shutdown | M,A | VI |
| c. 033 / Add. of Hot Water to the Spent Fuel Pool from RCS New Task, OP AP SD-0 Appendix G step 4.2 | N,L,R | VIII |
| * Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA | | |

| Facility: <u>DCPP</u> | | Date of Examination: <u>4/10/2000</u> |
|--|------------|---------------------------------------|
| Exam Level (circle one): RO / SRO(I) / SRO(U) | | Operating Test No.: <u>2</u> |
| B.1 Control Room Systems | | |
| System / JPM Title | Type Code* | Safety Function |
| a. 001 / Est Steady State Conditions after a Rod Misalignment LJC-022 | D,S | I |
| b. 006 / Respond to Low Accumulator Pressure LJC-077 | D,S | II |
| c. 035 / Isolate Ruptured Steam Generator 12 LJC-011 Modify- fault TDAFW stm supply valve & LCV for SG | M,A,L,S | IV |
| d. 026 / Secure Containment Spray LJC-080 | D,L,S | V |
| e. 010 / Depressurize the RCS using Normal Spray LJC-033 - Modify - Stick open Loop 1 Pressurizer spray valve | M,A,L,S | III |
| f. 012 / Respond to an ATWS LJC-041 | D,A,S | VII |
| g. 008 / Respond to Loss of CCW to Letdown Heat Exchanger LJC-126 | D,A,S | VIII |
| B.2 Facility Walk-Through | | |
| a. 010 / Transfer PZR Heater Group 13 to Backup Power LJP-079 | D,L | III |
| b. 068 / Isolate Ruptured LHUT New Task OP AP-14 Step 8f. | N,R | IX |
| c. 008 / Crosstie CCW system between Units LJPNRC-2 Repeat from January 1999 SRO Exam | D,R | VIII |
| * Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA | | |

| | | | |
|--|--|---------------------------------------|-----------------|
| Facility: <u>DCPP</u> | | Date of Examination: <u>4/10/2000</u> | |
| Exam Level (circle one): RO / SRO(I) / SRO(U) | | Operating Test No.: <u>3</u> | |
| B.1 Control Room Systems | | | |
| System / JPM Title | | Type Code* | Safety Function |
| a. 001 / Restore Bank Alignment for a Misaligned Rod LJC-067 | | D,S | I |
| b. 062 / Restoration of Buses after Loss of Offsite Power LJC-210 | | D,S | VI |
| c. 035 / Respond to Steam Generator Tube Failure - AP-3 LJC-121 | | D,S | IV |
| d. 026 / Secure Containment Spray LJC-81 | | D,S,L | V |
| e. 017 / Calculate Subcooled Margin LJC-024 | | D,A,S,L | VII |
| f. 008 / Respond to High CCW system Temperature New Task - OP AP-11, Section A - only 1 ASW pp available | | N,A,S | VIII |
| g. 006 / Transfer to Cold Leg Recirculation LJC-027 - Make faulted at step 6e RHR Pp 2 fails to start | | M,A,S | II |
| B.2 Facility Walk-Through | | | |
| a. 010 / Transfer PZR Heater Group 1-2 to Backup Power LJP- 029 | | D | III |
| b. 064 / Perform Local Start of Diesel Generator LJP-003 - Modify so local alarm "active in test only" after start forces shutdown | | M,A,L | VI |
| c. 035 / Close Steam Generator Isolation Valves Outside Containment LJP 096 | | D,A,L,R | IV |
| * Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA | | | |

Facility: Diablo Canyon Power Plant

Scenario No: 1

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 80% power, middle of cycle.

Turnover:

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|--|
| 1 T=3 | | I | Pressurizer Level Channel Failure |
| 2 T=10 | | C | Letdown Isolation Valve Failure |
| 3 T=15 | | N | Place Excess Letdown in Service |
| 4 T=20 | | C/R | B RCP High Vibration Requiring Power Reduction |
| 5 T=30 | | I | A S/G PORV Controller Failure |
| 6 T=40 | | M | B RCP Trip |
| 7 | | C | Automatic Reactor Trip Failure |
| 8 | | M | A S/G Tube Rupture with Stuck Open Safety |
| 9 | | C | C CCP Pump Trip on OC |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 2

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 80% power, middle of cycle.

Turnover: DG 1-2 is OOS for Maintenance. Small leakage thru PORV 8800C—monitoring.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=0 | | N | Shift from CCP 22 to CCP 21 |
| 2 T=5 | | R | Raise Reator Power |
| 3 | | I | Feed Flow Channel Failure C S/G |
| 4 T=20 | | I | B SG Level Channel Failure High |
| 5 T=30 | | I | A S/G PORV Controller Failure |
| 6 T=40 | | M | Seismic Event—Loss of Offsite power |
| 7 | | C | 4160V Bus F lockout |
| 8 | | M | Aux Feedwater 52-HH-8 pump failure—causes Loss of D/G 1-1 |
| 9 | | C | Pressurizer PORV 8800C failure partially open |
| 10 | | C | TDAFP Auto Start Failure—(Given back after reset of trip linkage) |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 3

Op-Test No:

Examiners:

Operators:

Objectives:

Initial Conditions: 100% power, middle of cycle.

Turnover: High Kelp seas w/ high swells

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=0 | | N | Makeup to RWST |
| 2 T=5 | | I | Tave Channel failure Low (loop 1) |
| 3 | | C/R | Screen Wash System screen blkg causes loss of ASW pump; Reduce power to remove unit from service |
| 4 T=20 | | I | VCT Level Channel Failure Hi |
| 5 T= | | M | Hotwell Instrumentation leakage–Loss of feedwater |
| 6 T= | | C | Turbine Auto Trip Failure |
| 7 | | C | 4160V Bus H lockout |
| 8 | | M | TDAFP Trip on loss of steam supply |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 4

Op-Test No:

Examiners:

Operators:

Objectives:

Initial Conditions: 100% power, middle of cycle.

Turnover: B CCP OOS

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=0 | | N | Increase Ltdown flow from 75 to 120 GPM |
| 2 T=5 | | I | Pressurizer Pressure Channel Failure |
| 3 | | C | B Circ. Wtr Pump Trip on OC |
| 4 T=20 | | I | VCT Level Channel Failure Hi |
| 5 T=28 | | C | Loss of Condenser Vacuum due to in leakage |
| 6 T= | | R | Reduce Reactor Power due to Loss of Vacuum |
| 7 | | M | RCS leak-LOCA (Small break ramping to Large break LOCA) |
| 8 | | C | A Ch LOCA Sequencer Failure |
| 9 | | C | CIAS A Ch Actuation Failure |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 5

Op-Test No:

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 45% power, middle of cycle.

Turnover: Directed to increase power to 65%. B FWP is OOS and expected back next shift.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|--|
| 1 T=3 | | N | Place 3 rd Cond. Pump in service to support power increase. |
| 2 T=10 | | I | Channel C SG#2 Differential Pressure (RCS Flow) transmitter fails low. |
| 3 T=15 | | N/R | Commence power increase through dilution. |
| 4 T=20 | | I | RCS Loop 1 Th instrument fails high |
| 5 T=30 | | C | Failure of power to SV-510B causes Feedwater Regulating FCV-510 to fail closed |
| 6 T=40 | | M | Loss of Coolant Accident (LOCA) (Small break ramping to Large Break LOCA) |
| 7 | | C/R | Three control rods stick partially out on reactor trip |
| 8 | | C | A Train Containment Spray pump trips |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 6

Op-Test No:

Examiners:

Operators:

Objectives:

Initial Conditions: 100% power, middle of cycle.

Turnover: DG 1-1 OOS for maintenance. Crew directed to decrease power to 85% after adjusting SIT tank level into normal band.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | N | Increase SIT A level |
| 2 T=10 | | I | Selected Pressurizer Level Channel fails HI |
| 3 T=15 | | N/R | Commence power decrease through boration |
| 4 T=20 | | I | RCS Loop 2 Tc instrument fails high |
| 5 T=30 | | C | Lockout of 4160V bus G due to OC condition on bus |
| 6 T=40 | | M | HELB outside containment |
| 7 | | C | One ADV fails open after MSIVs close |
| | | | |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 7

Op-Test No:

Examiners:

Operators:

Objectives:

Initial Conditions: 50% power, middle of cycle, equilibrium xenon.

Turnover: DG 1-1 OOS for maintenance. Main Feedwater Pump 1-1 OOS for maintenance.
Crew directed to decrease power to take unit off line for planned outage. Grass fires
flaring northeast of plant.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | C | Low Pressure Feedwater Heater () inlet valve fails closed. |
| 2 T=10 | | I | S/G 1-1 level instrument fails High |
| 3 T=15 | | N/R | Commence power decrease through boration |
| 4 T=20 | | I | Turbine Impulse Pressure Xmtr input (PT-) fails low |
| 5 T=30 | | C | Main Feedwater Pump 1-2 trips. |
| 6 T=40 | | M | Loss of Offsite power due to smoke from fires on high power lines |
| 7 | | C | DG 1-2 fails to tie onto the bus due to brkr lockout. |
| 8 | | C | TDAFW fails during startup. |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 8

Op-Test No:

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 50% power, middle of cycle, equilibrium xenon.

Turnover: 10 gpd leak on S/G 1-3. D/G 1-1 is OOS.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|--|
| 1 T=3 | | N/R | Ramp power to 100% following turnover. |
| 2 T=10 | | I | Tc Loop 3 fails high |
| 3 T=15 | | C | 2 Dropped rods when rods drive in due for failed high Tc |
| 4 T=20 | | M/R | 2 Stuck rods on Reactor Trip |
| 5 T=30 | | C | SI Train B failure |
| 6 T=40 | | I | IR NI 36 is undercompensated |
| 7 | | M | PZR Steam space leak develops. |
| | | | |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 9

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 100% power, middle of cycle, equilibrium xenon.

Turnover: .25 gpd leak on S/G 1-3. AFW pp 1-2 is OOS for 24 hrs. DG 1-2 is OOS for 8 hrs
Severe Weather; high winds 30-40 mph

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | I | VCT Tank LT-114 fails High over 1 minute ramp. |
| 2 T=10 | | C | Failed fuel RCS activity increases |
| 3 T=15 | | C | SG 1-3 tube leak (0 to 20 gpm over 3 minutes) |
| 4 T=20 | | N/R | S/D per T/S 3.4.6.2 |
| 5 T=30 | | I | PZR level Xmtr fails LT-459 |
| 6 T=40 | | M | MSL rupture on SG 1-2 inside Cont. over 4 min. ramp |
| 7 | | C | Auto SI initiation failure Train A/B. |
| 8 | | M | SG 1-3 Tube rupture 20 gpm to 400 gpm) (Insert when crew goes to EOP E-2. |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 10

Op-Test No:

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 75% power, middle of cycle, equilibrium xenon.

Turnover: Decrease power to 50%, 10 GPD leak on SG 1-3, MFP 1-1 seal water system oscillations, CCW pump 1-2 is OOS.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | N/R | Decrease power to 50%. |
| 2 T=10 | | C | Governor valve #1 LVDT fails closed |
| 3 T=15 | | I | RCS Boration Batch integrator fails during boration |
| 4 T=20 | | C | CCP 1-2 trips on OC; causes 4kV Bus G differential |
| 5 T=30 | | M | RCS leak develops (ramps to 7000 gpm in five minutes) |
| 6 T=30 | | C | Phase A Cont. Isol. Fails to auto actuate |
| 7 | | C | Loss of remaining RHR |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 11

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 75% power, middle of cycle, equilibrium xenon.

Turnover: Ramp to 100%; 20 gpd leak on SG 1-1; AFWP 1-2 OOS; CCP 1-1 OOS

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | N/R | Increase power to 100%. |
| 2 T=10 | | I | SG pressure PT 536A fails high |
| 3 T=15 | | C | Htr Drn pump trips |
| 4 T=20 | | I | LCP Halt Protection Set 1, Rack 1 |
| 5 T=30 | | M | Stm Brk outside Containment |
| 6 T=30 | | C | 4KV bus F Differential |
| 7 | | C | AFWP 1-2 trips on OC 2 PORVs fail closed |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 1

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 80% power, middle of cycle.

Turnover:

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|--|
| 1 T=3 | | I | Pressurizer Level Channel Failure |
| 2 T=10 | | C | Letdown Isolation Valve Failure |
| 3 T=15 | | N | Place Excess Letdown in Service |
| 4 T=20 | | C/R | B RCP High Vibration Requiring Power Reduction |
| 5 T=30 | | I | A S/G PORV Controller Failure |
| 6 T=40 | | M | B RCP Trip |
| 7 | | C | Automatic Reactor Trip Failure |
| 8 | | M | A S/G Tube Rupture with Stuck Open Safety |
| 9 | | C | C CCP Pump Trip on OC |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 2

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 80% power, middle of cycle.

Turnover: DG 1-2 is OOS for Maintenance. Small leakage thru PORV 8800C—monitoring.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=0 | | N | Shift from CCP 22 to CCP 21 |
| 2 T=5 | | R | Raise Reator Power |
| 3 | | I | Feed Flow Channel Failure C S/G |
| 4 T=20 | | I | B SG Level Channel Failure High |
| 5 T=30 | | I | A S/G PORV Controller Failure |
| 6 T=40 | | M | Seismic Event—Loss of Offsite power |
| 7 | | C | 4160V Bus F lockout |
| 8 | | M | Aux Feedwater 52-HH-8 pump failure—causes Loss of D/G 1-1 |
| 9 | | C | Pressurizer PORV 8800C failure partially open |
| 10 | | C | TDAFP Auto Start Failure—(Given back after reset of trip linkage) |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 3

Op-Test No:

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 100% power, middle of cycle.

Turnover: High Kelp seas w/ high swells

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=0 | | N | Makeup to RWST |
| 2 T=5 | | I | Tave Channel failure Low (loop 1) |
| 3 | | C/R | Screen Wash System screen blkg causes loss of ASW pump; Reduce power to remove unit from service |
| 4 T=20 | | I | VCT Level Channel Failure Hi |
| 5 T= | | M | Hotwell Instrumentation leakage–Loss of feedwater |
| 6 T= | | C | Turbine Auto Trip Failure |
| 7 | | C | 4160V Bus H lockout |
| 8 | | M | TDAFP Trip on loss of steam supply |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 4

Op-Test No:

Examiners:

Operators:

Objectives:

Initial Conditions: 100% power, middle of cycle.

Turnover: B CCP OOS

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=0 | | N | Increase Ltdown flow from 75 to 120 GPM |
| 2 T=5 | | I | Pressurizer Pressure Channel Failure |
| 3 | | C | B Circ. Wtr Pump Trip on OC |
| 4 T=20 | | I | VCT Level Channel Failure Hi |
| 5 T=28 | | C | Loss of Condenser Vacuum due to in leakage |
| 6 T= | | R | Reduce Reactor Power due to Loss of Vacuum |
| 7 | | M | RCS leak-LOCA (Small break ramping to Large break LOCA) |
| 8 | | C | A Ch LOCA Sequencer Failure |
| 9 | | C | CIAS A Ch Actuation Failure |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 5

Op-Test No:

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 45% power, middle of cycle.

Turnover: Directed to increase power to 65%. B FWP is OOS and expected back next shift.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|--|
| 1 T=3 | | N | Place 3 Rd Cond. Pump in service to support power increase. |
| 2 T=10 | | I | Channel C SG#2 Differential Pressure (RCS Flow) transmitter fails low. |
| 3 T=15 | | N/R | Commence power increase through dilution. |
| 4 T=20 | | I | RCS Loop 1 Th instrument fails high |
| 5 T=30 | | C | Failure of power to SV-510B causes Feedwater Regulating FCV-510 to fail closed |
| 6 T=40 | | M | Loss of Coolant Accident (LOCA) (Small break ramping to Large Break LOCA) |
| 7 | | C/R | Three control rods stick partially out on reactor trip |
| 8 | | C | A Train Containment Spray pump trips |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 6

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 100% power, middle of cycle.

Turnover: DG 1-1 OOS for maintenance. Crew directed to decrease power to 85% after adjusting SIT tank level into normal band.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | N | Increase SIT A level |
| 2 T=10 | | I | Selected Pressurizer Level Channel fails HI |
| 3 T=15 | | N/R | Commence power decrease through boration |
| 4 T=20 | | I | RCS Loop 2 Tc instrument fails high |
| 5 T=30 | | C | Lockout of 4160V bus G due to OC condition on bus |
| 6 T=40 | | M | HELB outside containment |
| 7 | | C | One ADV fails open after MSIVs close |
| | | | |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 7

Op-Test No:

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 50% power, middle of cycle, equilibrium xenon.

Turnover: DG 1-1 OOS for maintenance. Main Feedwater Pump 1-1 OOS for maintenance. Crew directed to decrease power to take unit off line for planned outage. Grass fires flaring northeast of plant.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | C | Low Pressure Feedwater Heater () inlet valve fails closed. |
| 2 T=10 | | I | S/G 1-1 level instrument fails High |
| 3 T=15 | | N/R | Commence power decrease through boration |
| 4 T=20 | | I | Turbine Impulse Pressure Xmtr input (PT-) fails low |
| 5 T=30 | | C | Main Feedwater Pump 1-2 trips. |
| 6 T=40 | | M | Loss of Offsite power due to smoke from fires on high power lines |
| 7 | | C | DG 1-2 fails to tie onto the bus due to brkr lockout. |
| 8 | | C | TDAFW fails during startup. |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 8

Op-Test No:

Examiners:

Operators:

Objectives:

Initial Conditions: 50% power, middle of cycle, equilibrium xenon.

Turnover: 10 gpd leak on S/G 1-3. D/G 1-1 is OOS.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|--|
| 1 T=3 | | N/R | Ramp power to 100% following turnover. |
| 2 T=10 | | I | Tc Loop 3 fails high |
| 3 T=15 | | C | 2 Dropped rods when rods drive in due for failed high Tc |
| 4 T=20 | | M/R | 2 Stuck rods on Reactor Trip |
| 5 T=30 | | C | SI Train B failure |
| 6 T=40 | | I | IR NI 36 is undercompensated |
| 7 | | M | PZR Steam space leak develops. |
| | | | |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 9

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 100% power, middle of cycle, equilibrium xenon.

Turnover: .25 gpd leak on S/G 1-3. AFW pp 1-2 is OOS for 24 hrs. DG 1-2 is OOS for 8 hrs
Severe Weather; high winds 30-40 mph

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | I | VCT Tank LT-114 fails High over 1 minute ramp. |
| 2 T=10 | | C | Failed fuel RCS activity increases |
| 3 T=15 | | C | SG 1-3 tube leak (0 to 20 gpm over 3 minutes) |
| 4 T=20 | | N/R | S/D per T/S 3.4.6.2 |
| 5 T=30 | | I | PZR level Xmtr fails LT-459 |
| 6 T=40 | | M | MSL rupture on SG 1-2 inside Cont. over 4 min. ramp |
| 7 | | C | Auto SI initiation failure Train A/B. |
| 8 | | M | SG 1-3 Tube rupture 20 gpm to 400 gpm) (Insert when crew goes to EOP E-2. |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 10

Op-Test No:

Examiners:

Operators:

Objectives:

Initial Conditions: 75% power, middle of cycle, equilibrium xenon.

Turnover: Decrease power to 50%, 10 GPD leak on SG 1-3, MFP 1-1 seal water system oscillations, CCW pump 1-2 is OOS.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | N/R | Decrease power to 50%. |
| 2 T=10 | | C | Governor valve #1 LVDT fails closed |
| 3 T=15 | | I | RCS Boration Batch integrator fails during boration |
| 4 T=20 | | C | CCP 1-2 trips on OC; causes 4kV Bus G differential |
| 5 T=30 | | M | RCS leak develops (ramps to 7000 gpm in five minutes) |
| 6 T=30 | | C | Phase A Cont. Isol. Fails to auto actuate |
| 7 | | C | Loss of remaining RHR |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 11

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 75% power, middle of cycle, equilibrium xenon.

Turnover: Ramp to 100%; 20 gpd leak on SG 1-1; AFWP 1-2 OOS; CCP 1-1 OOS

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | N/R | Increase power to 100%. |
| 2 T=10 | | I | SG pressure PT 536A fails high |
| 3 T=15 | | C | Htr Drn pump trips |
| 4 T=20 | | I | LCP Halt Protection Set 1, Rack 1 |
| 5 T=30 | | M | Stm Brk outside Containment |
| 6 T=30 | | C | 4KV bus F Differential |
| 7 | | C | AFWP 1-2 trips on OC 2 PORVs fail closed |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

| | | |
|---|--|---|
| Facility: <u>DCPP</u> Date of Examination: <u>4/10/2000</u> Examination Level (circle one): RO / SRO Operating Test Number: <u>1</u> | | |
| Administrative Topic/Subject Description | Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions | |
| A.1 | Parameter Verification | G2.1.25 (2.8/3.1) Ability to obtain and interpret station reference materials such as graphs, monographs and tables which contain performance data. JPM - RO/SRO Determine if RIL has been exceeded (STP I-1A Step 14a) |
| | Fuel Handling | G2.1.23 (3.9/4.0) Ability to perform specific system and integrated plant procedures during all modes of plant operation. JPM - SRO/RO Determine Spent Fuel Pool Heat Load/Removal Parameters (OP B-8DS1 Att. 9.3) |
| A.2 | Maintenance | G2.2.17 (2.3/3.5) Knowledge of the process for managing maintenance activities during power operations. JPM - SRO Online Risk assessment (AD7.DC6 ATT. 9.13) |
| | Tagging & Clearances | G2.2.13 (3.6/3.8) Knowledge of tagging and clearance procedures. JPM - RO Review completed clearance. |
| A.3 | Radiation Control | G2.3.2 (2.5/2.9) Knowledge of facility ALARA program. Question - RO/SRO Difference in requirements for entry into High Rad and High-High Rad areas. |
| | Exposure Limits | G2.3.1 (2.6/3.0) Knowledge of 10CFR20 and related facility control requirements. Question - RO/SRO Calculate stay time compared to TEDE |
| A.4 | Emergency Plan | G2.4.41 (2.3/4.1) Knowledge of emergency action thresholds and classifications. JPM - SRO Determine Event Reportability - SGTL - LJC-200 |
| | | G2.4.29 (2.6/4.0) Knowledge of the emergency plan. Question - RO Escort Requirement with an Alert G2.4.39 (3.3/3.1) Knowledge of RO's responsibilities in emergency plan. Question - RO Who can communicate with NRC |

| | | |
|--|------------------------|--|
| Facility: <u>DCPP</u> | | Date of Examination: <u>4/10/2000</u> |
| Examination Level (circle one): RO / SRO | | Operating Test Number: <u>2</u> |
| Administrative Topic/Subject Description | | Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions |
| A.1 | Parameter Verification | G2.1.23 (3.9/4.0) Ability to perform specific system and integrated plant procedures during all modes of plant operation. JPM - SRO/RO Determine Ultimate Heat Sink temperature and determine action (STP I-1A step 39) |
| | Mode Changes | G2.1.30 (3.9/3.4) Ability to locate and operate components, including local controls. JPM -SRO/RO Perform Transfer Switch alignment for common equipment. (OP K10X27 Att. 9.1) |
| A.2 | Maintenance | G2.2.26 (2.5/3.7) Knowledge of refueling administrative requirements. JPM - SRO/RO Perform Outage Safety checklist (AD8.DC55 Att. 7.12) |
| A.3 | Exposure Limits | G2.3.1 (2.6/3.0) Knowledge of 10CFR20 and related facility control requirements. Question - RO/SRO Who can give Emergency Dose Authorization |
| | Overexposure | G2.3.4 (2.5/3.1) Knowledge of radiation exposure limits and contamination control, including permissible levels in excess of those authorized. Question - RO/SRO Determine which individual has suffered an overexposure (RB-2) |
| A.4 | Emergency Plan | G2.4.44 (2.1/4.0) Knowledge of emergency plan protective action recommendations. JPM - SRO Recommend PARS based on accident classification (LJC-192) |
| | | G2.4.29 (2.6/4.0) Knowledge of emergency plan. Question - RO When USCG is notified of Emergency Events G2.4.39 (3.3/3.1) Knowledge of RO's responsibilities in emergency plan implementation. Question - RO Activation of Site Emergency signal |

| | | |
|--|------------------------|---|
| Facility: _____ DCPD _____ | | Date of Examination: <u>4/10/2000</u> |
| Examination Level (circle one): RO / SRO | | Operating Test Number: <u>3</u> |
| Administrative Topic/Subject Description | | Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions |
| A.1 | Parameter Verification | G2.1.33 (3.4/4.0) Ability to recognize indications for system operating parameters which are entry-level conditions for Technical Specifications. JPM - SRO/RO Determine if AFD is within Tech Spec Limits (STP I-1C Step 1) |
| | Mode Change | G2.1.29 (3.4/3.3) Knowledge of how to conduct and verify valve lineups. JPM - SRO/RO Performance of sealed valve checklist (OP K10-A1) |
| A.2 | Maintenance | G2.2.20 (2.2/3.3) Knowledge of process for managing troubleshooting activities. JPM - SRO Review AP-5 Bistable Trip Authorization form -Faulted - (AP-5 Att. 4.2) |
| | Tagging & Clearances | G2.2.13 (3.6/3.8) Knowledge of tagging and clearance procedures. JPM - RO Review completed clearance. |
| A.3 | Exposure Limits | G2.3.4 (2.5/3.1) Knowledge of radiation exposure limits and contamination control, including permissible levels in excess of those authorized. Question - RO/SRO Perform Dose calculation based on dose history and expected stay time in High radiation area |
| | Radiation Control | G2.3.2 (2.5/2.9) Knowledge of facility ALARA program. Question - RO/SRO Posting requirements when Radiological conditions change. |
| A.4 | Emergency Plan | G2.4.41 (2.3/4.1) Knowledge of emergency action thresholds and classifications. JPM - SRO Perform Off-site Dose Assessment - GDT rupture (LJC-151) |
| | | G2.4.42 (2.3/3.7) Knowledge of emergency response facilities. Question - RO Lowest event classification for OSC activation G.2.4.29 (2.6/4.0) Knowledge of Emergency Plan Question - RO Time to notify the NRC of classification change |

| | | | |
|--|--|---------------------------------------|-----------------|
| Facility: <u>DCPP</u> | | Date of Examination: <u>4/10/2000</u> | |
| Exam Level (circle one): RO / SRO(I) / SRO(U) | | Operating Test No.: <u>1</u> | |
| B.1 Control Room Systems | | | |
| System / JPM Title | | Type Code* | Safety Function |
| a. 010 / Depressurize the RCS using Normal Spray LJC-033 | | D,S,L | III |
| b. 062 / Transfer Bus G to Aux. Power from Dsl. Gen. 1-2 LJC-087 | | D,S | VI |
| c. 003 / Start A Reactor Coolant Pump LJC-120 | | D,S,L | IV |
| d. 026 / Align RHR to Containment Spray LJC-045 | | D,A,S | V |
| e. 013 / Manually Isolate Phase A Components Train A & B Failure LJC-026 | | D,A,S | II |
| f. 041 / Initiate a Natural Circulation Cooldown LJC-046 Modify - Fail MSIVs closed requires 10% dumps | | M,A,S,L | IV |
| g. 004 / Establish Emergency Boration LJC-063 | | D,A,S,L | I |
| B.2 Facility Walk-Through | | | |
| a. 004 / Align Charging Pump Suction from RWST LJP-029 | | D,L,R | II |
| b. 064 / Perform Local Start of Diesel Generator LJP-003 - Modify so local alarm "active in test only" after start forces shutdown | | M,A | VI |
| c. 033 / Add. of Hot Water to the Spent Fuel Pool from RCS New Task, OP AP SD-0 Appendix G step 4.2 | | N,L,R | VIII |
| * Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA | | | |

| Facility: <u>DCPP</u> | | Date of Examination: <u>4/10/2000</u> |
|--|------------|---------------------------------------|
| Exam Level (circle one): RO / SRO(I) / SRO(U) | | Operating Test No.: <u>2</u> |
| B.1 Control Room Systems | | |
| System / JPM Title | Type Code* | Safety Function |
| a. 001 / Est Steady State Conditions after a Rod Misalignment LJC-022 | D,S | I |
| b. 006 / Respond to Low Accumulator Pressure LJC-077 | D,S | II |
| c. 035 / Isolate Ruptured Steam Generator 12 LJC-011 Modify- fault TDAFW stm supply valve & LCV for SG | M,A,L,S | IV |
| d. 026 / Secure Containment Spray LJC-080 | D,L,S | V |
| e. 010 / Depressurize the RCS using Normal Spray LJC-033 - Modify - Stick open Loop 1 Pressurizer spray valve | M,A,L,S | III |
| f. 012 / Respond to an ATWS LJC-041 | D,A,S | VII |
| g. 008 / Respond to Loss of CCW to Letdown Heat Exchanger LJC-126 | D,A,S | VIII |
| B.2 Facility Walk-Through | | |
| a. 010 / Transfer PZR Heater Group 13 to Backup Power LJP-079 | D,L | III |
| b. 068 / Isolate Ruptured LHUT New Task OP AP-14 Step 8f. | N,R | IX |
| c. 008 / Crosstie CCW system between Units LJPNRC-2 Repeat from January 1999 SRO Exam | D,R | VIII |
| * Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA | | |

| | | | |
|--|--|---------------------------------------|-----------------|
| Facility: <u>DCPP</u> | | Date of Examination: <u>4/10/2000</u> | |
| Exam Level (circle one): RO / SRO(I) / SRO(U) | | Operating Test No.: <u>3</u> | |
| B.1 Control Room Systems | | | |
| System / JPM Title | | Type Code* | Safety Function |
| a. 001 / Restore Bank Alignment for a Misaligned Rod LJC-067 | | D,S | I |
| b. 062 / Restoration of Buses after Loss of Offsite Power LJC-210 | | D,S | VI |
| c. 035 / Respond to Steam Generator Tube Failure - AP-3 LJC-121 | | D,S | IV |
| d. 026 / Secure Containment Spray LJC-81 | | D,S,L | V |
| e. 017 / Calculate Subcooled Margin LJC-024 | | D,A,S,L | VII |
| f. 008 / Respond to High CCW system Temperature New Task - OP AP-11, Section A - only 1 ASW pp available | | N,A,S | VIII |
| g. 006 / Transfer to Cold Leg Recirculation LJC-027 - Make faulted at step 6e RHR Pp 2 fails to start | | M,A,S | II |
| B.2 Facility Walk-Through | | | |
| a. 010 / Transfer PZR Heater Group 1-2 to Backup Power LJP- 029 | | D | III |
| b. 064 / Perform Local Start of Diesel Generator LJP-003 - Modify so local alarm "active in test only" after start forces shutdown | | M,A,L | VI |
| c. 035 / Close Steam Generator Isolation Valves Outside Containment LJP 096 | | D,A,L,R | IV |
| * Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA | | | |

Facility: Diablo Canyon Power Plant

Scenario No: 1

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 80% power, middle of cycle.

Turnover:

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|--|
| 1 T=3 | | I | Pressurizer Level Channel Failure |
| 2 T=10 | | C | Letdown Isolation Valve Failure |
| 3 T=15 | | N | Place Excess Letdown in Service |
| 4 T=20 | | C/R | B RCP High Vibration Requiring Power Reduction |
| 5 T=30 | | I | A S/G PORV Controller Failure |
| 6 T=40 | | M | B RCP Trip |
| 7 | | C | Automatic Reactor Trip Failure |
| 8 | | M | A S/G Tube Rupture with Stuck Open Safety |
| 9 | | C | C CCP Pump Trip on OC |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 2

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 80% power, middle of cycle.

Turnover: DG 1-2 is OOS for Maintenance. Small leakage thru PORV 8800C—monitoring.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=0 | | N | Shift from CCP 22 to CCP 21 |
| 2 T=5 | | R | Raise Reator Power |
| 3 | | I | Feed Flow Channel Failure C S/G |
| 4 T=20 | | I | B SG Level Channel Failure High |
| 5 T=30 | | I | A S/G PORV Controller Failure |
| 6 T=40 | | M | Seismic Event—Loss of Offsite power |
| 7 | | C | 4160V Bus F lockout |
| 8 | | M | Aux Feedwater 52-HH-8 pump failure—causes Loss of D/G 1-1 |
| 9 | | C | Pressurizer PORV 8800C failure partially open |
| 10 | | C | TDAFP Auto Start Failure—(Given back after reset of trip linkage) |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 3

Op-Test No:

Examiners:

Operators:

Objectives:

Initial Conditions: 100% power, middle of cycle.

Turnover: High Kelp seas w/ high swells

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=0 | | N | Makeup to RWST |
| 2 T=5 | | I | Tave Channel failure Low (loop 1) |
| 3 | | C/R | Screen Wash System screen blkg causes loss of ASW pump; Reduce power to remove unit from service |
| 4 T=20 | | I | VCT Level Channel Failure Hi |
| 5 T= | | M | Hotwell Instrumentation leakage–Loss of feedwater |
| 6 T= | | C | Turbine Auto Trip Failure |
| 7 | | C | 4160V Bus H lockout |
| 8 | | M | TDAFP Trip on loss of steam supply |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 4

Op-Test No:

Examiners:

Operators:

Objectives:

Initial Conditions: 100% power, middle of cycle.

Turnover: B CCP OOS

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=0 | | N | Increase Ltdown flow from 75 to 120 GPM |
| 2 T=5 | | I | Pressurizer Pressure Channel Failure |
| 3 | | C | B Circ. Wtr Pump Trip on OC |
| 4 T=20 | | I | VCT Level Channel Failure Hi |
| 5 T=28 | | C | Loss of Condenser Vacuum due to in leakage |
| 6 T= | | R | Reduce Reactor Power due to Loss of Vacuum |
| 7 | | M | RCS leak-LOCA (Small break ramping to Large break LOCA) |
| 8 | | C | A Ch LOCA Sequencer Failure |
| 9 | | C | CIAS A Ch Actuation Failure |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 5

Op-Test No:

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 45% power, middle of cycle.

Turnover: Directed to increase power to 65%. B FWP is OOS and expected back next shift.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|--|
| 1 T=3 | | N | Place 3 Rd Cond. Pump in service to support power increase. |
| 2 T=10 | | I | Channel C SG#2 Differential Pressure (RCS Flow) transmitter fails low. |
| 3 T=15 | | N/R | Commence power increase through dilution. |
| 4 T=20 | | I | RCS Loop 1 Th instrument fails high |
| 5 T=30 | | C | Failure of power to SV-510B causes Feedwater Regulating FCV-510 to fail closed |
| 6 T=40 | | M | Loss of Coolant Accident (LOCA) (Small break ramping to Large Break LOCA) |
| 7 | | C/R | Three control rods stick partially out on reactor trip |
| 8 | | C | A Train Containment Spray pump trips |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 6

Op-Test No:

Examiners:

Operators:

Objectives:

Initial Conditions: 100% power, middle of cycle.

Turnover: DG 1-1 OOS for maintenance. Crew directed to decrease power to 85% after adjusting SIT tank level into normal band.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | N | Increase SIT A level |
| 2 T=10 | | I | Selected Pressurizer Level Channel fails HI |
| 3 T=15 | | N/R | Commence power decrease through boration |
| 4 T=20 | | I | RCS Loop 2 Tc instrument fails high |
| 5 T=30 | | C | Lockout of 4160V bus G due to OC condition on bus |
| 6 T=40 | | M | HELB outside containment |
| 7 | | C | One ADV fails open after MSIVs close |
| | | | |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 7

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 50% power, middle of cycle, equilibrium xenon.

Turnover: DG 1-1 OOS for maintenance. Main Feedwater Pump 1-1 OOS for maintenance. Crew directed to decrease power to take unit off line for planned outage. Grass fires flaring northeast of plant.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | C | Low Pressure Feedwater Heater () inlet valve fails closed. |
| 2 T=10 | | I | S/G 1-1 level instrument fails High |
| 3 T=15 | | N/R | Commence power decrease through boration |
| 4 T=20 | | I | Turbine Impulse Pressure Xmtr input (PT-) fails low |
| 5 T=30 | | C | Main Feedwater Pump 1-2 trips. |
| 6 T=40 | | M | Loss of Offsite power due to smoke from fires on high power lines |
| 7 | | C | DG 1-2 fails to tie onto the bus due to brkr lockout. |
| 8 | | C | TDAFW fails during startup. |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 8

Op-Test No:

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 50% power, middle of cycle, equilibrium xenon.

Turnover: 10 gpd leak on S/G 1-3. D/G 1-1 is OOS.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|--|
| 1 T=3 | | N/R | Ramp power to 100% following turnover. |
| 2 T=10 | | I | Tc Loop 3 fails high |
| 3 T=15 | | C | 2 Dropped rods when rods drive in due for failed high Tc |
| 4 T=20 | | M/R | 2 Stuck rods on Reactor Trip |
| 5 T=30 | | C | SI Train B failure |
| 6 T=40 | | I | IR NI 36 is undercompensated |
| 7 | | M | PZR Steam space leak develops. |
| | | | |
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| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 9

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 100% power, middle of cycle, equilibrium xenon.

Turnover: .25 gpd leak on S/G 1-3. AFW pp 1-2 is OOS for 24 hrs. DG 1-2 is OOS for 8 hrs
Severe Weather; high winds 30-40 mph

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | I | VCT Tank LT-114 fails High over 1 minute ramp. |
| 2 T=10 | | C | Failed fuel RCS activity increases |
| 3 T=15 | | C | SG 1-3 tube leak (0 to 20 gpm over 3 minutes) |
| 4 T=20 | | N/R | S/D per T/S 3.4.6.2 |
| 5 T=30 | | I | PZR level Xmtr fails LT-459 |
| 6 T=40 | | M | MSL rupture on SG 1-2 inside Cont. over 4 min. ramp |
| 7 | | C | Auto SI initiation failure Train A/B. |
| 8 | | M | SG 1-3 Tube rupture 20 gpm to 400 gpm) (Insert when crew goes to EOP E-2. |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 10

Op-Test No:

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 75% power, middle of cycle, equilibrium xenon.

Turnover: Decrease power to 50%, 10 GPD leak on SG 1-3, MFP 1-1 seal water system oscillations, CCW pump 1-2 is OOS.

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | N/R | Decrease power to 50%. |
| 2 T=10 | | C | Governor valve #1 LVDT fails closed |
| 3 T=15 | | I | RCS Boration Batch integrator fails during boration |
| 4 T=20 | | C | CCP 1-2 trips on OC; causes 4kV Bus G differential |
| 5 T=30 | | M | RCS leak develops (ramps to 7000 gpm in five minutes) |
| 6 T=30 | | C | Phase A Cont. Isol. Fails to auto actuate |
| 7 | | C | Loss of remaining RHR |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Diablo Canyon Power Plant

Scenario No: 11

Op-Test No: _____

Examiners: _____

Operators: _____

Objectives:

Initial Conditions: 75% power, middle of cycle, equilibrium xenon.

Turnover: Ramp to 100%; 20 gpd leak on SG 1-1; AFWP 1-2 OOS; CCP 1-1 OOS

Setup:

| Event No. | Malf. No. | Event Type* | Event Description |
|-----------|-----------|-------------|---|
| 1 T=3 | | N/R | Increase power to 100%. |
| 2 T=10 | | I | SG pressure PT 536A fails high |
| 3 T=15 | | C | Htr Drn pump trips |
| 4 T=20 | | I | LCP Halt Protection Set 1, Rack 1 |
| 5 T=30 | | M | Stm Brk outside Containment |
| 6 T=30 | | C | 4KV bus F Differential |
| 7 | | C | AFWP 1-2 trips on OC 2 PORVs fail closed |
| | | | |
| | | | |
| | | | |

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

| | | |
|--|----------------------------------|--|
| Facility: <u>DCPP</u> | | Date of Examination: <u>4/10/2000</u> |
| Examination Level (circle one): RO / SRO | | Operating Test Number: <u>1</u> |
| Administrative Topic/Subject Description | | Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions |
| A.1 | Parameter Verification | ADMNRC-1RO, Determine if RIL has been exceeded (JPM) ADMNRC-1SRO, Determine if RIL has been exceeded (JPM) |
| | Fuel Handling | ADMNRC-2RO, Determine SFP Heat Load/Removal Parameters (JPM) ADMNRC-2SRO, Verification of Determination of SFP Heat Load/Removal Parameters (JPM) |
| A.2 | Maintenance Tagging & Clearances | ADMNRC-3SRO, Perform online Risk Assessment (JPM) |
| | | ADMNRC-4RO, Re-verify Active Master Clearance - GDT on Hold (JPM) |
| A.3 | Radiation Control | ADMNRC-5, Entry into a locked High Radiation Area (JPM) RO/SRO |
| | | |
| A.4 | Emergency Plan | ADMNRC-6SRO, Determine event classification and complete notification form. (JPM) |
| | | Escort Requirement with an Alert. Question - RO |
| | | Who can communicate with NRC. Question - RO |

| | | |
|--|------------------------|---|
| Facility: <u>DCPP</u> | | Date of Examination: <u>4/10/2000</u> |
| Examination Level (circle one): RO / SRO | | Operating Test Number: <u>2</u> |
| Administrative Topic/Subject Description | | Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions |
| A.1 | Parameter Verification | ADMNRC-7RO, Determine Ultimate Heat Sink temperature. (JPM) ADMNRC-7SRO, Verify a determination of Ultimate Heat Sink temperature. (JPM) |
| | Mode Changes | ADMNRC-8, Perform Transfer Switch alignment for common equipment. (JPM) RO/SRO |
| A.2 | Maintenance | ADMNRC-9RO, Perform Outage Safety Checklist. (JPM) ADMNRC-9SRO, Verify Outage Safety Checklist. (JPM) |
| A.3 | Radiation Control | ADMNRC-10RO, Perform personnel frisk upon exiting SCA |
| | Exposure Limits | Determine individuals TEDE for current year. Question - SRO Determine type of radiation permit for given task. Question - SRO |
| A.4 | Emergency Plan | ADMNRC-11SRO, Classify and Recommend PARS based on accident classification (JPM) |
| | | When USCG is notified of Emergency Events. Question - RO Activation of Site Emergency signal. Question - RO |

| | | |
|--|------------------------|--|
| Facility: <u>DCPP</u> | | Date of Examination: <u>4/10/2000</u> |
| Examination Level (circle one): RO / SRO | | Operating Test Number: <u>3</u> |
| Administrative Topic/Subject Description | | Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions |
| A.1 | Parameter Verification | ADMNRC-12RO, Determine if AFD is within Tech Spec Limits (JPM) ADMNRC-12SRO, Verify AFD is within Tech Spec Limits (JPM) |
| | Mode Change | ADMNRC-13, Performance of sealed valve checklist (JPM) - SRO/RO |
| A.2 | Maintenance | ADMNRC-14SRO, Review AP-5 Bistable Trip Authorization form. (JPM) |
| | Tagging & Clearances | ADMNRC-15RO, Review a clearance for technical accuracy. (JPM) |
| A.3 | Radiation Control | ADMNRC-16RO, Termination of a Liquid Radwaste Release. (JPM) |
| | Exposure Limits | Perform Dose calculation based on dose history and expected stay time in High High radiation area. Question - SRO Who can authorize an emergency exposure. Question - SRO |
| A.4 | Emergency Plan | ADMNRC-17SRO, Perform Off-site Dose Assessment - GDT rupture (JPM) |
| | | Lowest event classification for TSC activation. Question - RO Time to notify the NRC of classification change. Question - RO |

| | | | |
|--|--|---------------------------------------|-----------------|
| Facility: <u>DCPP</u> | | Date of Examination: <u>4/10/2000</u> | |
| Exam Level (circle one): RO / SRO(I) / SRO(U) | | Operating Test No.: <u>1</u> | |
| B.1 Control Room Systems | | | |
| System / JPM Title | | Type Code* | Safety Function |
| a. 010 / Depressurize the RCS using Normal Spray LJC-033 | | D,S,L | III |
| b. 062 / Transfer Bus G to Aux. Power from Dsl. Gen. 1-2 LJC-087 | | D,S | VI |
| c. 003 / Start A Reactor Coolant Pump LJC-120 | | D,S,L | IV |
| d. 026 / Align RHR to Containment Spray LJC-045 | | D,A,S | V |
| e. 013 / Manually Isolate Phase A Components Train A & B Failure LJC-026 | | D,A,S | II |
| f. 041 / Initiate a Natural Circulation Cooldown LJC-046 Modify - Fail MSIVs closed requires 10% dumps | | M,A,S,L | IV |
| g. 004 / Establish Emergency Boration LJC-063 | | D,A,S,L | I |
| B.2 Facility Walk-Through | | | |
| a. 004 / Align Charging Pump Suction from RWST LJP-029 | | D,L,R | II |
| b. 064 / Perform Local Start of Diesel Generator LJP-003 - Modify so local alarm "active in test only" after start forces shutdown | | M,A | VI |
| c. 033 / Add. of Hot Water to the Spent Fuel Pool from RCS New Task, OP AP SD-0 Appendix G step 4.2 | | N,L,R | VIII |
| * Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA | | | |

| Facility: <u>DCPP</u> | | Date of Examination: <u>4/10/2000</u> |
|--|------------|---------------------------------------|
| Exam Level (circle one): RO / SRO(I) / SRO(U) | | Operating Test No.: <u>2</u> |
| B.1 Control Room Systems | | |
| System / JPM Title | Type Code* | Safety Function |
| a. 001 / Est Steady State Conditions after a Rod Misalignment LJC-022 | D,S | I |
| b. 006 / Respond to Low Accumulator Pressure LJC-077 | D,S | II |
| c. 035 / Isolate Ruptured Steam Generator 12 LJC-011 Modify- fault TDAFW stm supply valve & LCV for SG | M,A,L,S | IV |
| d. 026 / Secure Containment Spray LJC-080 | D,L,S | V |
| e. 010 / Depressurize the RCS using Normal Spray LJC-033 - Modify - Stick open Loop 1 Pressurizer spray valve | M,A,L,S | III |
| f. 012 / Respond to an ATWS LJC-041 | D,A,S | VII |
| g. 008 / Respond to Loss of CCW to Letdown Heat Exchanger LJC-126 | D,A,S | VIII |
| B.2 Facility Walk-Through | | |
| a. 010 / Transfer PZR Heater Group 13 to Backup Power LJP-079 | D,L | III |
| b. 068 / Isolate Ruptured LHUT New Task OP AP-14 Step 8f. | N,R | IX |
| c. 008 / Crosstie CCW system between Units LJPNRC-2 Repeat from January 1999 SRO Exam | D,R | VIII |
| * Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA | | |

| | | | |
|--|--|---------------------------------------|-----------------|
| Facility: <u>DCPP</u> | | Date of Examination: <u>4/10/2000</u> | |
| Exam Level (circle one): RO / SRO(I) / SRO(U) | | Operating Test No.: <u>3</u> | |
| B.1 Control Room Systems | | | |
| System / JPM Title | | Type Code* | Safety Function |
| a. 001 / Restore Bank Alignment for a Misaligned Rod LJC-067 | | D,S | I |
| b. 062 / Restoration of Buses after Loss of Offsite Power LJC-210 | | D,S | VI |
| c. 035 / Respond to Steam Generator Tube Failure - AP-3 LJC-121 | | D,S | IV |
| d. 026 / Secure Containment Spray LJC-81 | | D,S,L | V |
| e. 017 / Calculate Subcooled Margin LJC-024 | | D,A,S,L | VII |
| f. 008 / Respond to High CCW system Temperature New Task - OP AP-11, Section A - only 1 ASW pp available | | N,A,S | VIII |
| g. 006 / Transfer to Cold Leg Recirculation LJC-027 - Make faulted at step 6e RHR Pp 2 fails to start | | M,A,S | II |
| B.2 Facility Walk-Through | | | |
| a. 010 / Transfer PZR Heater Group 1-2 to Backup Power LJP- 029 | | D | III |
| b. 064 / Perform Local Start of Diesel Generator LJP-003 - Modify so local alarm "active in test only" after start forces shutdown | | M,A,L | VI |
| c. 035 / Close Steam Generator Isolation Valves Outside Containment LJP 096 | | D,A,L,R | IV |
| * Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA | | | |

| Facility: DCPD Date of Exam: 4/10/00 Exam Level: RO | | | | | | | | | | | | | |
|--|-------------|---------------------|-----|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------------|
| Tier | Group | K/A Category Points | | | | | | | | | | | Point Total |
| | | K 1 | K 2 | K 3 | K 4 | K 5 | K 6 | A 1 | A 2 | A 3 | A 4 | G * | |
| 1. Emergency & Abnormal Plant Evolutions | 1 | 2 | 2 | 6 | | | | 2 | 3 | | | 1 | 16 |
| | 2 | 4 | 3 | 1 | | | | 3 | 5 | | | 1 | 17 |
| | 3 | 0 | 0 | 1 | | | | 1 | 1 | | | 0 | 3 |
| | Tier Totals | 6 | 5 | 8 | | | | 6 | 9 | | | 2 | 36 |
| 2. Plant Systems | 1 | 4 | 1 | 2 | 3 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 23 |
| | 2 | 4 | 0 | 3 | 1 | 1 | 1 | 1 | 2 | 3 | 2 | 2 | 20 |
| | 3 | 0 | 1 | 1 | 0 | 1 | 0 | 2 | 1 | 0 | 2 | 0 | 8 |
| | Tier Totals | 8 | 2 | 6 | 4 | 3 | 2 | 5 | 5 | 5 | 6 | 5 | 51 |
| 3. Generic Knowledge and Abilities | | | | | Cat 1 | | Cat 2 | | Cat 3 | | Cat 4 | | 13 |
| | | | | | 3 | | 4 | | 2 | | 4 | | |
| <p>Note: 1. Ensure that at least two topics from every K/A category are sampled within each tier (i.e., the "Tier Totals" in each K/A category shall not be less than two).</p> <p>2. Actual point totals must match those specified in the table.</p> <p>3. Select topics from many systems; avoid selecting more than two or three K/A topics from a given system unless they relate to plant-specific priorities.</p> <p>4. Systems/evolutions within each group are identified on the associated outline.</p> <p>5. The shaded areas are not applicable to the category/tier.</p> <p>6.* The generic K/As in Tiers 1 and 2 shall be selected from Section 2 of the K/A Catalog, but the topics must be relevant to the applicable evolution or system.</p> <p>7. On the following pages, enter the K/A numbers, a brief description of each topic, the topics' importance ratings for the RO license level, and the point totals for each system and category. K/As below 2.5 should be justified on the basis of plant-specific priorities. Enter the tier totals for each category in the table above.</p> | | | | | | | | | | | | | |

| E/APE # / Name / Safety Function | K1 | K2 | K3 | A1 | A2 | G | K/A Topic(s) | Imp. | Points |
|--|----|----|----|----|----|---|--|------|--------|
| 000005 Inoperable/Stuck Control Rod / 1 2 | | | 1 | | | | AK3.02 basis of rod insertion limit | 3.6 | 1 |
| 000015/17 RCP Malfunctions / 4 5 | | | | 1 | | | AA1.22 RCP seal failure | 4.0 | 1 |
| BW/E09; CE/A13; W/E09&E10 Natural Circ. / 4 9 | | | 1 | | | | EK3.1 steam flow effect on natural circulation flow | 3.3 | 1 |
| 000024 Emergency Boration / 1 12 | | | | | 1 | | AA2.05 emergency boration for stuck control rods | 3.3 | 1 |
| 000026 Loss of Component Cooling Water / 8 16 | | | 1 | | | | AK3.02 manual phase A impact | 3.6 | 1 |
| 000027 Pressurizer Pressure Control System Malfunction / 3 19 | | 1 | | | | | AK2.03 backup transmitter failure effects | 2.6 | 1 |
| 000040 (BW/E05; CE/E05; W/E12) Steam Line Rupture - Excessive Heat Transfer / 4 23 | 1 | | | | | | AK1.06 pressurizer level indication vs actual | 3.7 | 1 |
| CE/A11; W/E08 RCS Overcooling - PTS / 4 27 | | 1 | | | | | EK2.2 feed flow/level SG uncontrolled depressurization | 3.6 | 1 |
| 000051 Loss of Condenser Vacuum / 4 30 | | | | | 1 | | AA2.02 turbine trip conditions | 3.9 | 1 |
| 000055 Station Blackout / 6 34 | | | 1 | | | | EK3.02 EOP transition | 4.3 | 1 |
| 000057 Loss of Vital AC Elec. Inst. Bus / 6 37 | | | | | 1 | | AA2.19 loss of instrumentation vital bus | 4.0 | 1 |
| 000062 Loss of Nuclear Service Water / 4 | | | | | | | | | |
| 000067 Plant Fire On-site / 9 57 | 1 | | | | | | AK1.02 Halon extinguish mechanism | 3.1 | 1 |
| 000068 (BW/A06) Control Room Evac. / 8 42 | | | | | | 1 | G2.4.49 actions on evacuation | 4.0 | 1 |
| 000069 (W/E14) Loss of CTMT Integrity / 5 46 | | | | 1 | | | EA1.3 CS/CFCU impact on containment pressure | 3.3 | 1 |
| 000074 (W/E06&E07) Inad. Core Cooling / 4 51 | | | 1 | | | | EK3.08 RCP operation | 4.1 | 1 |
| BW/E03 Inadequate Subcooling Margin / 4 | | | | | | | | | |
| 000076 High Reactor Coolant Activity / 9 63 | | | 1 | | | | AK3.05 bases for cooldown on high RCS activity | 2.9 | 1 |
| BW/A02&A03 Loss of NNI-X/Y / 7 | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| K/A Category Totals: | 2 | 2 | 6 | 2 | 3 | 1 | Group Point Total: | | 16 |

| ES-401 | | PWR RO Examination Outline Emergency and Abnormal Plant Evolutions - Tier 1/Group 2 | | | | | | Form ES-401-4 | |
|--|----|--|----|----|----|---|--|---------------|--------|
| E/APE # / Name / Safety Function | K1 | K2 | K3 | A1 | A2 | G | K/A Topic(s) | Imp. | Points |
| 000001 Continuous Rod Withdrawal / 1 | 3 | 1 | | | | | AK1.05 reactor / turbine mismatch | 3.5 | 1 |
| 000003 Dropped Control Rod / 1 | 6 | 1 | | | | | AK2.05 rod control urgent failure alarm status | 3.1 | 1 |
| 000007 (BW/E02&E10; CE/E02) Reactor Trip - Stabilization - Recovery / 1 | 10 | | | | 1 | | EA2.02 pressurizer heater realignment | 4.3 | 1 |
| BW/A01 Plant Runback / 1 | | | | | | | | | |
| BW/A04 Turbine Trip / 4 | | | | | | | | | |
| 000008 Pressurizer Vapor Space Accident / 3 | 13 | | | 1 | | | AA1.08 tail pipe temperature | 3.8 | 1 |
| 000009 Small Break LOCA / 3 | 17 | | | | 1 | | EA2.02 cold leg break vs hot leg break | 3.5 | 1 |
| 000011 Large Break LOCA / 3 | 20 | | | 1 | | | EA1.15 RCS temperature vs RVLIS | 4.2 | 1 |
| W/E04 LOCA Outside Containment / 3 | | | | | | | | | |
| BW/E08; W/E03 LOCA Cooldown/Depress. / 4 | | | | | | | | | |
| W/E11 Loss of Emergency Coolant Recirc. / 4 | 24 | 1 | | | | | EK1.3 RHR pump restart | 3.6 | 1 |
| W/E01 & E02 Rediagnosis & SI Termination / 3 | 28 | | 1 | | | | EK2.1 feedwater isolation reset | 3.4 | 1 |
| 000022 Loss of Reactor Coolant Makeup / 2 | 31 | | | | 1 | | AA2.01 charging line break | 3.2 | 1 |
| 000025 Loss of RHR System / 4 | 35 | | | 1 | | | AA1.02 high steam velocity in surge line | 3.8 | 1 |
| 000029 Anticipated Transient w/o Scram / 1 | 38 | | | | | 1 | EA2.09 AMSAC condition indication | 3.7 | 1 |
| 000032 Loss of Source Range NI / 7 | | | | | | | | | |
| 000033 Loss of Intermediate Range NI / 7 | 43 | 1 | | | | | AK1.01 overcompensated detectors | 2.7 | 1 |
| 000037 Steam Generator Tube Leak / 3 | | | | | | | | | |
| 000038 Steam Generator Tube Rupture / 3 | 48 | | 1 | | | | EK3.08 RCP trip criteria | 4.1 | 1 |
| 000054 (CE/E06) Loss of Main Feedwater / 4 | 52 | | | | 1 | | AA2.05 feedwater control valves after reator trip and safety injection | 3.5 | 1 |
| BW/E04; W/E05 Inadequate Heat Transfer - Loss of Secondary Heat Sink / 4 | | | | | | | | | |
| 000058 Loss of DC Power / 6 | 58 | | | | 1 | | AA2.03 breaker operation without DC control power | 3.5 | 1 |
| 000059 Accidental Liquid RadWaste Rel. / 9 | 65 | | 1 | | | | AK2.01 system response to radiation alarm | 2.7 | 1 |
| 000060 Accidental Gaseous Radwaste Rel. / 9 | | | | | | | | | |
| 000061 ARM System Alarms / 7 | | | | | | | | | |
| W/E16 High Containment Radiation / 9 | 69 | 1 | | | | | EK1.3 purge radiation monitor and CVI bypassed | 3.0 | 1 |
| CE/E09 Functional Recovery | | | | | | | | | |
| K/A Category Point Totals: | 4 | 3 | 1 | 3 | 5 | 1 | Group Point Total: | | 17 |

| System # / Name | K1 | K2 | K3 | K4 | K5 | K6 | A1 | A2 | A3 | A4 | G | K/A Topic(s) | Imp. | Points |
|--|----|----|----|----|----|----|----|----|----|----|---|--|------|--------|
| 001 Control Rod Drive | 1 | 1 | | | | | | | | | | K2.05 power supply | 3.1 | 1 |
| 003 Reactor Coolant Pump | 8 | | | | 1 | | | | | | | K5.02 RCP coastdown | 2.8 | 1 |
| 003 Reactor Coolant Pump | 2 | | | | | | | | | | 1 | 2.1.12 RCP technical specification | 2.9 | 1 |
| 004 Chemical and Volume Control | 11 | 1 | | | | | | | | | | K1.18 excessive CCW to LDHX | 2.9 | 1 |
| 004 Chemical and Volume Control | 15 | | | | | | | | 1 | | | A3.01 dilute mode | 3.5 | 1 |
| 013 Engineered Safety Features Actuation | 18 | | | | | | | 1 | | | | A2.04 response to instrument bus failure | 3.6 | 1 |
| 013 Engineered Safety Features Actuation | 22 | | | 1 | | | | | | | | K4.01 safety injection reset | 3.9 | 1 |
| 013 Engineered Safety Features Actuation | 26 | | | | | | 1 | | | | | A1.01 restart ECCS | 4.0 | 1 |
| 015 Nuclear Instrumentation | 29 | | | | | 1 | | | | | | K6.02 degraded compensating voltage | 2.6 | 1 |
| 015 Nuclear Instrumentation | 33 | | | | | | | | | 1 | | A4.02 comparator circuit | 3.9 | 1 |
| 015 Nuclear Instrumentation | 99 | | | | | | | | | | 1 | 2.1.7 heat balance error effect | 3.7 | 1 |
| 017 In-core Temperature Monitor | 36 | 1 | | | | | | | | | | K1.02 valid CET alarms | 3.3 | 1 |
| 022 Containment Cooling | 40 | | | | | | | | | 1 | | A4.01 monitor RCS leakage | 3.6 | 1 |
| 022 Containment Cooling | 45 | | | | | | 1 | | | | | A1.04 standby automatic start | 3.2 | 1 |
| 056 Condensate | 50 | | | | | | | 1 | | | | A2.04 condensate pump trip effects | 2.6 | 1 |
| 059 Main Feedwater | 55 | | | 1 | | | | | | | | K4.05 digital speed control | 2.5 | 1 |
| 059 Main Feedwater | 60 | | | | | | | | 1 | | | A3.06 P-14 automatic operation | 3.2 | 1 |
| 061 Auxiliary/Emergency Feedwater | 66 | | | | | | | | | | 1 | 2.1.10 CST technical specification basis | 2.7 | 1 |
| 061 Auxiliary/Emergency Feedwater | 72 | 1 | | | | | | | | | | K1.03 motive steam | 3.5 | 1 |
| 061 Auxiliary/Emergency Feedwater | 76 | | 1 | | | | | | | | | K3.02 level response to break | 4.2 | 1 |
| 068 Liquid Radwaste | 80 | 1 | | | | | | | | | | K1.07 radwaste sources | 2.7 | 1 |
| 071 Waste Gas Disposal | 90 | | 1 | | | | | | | | | K3.05 waste gas rupture | 3.2 | 1 |
| 072 Area Radiation Monitoring | 85 | | | 1 | | | | | | | | A4.03 RM instrument operation | 3.1 | 1 |
| K/A Category Point Totals: | 4 | 1 | 2 | 3 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | Group Point Total: | | 23 |

| System # / Name | K1 | K2 | K3 | K4 | K5 | K6 | A1 | A2 | A3 | A4 | G | K/A Topic(s) | Imp. | Points |
|----------------------------------|----|----|----|----|----|----|----|----|----|----|---|--|------|--------|
| 002 Reactor Coolant | 41 | | | | 1 | | | | | | | K5.11 RCP effects on SG level | 4.0 | 1 |
| 002 Reactor Coolant | 93 | | | | | | | | | | 1 | G2.1.28 technical specification bases | 4.1 | 1 |
| 006 Emergency Core Cooling | 44 | | | 1 | | | | | | | | K4.16 RHR interlocks | 3.4 | 1 |
| 006 Emergency Core Cooling | 97 | | | | | 1 | | | | | | K6.03 pressure > shutoff head | 3.6 | 1 |
| 010 Pressurizer Pressure Control | 91 | 1 | | | | | | | | | | K1.09 channel failure impact | 3.9 | 1 |
| 011 Pressurizer Level Control | 47 | | 1 | | | | | | | | | K3.01 level control effect on CVCS | 3.2 | 1 |
| 012 Reactor Protection | 53 | | | | | | | | 1 | | | A3.04 manual reset switches | 3.3 | 1 |
| 012 Reactor Protection | 81 | 1 | | | | | | | | | | K1.03 OT?T rod stop / runback | 3.7 | 1 |
| 014 Rod Position Indication | 49 | | | | | | | 1 | | | | A2.02 loss of power impact | 3.1 | 1 |
| 016 Non-nuclear Instrumentation | 67 | 1 | | | | | | | | | | k1.01 reactor vessel level | 3.4 | 1 |
| 026 Containment Spray | 79 | | | | | | | | 1 | | | A3.01 monitor pump / valve | 4.3 | 1 |
| 029 Containment Purge | 64 | | | | | | | | | | 1 | 2.1.12 technical specification application | 2.9 | 1 |
| 033 Spent Fuel Pool Cooling | 71 | | | | | | | 1 | | | | A2.03 loss of water impact on SFP | 3.1 | 1 |
| 035 Steam Generator | 56 | | 1 | | | | | | | | | K3.03 steam flow from pipe break | 3.0 | 1 |
| 039 Main and Reheat Steam | 75 | | | | | | | | | 1 | | A4.01 manual operations | 2.9 | 1 |
| 039 Main and Reheat Steam | 89 | | | | | | | | | 1 | | A4.01 power effects on MSIV | 2.9 | 1 |
| 055 Condenser Air Removal | | | | | | | | | | | | | | |
| 062 AC Electrical Distribution | 62 | 1 | | | | | | | | | | K1.02 DG / AC interface | 4.1 | 1 |
| 063 DC Electrical Distribution | 84 | | 1 | | | | | | | | | K3.02 loss of vital DC | 3.5 | 1 |
| 064 Emergency Diesel Generator | 59 | | | | | | 1 | | | | | A1.03 DG parameter control | 3.2 | 1 |
| 073 Process Radiation Monitoring | 95 | | | | | | | | 1 | | | A3.02 release termination | 4.0 | 1 |
| 079 Station Air | | | | | | | | | | | | | | |
| 086 Fire Protection | | | | | | | | | | | | | | |
| K/A Category Point Totals: | 4 | 0 | 3 | 1 | 1 | 1 | 1 | 2 | 3 | 2 | 2 | Group Point Total: | | 20 |

| System # / Name | K1 | K2 | K3 | K4 | K5 | K6 | A1 | A2 | A3 | A4 | G | K/A Topic(s) | Imp. | Points |
|--|--------------------------------|----|----|----|----|----|--------|----|----|----|---|--------------------------------------|--------|--------|
| 005 Residual Heat Removal 82 | | 1 | | | | | | | | | | K2.03 response to PT failure | 2.7 | 1 |
| 005 Residual Heat Removal 100 | | | | | | | | | | 1 | | A4.01 RHR indication | 3.6 | 1 |
| 007 Pressurizer Relief/Quench Tank 73 | | | | | | | | 1 | | | | A2.01 PORV failure effects | 3.9 | 1 |
| 008 Component Cooling Water 98 | | | | | | | 1 | | | | | A1.04 CCW leak indications | 3.1 | 1 |
| 027 Containment Iodine Removal 86 | | | | | 1 | | | | | | | K5.01 charcoal filter use | 3.1 | 1 |
| 028 Hydrogen Recombiner and Purge Control 92 | | | | | | | | | | 1 | | A4.01 recombinder controls | 4.0 | 1 |
| 034 Fuel Handling Equipment | | | | | | | | | | | | | | |
| 041 Steam Dump/Turbine Bypass Control 73 | | | | | | | 1 | | | | | A1.01 steam dump operations | 2.9 | 1 |
| 045 Main Turbine Generator 68 | | | 1 | | | | | | | | | K3.01 loss of main turbine generator | 2.9 | 1 |
| 076 Service Water | | | | | | | | | | | | | | |
| 078 Instrument Air | | | | | | | | | | | | | | |
| K/A Category Point Totals: | 0 | 1 | 1 | 0 | 1 | 0 | 2 | 1 | 0 | 2 | 0 | Group Point Total: | | 8 |
| Plant-Specific Priorities | | | | | | | | | | | | | | |
| System / Topic | Recommended Replacement for... | | | | | | Reason | | | | | | Points | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | |
| Plant-Specific Priority Total: (limit 10) | | | | | | | | | | | | | | |

| Facility: DCPD Units 1/2 | | Date of Exam: April 10, 2000 | | Exam Level: RO | |
|-----------------------------|--------|---|------|----------------|-------|
| Category | K/A # | Topic | Imp. | Points | |
| Conduct of Operations | 2.1.7 | Pant performance & operational judgement | 7 | 3.7 | 1 |
| | 2.1.25 | Interpret performance data | 25 | 2.8 | 1 |
| | 2.1.10 | Facility license condition and limitation | 88 | 2.7 | 1 |
| | 2.1. | | | | |
| | 2.1. | | | | |
| | 2.1. | | | | |
| | Total | | | | |
| Equipment Control | 2.2.22 | Limiting condition for operation | 21 | 3.4 | 1 |
| | 2.2.25 | Technical specification bases | 54 | 2.5 | 1 |
| | 2.2.2 | Manipulate controls (pressurizer heater | 70 | 4.0 | 1 |
| | 2.2.2 | Manipulate controls (control room vent.) | 32 | 4.0 | 1 |
| | 2.2. | | | | |
| | 2.2. | | | | |
| | Total | | | | |
| Radiation Control | 2.3.10 | Reduce personnel exposure | 39 | 2.9 | 1 |
| | 2.3.11 | Control radiation release | 78 | 2.7 | 1 |
| | 2.3. | | | | |
| | 2.3. | | | | |
| | 2.3. | | | | |
| | 2.3. | | | | |
| | Total | | | | |
| Emergency Procedures/ Plan | 2.4.6 | EOP mitigation strategy | 14 | 3.1 | 1 |
| | 2.4.25 | Fire classification | 83 | 2.9 | 1 |
| | 2.4.4 | System operating parameters for EOPs | 61 | 4.0 | 1 |
| | 2.4.8 | EOP usage in mode 4 | 96 | 3.0 | 1 |
| | 2.4. | | | | |
| | 2.4. | | | | |
| | Total | | | | |
| Tier 3 Point Total (RO/SRO) | | | | | 13/17 |

| Facility: DCPD Date of Exam: 4/10/00 Exam Level: SRO | | | | | | | | | | | | | |
|--|-------------|---------------------|-----|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------------|
| Tier | Group | K/A Category Points | | | | | | | | | | | Point Total |
| | | K 1 | K 2 | K 3 | K 4 | K 5 | K 6 | A 1 | A 2 | A 3 | A 4 | G * | |
| 1. Emergency & Abnormal Plant Evolutions | 1 | 2 | 0 | 11 | | | | 3 | 5 | | | 3 | 24 |
| | 2 | 1 | 2 | 5 | | | | 1 | 4 | | | 2 | 16 |
| | 3 | 0 | 0 | 0 | | | | 1 | 2 | | | 0 | 3 |
| | Tier Totals | 3 | 2 | 16 | | | | 5 | 11 | | | 5 | 43 |
| 2. Plant Systems | 1 | 1 | 1 | 1 | 3 | 4 | 2 | 2 | 3 | 1 | 1 | 0 | 19 |
| | 2 | 1 | 1 | 1 | 1 | 2 | 0 | 2 | 5 | 0 | 2 | 2 | 17 |
| | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 4 |
| | Tier Totals | 2 | 2 | 2 | 5 | 6 | 2 | 7 | 10 | 2 | 3 | 2 | 40 |
| 3. Generic Knowledge and Abilities | | | | | Cat 1 | | Cat 2 | | Cat 3 | | Cat 4 | | 17 |
| | | | | | 5 | | 4 | | 4 | | 4 | | |
| <p>Note: 1. Ensure that at least two topics from every K/A category are sampled within each tier (i.e., the "Tier Totals" in each K/A category shall not be less than two).</p> <p>2. Actual point totals must match those specified in the table.</p> <p>3. Select topics from many systems; avoid selecting more than two or three K/A topics from a given system unless they relate to plant-specific priorities.</p> <p>4. Systems/evolutions within each group are identified on the associated outline.</p> <p>5. The shaded areas are not applicable to the category/tier.</p> <p>6.* The generic K/As in Tiers 1 and 2 shall be selected from Section 2 of the K/A Catalog, but the topics must be relevant to the applicable evolution or system.</p> <p>7. On the following pages, enter the K/A numbers, a brief description of each topic, the topics' importance ratings for the RO license level, and the point totals for each system and category. K/As below 2.5 should be justified on the basis of plant-specific priorities. Enter the tier totals for each category in the table above.</p> | | | | | | | | | | | | | |

| E/APE # / Name / Safety Function | K1 | K2 | K3 | A1 | A2 | G | K/A Topic(s) | Imp. | Points |
|---|----|----|----------|----|----|---|--|------------|--------|
| 000001 Continuous Rod Withdrawal / 1 #99 | | | | | 05 | | AA2.05 Plt effects from uncntrl'd Rod W/D | 4.6 | 1 |
| 000003 Dropped Control Rod / 1 #43 | | | | 06 | | | AA1.06 Ability to monitor effect on Tave due to Dropped Rod | 4.1 | 1 |
| 000005 Inoperable/Stuck Control Rod / 1 #6 | | | 06 | | | | AK306 Action in EOPs for Stuck Rod | 4.2 | 1 |
| 000011 Large Break LOCA / 3 #42 | | | | | | 1 | G2.4.22 K/O prioritizing safety functions during Emerg. 55.43(5) | 4.0 | 1 |
| W/E04 LOCA Outside Containment / 3 #73 | .2 | | | | | | EK1.2 K/O EOPs assoc'd with LOCA outside containment | 4.2 | 1 |
| W/E01 & E02 Rediagnosis & SI Termination / 3#12/74 | | | .3 | | .1 | | EK3.3 Manipulation of controls during Emerg. Restart of RCPs EA2.1 Ability to determine the appropriate procedure | 3.9 4.2 | 2 |
| 000015/17 RCP Malfunctions / 4 #71 | | | 07 | | | | AK3.07 K/O reasons for responses to ensure S/G level during Nat. Circ. | 4.2 | 1 |
| BW/E09; CE/A13; W/E09&E10 Natural Circ. / 4 #15/#41 | .1 | | | .3 | | | EK1.1 K/O operational impacts of NC & void inRVLIS EA1.3 Desired Opr'g results during abnormal conditions | 3.4 3.7 | 2 |
| 000024 Emergency Boration / 1 #7 | | | 02 | | | | AK 3.02 Actions contained in EOPs | 4.4 | 1 |
| 000026 Loss of Component Cooling Water / 8 #9 | | | | | | 1 | G2.12 Ability to apply TS for a system | 4.0 | 1 |
| 000029 Anticipated Transient w/o Scram / 1 #5 | | | 12 | | | | EK 3.12 Actions in EOPs for ATWAS | 4.7 | 1 |
| 000040 (BW/E05; CE/E05; W/E12) Steam Line Rupture - Excessive Heat Transfer / 4 #10 | | | .1 | | | | EK3.1 K/O facility operating characteristics and effects on reactivity | 3.9 | 1 |
| CE/A11; W/E08 RCS Overcooling - PTS / 4 #11 | | | | .2 | | | EA1.2 Ability to monitor oper'g behavior as related to PTS | 3.9 | 1 |
| 000051 Loss of Condenser Vacuum / 4 #14 | | | | | 02 | | AAS 2.02 Ability to determine/interpret conditions for Reactor trip | 4.1 | 1 |
| 000055 Station Blackout / 6 #8 | | | 02 | | | | EK3.02 K/O actions in EOPs for SBO; Why stop depressurizing | 4.6 | 1 |
| 000057 Loss of Vital AC Elec. Inst. Bus / 6 | | | | | | | | | |
| 000059 Accidental Liquid RadWaste Rel. / 9 #87 | | | | | | 1 | 2.3.11 Ability to control releases | 3.2 | 1 |
| 000067 Plant Fire On-site / 9 #72 | | | | | 15 | | AA2.15 Reqts for establishing fire watch | 3.9 | 1 |
| 000068 (BW/A06) Control Room Evac. / 8 #13 | | | 18 | | | | AK3.18 Actions in EOPs for CR Evacuation | 4.5 | 1 |
| 000069 (W/E14) Loss of CTMT Integrity / 5 #2 | | | | | .1 | | EA2.1 Facility conditions and selection of appropriate procedures | 3.8 | 1 |
| 000074 (W/E06&E07) Inad. Core Cooling / 4 #1/88 | | | 11 08 | | | | AK3.11 Guidance contained in EOP for ICC EK3.08 Securing the RCPs | 4.4 4.2 | 2 |
| BW/E03 Inadequate Subcooling Margin / 4 | | | | | | | | | |
| 000076 High Reactor Coolant Activity / 9 #98 | | | 05 | | | | AK3.05 K/O corrective actions as a result of High fission products | 3.1 | 1 |
| K/A Category Totals: | 2 | 0 | 11 | 3 | 5 | 3 | Group Point Total: | | 24 |

ES-401

PWR SRO Examination Outline
Emergency and Abnormal Plant Evolutions - Tier 1/Group 2

Form ES-401-3

| E/APE # / Name / Safety Function | K1 | K2 | K3 | A1 | A2 | G | K/A Topic(s) | Imp. | Points |
|--|----|----|----|----|----|---|---|------|--------|
| 000007 (BW/E02&E10; CE/E02) Reactor Trip - Stabilization - Recovery / 1 #37 | | .1 | | | | | EK2.1 K/O interrelations between reactor trip/SI and Auto functions | 3.5 | 1 |
| BW/A01 Plant Runback / 1 | | | | | | | | | |
| BW/A04 Turbine Trip / 4 #38 | | .2 | | | | | EK2.2 K/O Interrelations between reactor trip and proper oper. Of Ht RS. | 3.8 | 1 |
| 000008 Pressurizer Vapor Space Accident / 3 #56 | | | 02 | | | | AK3.02 Exit temperature w/ Open PORV | 4.1 | 1 |
| 000009 Small Break LOCA / 3 #3 | | | | | 01 | | EA2.01 Actions to be taken based upon RCS Pressure | 4.8 | 1 |
| BW/E08; W/E03 LOCA Cooldown - Depress. / 4 | | | | | | | | | |
| W/E11 Loss of Emergency Coolant Recirc. / 4 #4 | | | 12 | | | | EK3.12 Actions in EOPs for Large Brk LOCA | 4.6 | 1 |
| 000022 Loss of Reactor Coolant Makeup / 2 #54 | | | 02 | | | | AK3.02 K/O of responses to Loss of Makeup | 3.8 | 1 |
| 000025 Loss of RHR System / 4 | | | | | | | | | |
| 000027 Pressurizer Pressure Control System #51 Malfunction / 3 | | | | | 04 | | AA2.04 Ability to determine & interpret a PPCS malf. Related to TS limits for RCS pressure 55.43(2) | 3.9 | 1 |
| 000032 Loss of Source Range NI / 7 #55 | | | 01 | | | | AK3.01 K/O reason for SU termination on loss of SR 55.43(2) | 3.6 | 1 |
| 000033 Loss of Intermediate Range NI / 7 | | | | | | | | | |
| 000037 Steam Generator Tube Leak / 3 #52 | | | | | 05 | | AA2.05 Ability to determine & Interp. Past leakage W/ current | 3.3 | 1 |
| 000038 Steam Generator Tube Rupture / 3 #53 | | | 06 | | | | EK3.06 Actions contained in EOPs | 4.5 | 1 |
| 000054 (CE/E06) Loss of Main Feedwater / 4 #50 | | | | 01 | | | AA1.01 Ability to monitor & predict effects of loss of MFW 55.43(5) | 4.4 | 1 |
| BW/E04; W/E05 Inadequate Heat Transfer - Loss of Secondary Heat Sink / 4 #57 | 2 | | | | | | EK1.2 K/O basis of EOPs in Loss of Secondary HS | 4.5 | 1 |
| 000058 Loss of DC Power / 6 | | | | | | | | | |
| 000060 Accidental Gaseous Radwaste Rel. / 9 #47 | | | | | | | G2.3.1 K/O 10CFR20 and facility rad control reqts 55.43(4) | 3.0 | 1 |
| 000061 ARM System Alarms / 7 | | | | | | | | | |
| W/E16 High Containment Radiation / 9 #100 | | .3 | | | | | EK1.3 K/Oannunciators & signals | 3.6 | 1 |
| 000065 Loss of Instrument Air / 8 #49 | | | | | 08 | | AA 2.08 Ability to determine failure mode of air operated equipment | 3.3 | 1 |
| CE/E09 Functional Recovery #60 | | | | | | 1 | G2.4.4 Ability to recognize abnormal conditions which are entry conds to EOP 55.43(2) | 4.3 | 1 |
| K/A Category Point Totals: | 2 | 2 | 5 | 1 | 4 | 2 | Group Point Total: | | 16 |

| System # / Name | K1 | K2 | K3 | K4 | K5 | K6 | A1 | A2 | A3 | A4 | G | K/A Topic(s) | Imp. | Points |
|--|----|----|----|----|----|----------|----|----|----|----|---|--|------------|--------|
| 001 Control Rod Drive #39 | | | | | 10 | | | | | | | K5.10 K/O Opr impact of rod motion on pwr distrib. & temperature | 4.1 | 1 |
| 003 Reactor Coolant Pump #22 | | | | | 05 | | | | | | | K505 K/O oper impact of RCPs on RCS flow | 3.0 | 1 |
| 004 Chemical and Volume Control #21/#65 | | | | | | 10 20 | | | | | | K6.10 K/O BIT Recirc K6.20 K/O Malf. & Demin Temp. | 3.1 3.1 | 2 |
| 013 Engineered Safety Features Actuation#20/92 | | | | | 02 | | | | | 02 | | K5.02K/O safety system logic & reliability A4.02 Ability to reset ESFAS Ch | 3.3 4.4 | 2 |
| 014 Rod Position Indication #34 | | | | | | | | 04 | | | | A2.04 Ability to predict impact of misaligned rod on RPIS | 3.9 | 1 |
| 015 Nuclear Instrumentation #35/ #91 | | | | | 11 | | 01 | | | | | K5.11 K/O Oper. Aspects of NIS & Flux A1.01 Ability to predict heat balance | 3.7 3.8 | 2 |
| 017 In-core Temperature Monitor #64 | | | | 03 | | | | | | | | K4.03 K/O Range of Temp Indication | 3.3 | 1 |
| 022 Containment Cooling #16 | | 01 | | | | | | | | | | K2.01 K/O pwr supplies to CFCUs | 3.1 | 1 |
| 026 Containment Spray #23/#93 | | | | 08 | | | | 08 | | | | K4.08 Swapover to sump A2.08 Ability to secure CS pmps when safe | 4.3 3.7 | 2 |
| 056 Condensate #17 | 13 | | | | | | | | | | | K1.13 K/O cause/effect between Cond & AFW | 2.6 | 1 |
| 059 Main Feedwater #19 | | | | | | | 07 | | | | | A1.07 Ability to Mon./make chgs to MFP speed | 2.6 | 1 |
| 061 Auxiliary/Emergency Feedwater #18 | | | | | | | | 04 | | | | A2.04 Ability to predict & respond to improper operation | 3.8 | 1 |
| 063 DC Electrical Distribution #95 | | | 02 | | | | | | | | | K3.02 K/O Components using DC pwr | 3.7 | 1 |
| 068 Liquid Radwaste #63 | | | | | | | | | 02 | | | A3.02 Ability mon. auto isolation during liq. Rad waste discharge | 3.6 | 1 |
| 061 Aux Feedwater | | | | 04 | | | | | | | | K404 K/O prevention of AFW runout | 3.4 | 1 |
| K/A Category Point Totals: | 1 | 1 | 1 | 3 | 4 | 2 | 2 | 3 | 1 | 1 | 1 | Group Point Total: | | 19 |

| System # / Name | K1 | K2 | K3 | K4 | K5 | K6 | A1 | A2 | A3 | A4 | G | K/A Topic(s) | Imp. | Points |
|---|----|----|----|----|----|----|----|----|----|----|---|---|------------|--------|
| 002 Reactor Coolant #36/#77 | | | | | 14 | | | | | | 1 | K5.14 K/O Opr Impact for loss of forced circulation G2.1.28 K/O purpose and function of major system comp. | 4.2 3.3 | 2 |
| 006 Emergency Core Cooling #24 | | 02 | | | | | | | | | | K2.02 K/O pwr supply to Accum valves | 2.9 | 1 |
| 010 Pressurizer Pressure Control #27 | | | 01 | | | | | | | | | K3.01 K/O effect of malf in PLCS will have on the RCS | 3.9 | 1 |
| 011 Pressurizer Level Control #28 | | | | | | | | 10 | | | | A2.10 Ability to predict impact of lvl instr fails HI | 3.6 | 1 |
| 012 Reactor Protection #25 | | | | | | | | 06 | | | | A206 Ability to predict effect of a loss of trip signal | 4.7 | 1 |
| 016 Non-nuclear Instrumentation | | | | | | | | | | | | | | |
| 027 Containment Iodine Removal | | | | | | | | | | | | | | |
| 028 Hydrogen Recombiner and Purge Control #90 | | | | | | | | | 03 | | | A2.03 Oper. Of HRPS w/ H2/Air Conc. In excess of limit 55.43(5) | 4.0 | 1 |
| 029 Containment Purge #44 | | | | | | | 02 | | | | | A102 Ability to predict impact on sys due to Hi Radiation | 3.4 | 1 |
| 033 Spent Fuel Pool Cooling #96 | | | | | | | 01 | | | | | A1.01 Ability to mon. spent fuel pool level | 3.3 | 1 |
| 034 Fuel Handling Equipment #70 | | | | 02 | | | | | | | | K4.02 K/O design interlocks | 3.3 | 1 |
| 035 Steam Generator #29 | | | | | 03 | | | | | | | K5.03 K/O Oper impact of shrink & swell | 3.1 | 1 |
| 039 Main and Reheat Steam #69 | 07 | | | | | | | | | | | K1.07 K/O connections to AFW | 3.4 | 1 |
| 055 Condenser Air Removal | | | | | | | | | | | | | | |
| 062 AC Electrical Distribution #30 | | | | | | | | 04 | | | | A2.04 Ability to predict impact of deenergizing a bus | 3.4 | 1 |
| 064 Emergency Diesel Generator #26 | | | | | | | | | | | 1 | G2.1.7 Ability to eval plt performance & interpret instruments | 4.4 | 1 |
| 073 Process Radiation Monitoring #89 | | | | | | | | | | 01 | | A4.01 Ability to monitor in CR effluent release | 3.9 | 1 |
| 075 Circulating Water #45 | | | | | | | | 02 | | | | A2.02 Ability to predict impact of a los CWS pmp | 2.7 | 1 |
| 079 Station Air | | | | | | | | | | | | | | |
| 086 Fire Protection | | | | | | | | | | | | | | |
| 103 Containment #68 | | | | | | | | | | 01 | | A4.01 Ability to monitor in CR flow control | 3.3 | 1 |
| K/A Category Point Totals: | 1 | 1 | 1 | 1 | 2 | 0 | 2 | 5 | 0 | 2 | 2 | Group Point Total: | | 17 |

ES-401

PWR SRO Examination Outline
Plant Systems - Tier 2/Group 3

Form ES-401-3

| System # / Name | K1 | K2 | K3 | K4 | K5 | K6 | A1 | A2 | A3 | A4 | G | K/A Topic(s) | Imp. | Points |
|---|----|----|----|----|----|----|----|----|----|----|---|---|------|--------|
| 005 Residual Heat Removal #31 | | | | | | | | 01 | | | | A2.01 Ability to predict impact of and miti. CCW Surge Tnk Hi Level | 2.9 | 1 |
| 007 Pressurizer Relief/Quench Tank #97 | | | | | | | | 05 | | | | A2.05 Ability to predict PRT exceeding press. Limits | 3.6 | 1 |
| 008 Component Cooling Water #33 | | | | | | | | | 08 | | | A3.08 Ability to mon. auto actions upon a SIS | 3.7 | 1 |
| 041 Steam Dump/Turbine Bypass Control #32 | | | | | | | 02 | | | | | A1.02 Ability to predict chg in SDS based on chgs in strn press | 3.2 | 1 |
| 045 Main Turbine Generator | | | | | | | | | | | | | | |
| 076 Service Water | | | | | | | | | | | | | | |
| 078 Instrument Air | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| K/A Category Point Totals: | - | - | - | - | - | - | 1 | 2 | 1 | - | - | Group Point Total: | | 4 |

Plant-Specific Priorities

| System / Topic | Recommended Replacement for... | Reason | Points |
|----------------|--------------------------------|--------|--------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Plant-Specific Priority Total: (limit 10)

| Facility: DCPD | | Date of Exam: 4/10/2000 | | Exam Level: S | |
|--|--------|---|------|---------------|---|
| Category | K/A # | Topic | Imp. | Points | |
| #82 #75 Conduct of Operations #67 #76 | 2.1.2 | K/O Oper. Responsibilities | 4.0 | 1 | |
| | 2.1.4 | K/O Shift Staffing Reqts | 3.4 | 1 | |
| | 2.1.7 | Ability to evaluate Plt perf. & make Oper. Judgements 55.43(5) #59 | 4.4 | 1 | |
| | 2.1.28 | K/O purpose of Major system Components | 3.3 | 1 | |
| | 2.1.32 | Ability to apply system limits 55.43(1,2) | 3.8 | 1 | |
| | Total | | | | 5 |
| #83 #84 Equipment Control #79 #66 | 2.2.8 | K/O process of chg/test is a USQ 55.43(3) | 3.3 | 1 | |
| | 2.2.18 | k/o MANAGING MAINT. ACTIVITIES DURING S/D 55.43(5) | 3.6 | 1 | |
| | 2.2.19 | K/O Maint. Work order rqts 55.43(5) | 3.1 | 1 | |
| | 2.2.25 | K/O basis in TS for LCOs/Safety Limits 55.43(2) | 3.7 | 1 | |
| | Total | | | | 4 |
| #78/#85 #40 Radiation Control | 2.3.1 | K/O 10CFR20 & facility radiation control limits | 3.0 | 2 | |
| | 2.3.6 | K/O rad release permits 55.43(4) | 3.1 | 1 | |
| | 2.3.11 | Ability to control radiation releases | 3.2 | 1 | |
| | Total | | | | 4 |
| #46 #48 Emergency Procedures/ Plan #80 | 2.4.5 | K/O Organization of Oper'g proc. For Emerg Conditions | 3.6 | 1 | |
| | 2.4.8 | K/O Events Based EOPs used w/ symptom based EOPs 55.43(5) | 3.7 | 1 | |
| | 2.4.26 | K/O facility prot. Reqts including Fire Prot. #81 | 3.3 | 1 | |
| | 2.4.40 | K/O SRO respons. In E-Plan 55.43(5) | 4.0 | 1 | |
| | Total | | | | 4 |
| Tier 3 Point Total (SRO) | | | | 17 | |

Comments on DC Exam Outlines

1. Scenarios; not all malfunctions applicable to DC. Licensee will revise and submit with proposed exam package.
2. Op test 1, Section A.1; there should be two JPMs which discriminate at the RO/SRO levels.
3. OP test 1, Section A.3, Need to have either 2 questions for the RO & SRO that discriminate between the two or a JPM both are required to perform in the RCA.
4. OP test 1, Section A.4: Should have the SRO perform a task in the JPM such as determine the EAL and fill out the notification form. (Distinction between a question and a task at the SRO level). Since, the RO applicants don't have much responsibility in the EP area; they should have 2 questions instead.