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CONWAY,W.F.	Florida Power & Light Co.		
RECIP.NAME	RECIPIENT AFFILIATION		
GRACE,J.N.	Region 2, Ofc of the Director		

SUBJECT: Forwards mgt-on-shift weekly rept.

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NOTES: *see Reports*

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...and the fact that the *Journal* is a journal of the American Psychological Association, the largest and most influential of the professional organizations in the field of psychology, is a testament to the journal's impact on the field of psychology.



MAY 11 1988

L-88-217

Dr. J. Nelson Grace
Regional Administrator, Region II
U.S. Nuclear Regulatory Commission
101 Marietta Street, N. W., Suite 2900
Atlanta, Georgia 30323

Re: Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
Management-on-Shift Weekly Report

Dear Dr. Grace:

Pursuant to the Nuclear Regulatory Commission Order dated October 19, 1987, the attached summary of Management-on-Shift (MOS) reports is submitted.

Should there be any questions on this information, please contact us.

Very truly yours,

W. F. Conway
Senior Vice President - Nuclear

WFC/SDF/gp
Attachment

cc: J. Lieberman, Director, Office of Enforcement, USNRC
Dr. G. E. Edison, Project Manager, NRR, USNRC
Senior Resident Inspector, USNRC, Turkey Point Plant
R. E. Tallon, President, FPL

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MANAGEMENT ON SHIFT (MOS)

WEEKLY SUMMARY REPORT

WEEK STARTING: 05/02/88

PAGE 1 OF 2

Five MOS Observers were on shift. Russ Goulby, PE, Principal Engineer-Nuclear Licensing JB (05/02-08/88, days); Peter L. Walker, Westinghouse Electric Corporation (05/02-09/88, evenings); R. J. Earl, Turkey Point Quality Control Supervisor (05/02-05/88, evenings); Bruce Sharp, Turkey Point Total Quality Control Coordinator (05/05-09/88, evenings); and Max A. Ammerman, Turkey Point INPO HPES Coordinator (05/08-09/88, evenings).

Unit 3 operated at 100% power throughout the period.

Unit 4 was in a maintenance outage throughout the week.

No immediate safety problems were reported by MOS Observers during the reporting period.

Ten questionable work practices were identified by MOS Observers during the reporting period.

Five of these concerned personnel safety items dealing with the usage of ladders, scaffolds, safety equipment and area markings.

Three concerns dealt with coordination of work activities noting: clearance boundary points used on Unit 4 Condenser Water Box Priming Air Ejector work, valving out of the warehouse firemain, and attempted additional cooling of the Feedwater Pump Room air flow path.

One concern identified the absence of a data sheet during the performance of a surveillance.

The final item was a recommendation to annotate chart recorders with changes in their status.

During the reporting period the MOS Observers noted twenty-five recommendations and areas for improvement. These comments and suggestions involved:

Nine comments concerning procedure usage, changes and improvements such as standardization of nitrogen bottle changeout procedures, contractor use of FPL procedures and the process for locating airborne radioactivity sources.

ATTACHMENT: MOS DAILY REPORTS

8806030083

MANAGEMENT ON SHIFT (MOS)

WEEK STARTING: 05/02/88

WEEKLY SUMMARY REPORT

PAGE 2 OF 2

Nine comments dealt with equipment status identifying such things as Main Steam Line Restraining Cable preservation, Feedwater Regulating Valve/Feedwater Bypass Valve Position Limit Switch operation, and Water Treatment Plant Instrumentation operability and system availability.

Seven miscellaneous comments were made concerning items such as chemical burn station supplies, need for an additional eye wash station near the Diesel Fire Pump Room, temporary services running between Units 3 and 4, tools, cables, etc. left out after completion of work, and changes in Control Room Logs.

During the reporting period the Plant Supervisor-Nuclear (PSN) MOS reporting program continued. The PSN-MOS reports did not identify any immediate safety problems.

The PSNs identified four questionable work practices during this reporting period. These items were associated with: the use of data sheets during the performance of a surveillance procedure, coordination of painters' activities, control of work on Unit 4 Condenser Water Box Priming Air Ejector, and the attendance of Control Room pre-shift briefings.

Additionally the PSNs identified nine areas for improvement. These areas included: requests for procedure clarifications and changes, recommendations for the coordination of maintenance related paperwork, and security guard attentiveness.

ATTACHMENT: MOS DAILY REPORTS

Wkly

0-ADM-019

Management on Shift (MOS)
MOS DAILY REPORT

Page

1

To: Operations Superintendent - Nuclear

Date: 05/02/88

From: Russell Gouldy
(MOS Observer)

Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- End of night shift meeting
- Troubleshooting Unit 3 Steam Generator Blowdown Vent Valve failing open
- Shift meeting day shift
- Draining Unit 4 Reactor Coolant System to mid-nozzle
- Grass removal from Circulating Water Intake
- End of day shift meeting
- Start of peak shift meeting

B. Immediate safety problems

None

C. Questionable work practices

None

D. Area(s) for improvement

Unit 4 operators discussed that steps in the cold shutdown procedure, ADM-103.32, Reactor Cold Shutdown Conditions, contained operating steps, i.e., 8.17.26.2 Accumulator level. These steps provide the method to vent the Accumulators. However, no mention is made of the normal operating procedure which has several additional steps.

Procedure Upgrade Program was asked to delete operating steps and instead send user to the normal procedure.

E. Professionalism, Summary of Shift, Comments

1. At the end of the night shift, during shift change, the Unit 3 blowdown Flash Tank Vent Valve failed open and it appears that one or two check valves that isolate 4B and 4A Feedwater Heaters leaked backfeeding the vent with steam. 12 MWE was lost. Excellent coordination in troubleshooting this failure and isolating it during a shift change.
2. Training briefs are now under the control of the PSN. He must assure his shift is briefed prior to taking shift. However, there is not a good method of controlling sign-offs and when the shifts are of mixed personnel. It appears *a master sign off is needed.

*I am not making a recommendation, but possibly 6 sets of paperwork/training briefs may be hard to manage.

F. Recommendations

None for this day.

Completed By: Russell Gouldy
MOS Observer

Date: 05/02/88

Reviewed By: L. W. Pearce
Operations Superintendent- Nuclear

Date: 5/3/88

Management
Review By:

W. P. CSB 1 5/3/88 VP 1 5/3/88
PM/N Date SVP Date VP Date
05/02/88

0-ADM-019

Management on Shift (MOS)
MOS DAILY REPORT

Page

1

To: Operations Superintendent - Nuclear

Date: 05/02-03/88

From: Peter L. Walker
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3, 100 steady state
- Unit 4, Mode for Pressurizer spray valve repairs

B. Immediate safety problems

None

C. Questionable work practices

None

D. Area(s) for improvement

None

E. Professionalism, Summary of Shift, Comments

No comment

F. Recommendations

None

Completed By: Peter L. Walker
MOS Observer

Date: 05/02-03/88

Reviewed By: L. W. Parke
Operations Superintendent - Nuclear

Date: 5/3/88

Management Review By: L. W. Parke 15/3/88 MD 15/3/88
PM-N Date SVP Date VP Date



0-ADM-019

Management on Shift (MOS)
MOS DAILY REPORT

Page

1

To: Operations Superintendent - Nuclear

Date: 05/02-03/88

From: Rob J. Earl
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- End of shift meeting
- Shift turnover
- Troubleshooting Pressurizer Spray Valve PCV-455A & B Isolation problem
- Walkdown, secondary plant

B. Immediate safety problems

None noted

C. Questionable work practices

None noted

D. Area(s) for improvement

None noted

E. Professionalism, Summary of Shift, Comments

Peak shift APSN held a very informative end of shift meeting.

Mid shift Health Physics Shift Supervisor performed a very thorough pre job brief with Mechanical Maintenance personnel about to disassemble spray valves PCV 455 A&B.

F. Recommendations

None

Completed By: Rob J. Earl
MOS Observer

Date: 05/02-03/88

Reviewed By: L.W. Pearce
Operations Superintendent - Nuclear

Date: 5/3/88

Management
Review By:RP/MSB 1 5/3/88 MD 15/3/88
PM-N Date SVP Date VP Date

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Date Started 05/02/88

PSN MOS

Date Finished 05/02/88

Initiating PSN Schimkus PSN Completed PSN Schimkus

Initiating APSN Murphy APSN Completed APSN Murphy

A. Questionable Work practices/Actions Taken/Recommendations

1. Chemistry Lab personnel did not show up for pre-shift briefing at 1545 in Control Room. Recommend they be re-informed of this responsibility in order to be able to coordinate their work activities with other departments on the shift.

B. Areas for Improvement/Recommendations/Actions Taken

1. Unit 4 Steam Generator lay up spectacle flanges were reversed on today's day shift to allow wet layup operation. On peak shift a new set of mechanics were assigned to reverse the spectacle flanges which re-installed the blank flanges.
-Notified shift director of problem.
-Recommend PWO be closed out once work is complete.
2. 3C Steam Generator blowdown was secured on dayshift due to problems with Valve CV-6275C not opening. I&C could not repair on peak shift due to lack of personnel with repair experience on Target-Rock Solenoids.
-Recommend training of each shift of I&C Specialists on Target-Rock Solenoids.

C. Good Practices/Professionalism Observed

1. Nuclear Operators were assigned the task to try and stop the problem leakage on Pressurizer Spray Valve CV-455B which has been holding up repair activities due to a greater than 5 GPM leak from drain on CV-455B. After conferring with NO's on possible solutions, they torqued down on Spray Isolation Valves 572/573 which reduced leakage to approximately 2 gallons per hour. This should allow the repair to proceed.

Reviewed By L.W. Parry Date 5/3/88 Actions Completed _____ Date _____

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Date Started 05/02/88

PSN MOS

Date Finished 05/02/88

Initiating PSN Salkeld PSN _____ Completed PSN Salkeld

Initiating APSN Reese APSN _____ Completed APSN Reese

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

None

C. Good Practices/Professionalism Observed

None

Reviewed By L.W. Fance Date 5/3/88 Actions Completed _____ Date _____

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Date Started 05/02/88

PSN MOS

Date Finished 05/03/88

Initiating PSN Wogan PSN _____ Completed PSN Wogan

Initiating APSN Singer APSN _____ Completed APSN Singer

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

None

C. Good Practices/Professionalism Observed

Yes

Reviewed By S.W. Pearson Date 5/3/88 Actions Completed _____ Date _____

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0-ADM-019

Management on Shift (MOS)
MOS DAILY REPORT

Page

1

To: Operations Superintendent - Nuclear

Date: 05/03/88

From: Russell Gouldy
(MOS Observer)

Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- ° End of Night Shift Meeting
- ° Unit 3 Reactor Protection Surveillance Procedure OSP 49.1
 - A. Reactor Trip Relay RT-6 failure
 - B. Fire Team Activation in response to RT-6 failing and smoking
 - C. Failure of SRO to follow procedure by not completing Appendix of Surveillance
 - D. Reactor Coolant (RC) relay not completely making up.
- ° Auxilliary Building Inspection
- ° End of Day Shift and Start of Peak Shift Meetings

B. Immediate safety problems

None

C. Questionable work practices

1. Following procedures
 - A. During Reactor Protection Surveillance the SRO did not perform Appendix A which verifies Annunciators, status lights and computer print out of reactor trip logic actuation.
 - B. Heat Tracing Recorder 73 was out-of-service at around 8:30 AM. During Auxilliary Building tour at 12:00, no indication or notes were provided on recorder paper to indicate that all 24 channels reading approximately 135° (below minimum required) were out-of-service, the Electrical Department had a separate log of heat trace readings.

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0-ADM-019	Management on Shift (MOS) MOS DAILY REPORT	Page 2
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D. Area(s) for improvement

None

E. Professionalism, Summary of Shift, Comments

1. Excellent response of Fire Team and Plant Security to the relay failure in the cable Spreading Room.
 - A. Fire Team members were in action in minutes.
 - B. Security had access doors open with additional guards logging personnel in the same quick time frame.
 - C. There was no actual fire just a "smoked relay coil". If a fire had occurred, these actions would have assured quick control and extinguishment.

F. Recommendations

1. Recorder logs (chart paper) need any abnormal events or out-of-service periods logged for adequate traceability at later dates. This also allows for verification of Technical Specification requirements such as in the case of the Heat Tracing circuits.

Completed By: Russell Gouldy Date: 05/03/88
MOS Observer

Reviewed By: Operations Superintendent- Nuclear Date: _____

Management Review By: PM-N 1 Date SVP 2 Date VP 1 Date
05/03/88

To: Operations Superintendent - Nuclear

Date: 05/03-04/88

From: P. L. Walker

(MOS Observer)

Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3: 100% Steady State Operation
Reactor Protection Test - Relay repair and retest.
- Unit 4: Mode 5 - Vented and Drained to mid-nozzle - Steady State.
Spray Valve repairs underway

B. Immediate safety problems

None

C. Questionable work practices

None

D. Area(s) for improvement

None

E. Professionalism, Summary of Shift, Comments

Reactor Protection Test, troubleshooting of problem which was detected, and retesting was performed in an efficient, well-coordinated manner. The entire process was completed well within the Technical Specification Limiting Condition of Operation Action Statement time period.

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F. Recommendations

1. Apply a protective coating on the carbon steel restraining cables for Main Steamline Piping - corrosion of these is well evident. I was verbally informed that the evident degradation had been evaluated and found to be acceptable, but it is still ongoing and should be stopped. (I don't know when the evaluation was performed.)
2. I also investigated an inconsistency in Stem-Mounted Limit Switch Valve Indication on Main Feedwater and Bypass Feedwater Regulating Valves (Unit 3), and found the following:
 - A. Specifications for Limit Switches are not to be found in the Control Room, and it took me 3 hours to find someone on mid-shift who could tell me how they operated and their setpoints.
 - B. Operators do not trust the Limit Switch Indications, which should be the most reliable method of determining valve closure following feedwater isolation, because they have historically been inconsistent and inaccurately set. Several Operators were unsure of how the Limit Switches operated. Newer Operators use the lights for checking valve status - older ones check flow to determine valve position.
 - C. Calibration of all six valves (both units) needs to be done.

Completed By: Peter L. Walker
MOS Observer

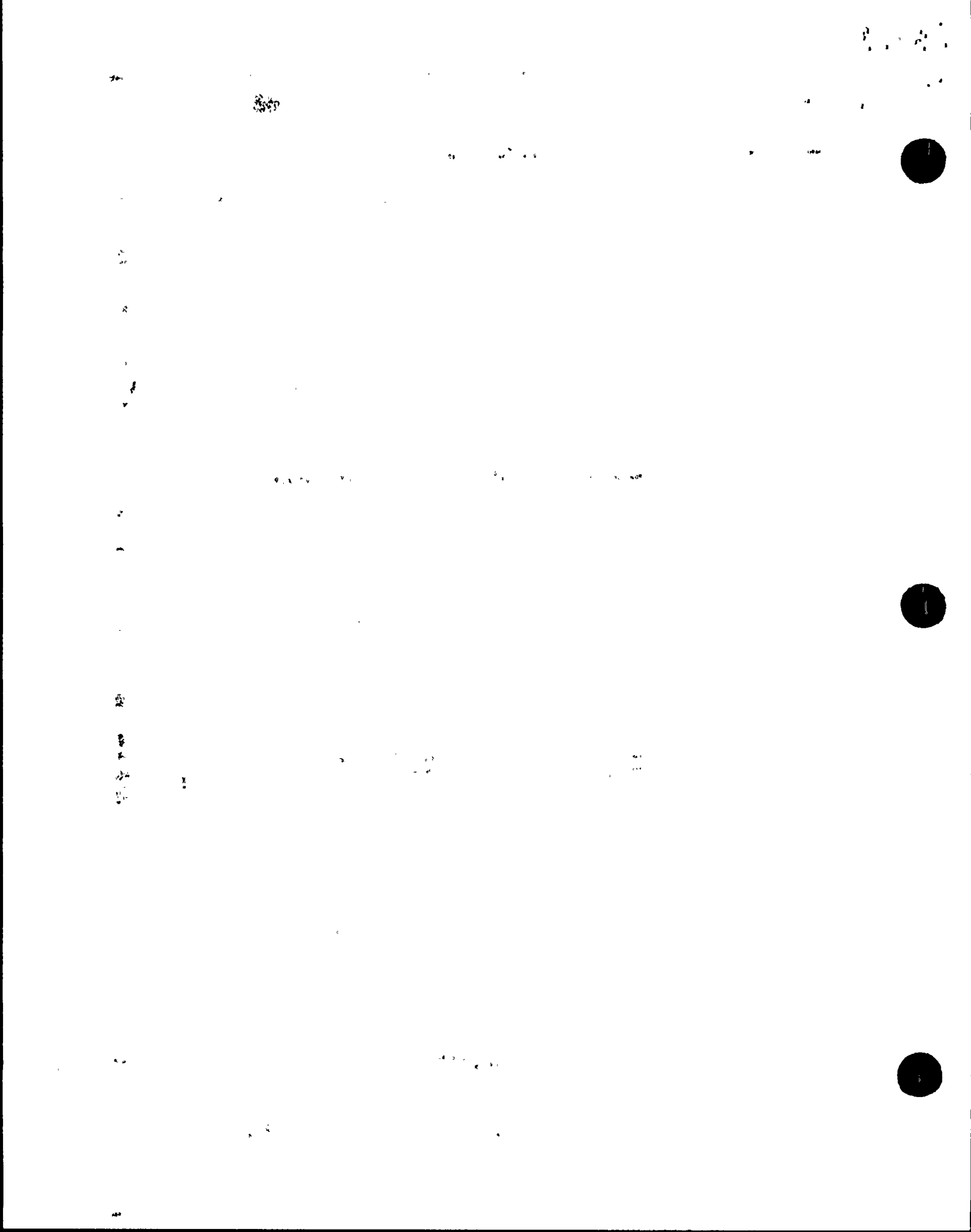
Date: 05/03-04/88

Reviewed By: Operations Superintendent- Nuclear

Date: _____

Management
Review By:

PM-N 1 Date SVP 4/28 1 Date VP 1 Date
05/03-04/88



0-ADM-019

Management on Shift (MOS)
MOS DAILY REPORT

Page

1

To: Operations Superintendent - Nuclear

Date: 05/03-04/88

From: R. J. Earl

(MOS Observer)

Shift: ☐ Day
☒ Night**A. Plant evolutions observed**

- Plant tour
- Shift turnover
- Troubleshooting Unit 3 Reactor Protection Relay Problem by I&C
- Reassembly of Unit 4 PCV 455 A & B (Pressurizer Spray Valves)
- Replacement of Unit 4 Component Cooling Water Heat Exchanger Channel Heads

B. Immediate safety problems

None noticed

C. Questionable work practices

None noted

D. Area(s) for improvement

None noted

E. Professionalism, Summary of Shift, Comments

Backshift maintenance group supervision is keenly aware of plants goal for personnel exposure and are making every effort to minimize exposures. They are carefully preplanning their activities and ensuring everything is ready before people enter radiation areas.

F. Recommendations

None

Completed By: R. J. Earl
MOS Observer

Date: 05/03-04/88

Reviewed By: Operations Superintendent - Nuclear

Date: _____

Management
Review By:PM-N 1 Date 5/3 SVP 5/3 Date 5/3 VP 1 Date 5/3

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Date Started 05/03/88

PSN MOS

Date Finished 05/03/88

Initiating PSN Schimkus PSN _____ Completed PSN Schimkus

Initiating APSN Murphy APSN _____ Completed APSN Murphy

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

None

C. Good Practices/Professionalism Observed

Operators performed all duties in a professional manner. Made a good progress towards Unit 4 Fill and Vent.

Reviewed By _____ Date 6 Actions Completed _____ Date _____

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PSN MOS

Date Started 5-3-88

Date Finished 5-3-88

Initiating PSN P. Salkeld PSN _____ Completed PSN P. Salkeld

Initiating APSN _____ APSN _____ Completed APSN _____

A. Questionable Work Practices/Actions Taken/Recommendations

During the performance of the Reactor Protection Test a NOTE and two conditional statements were missed. This appears to be a combination of human error and a human factors problem. The errors were discussed at length with all concerned. One of the errors was found during the test. It was decided at that time to continue that section to completion and then review the documentation to determine if all required information was documented; (an attachment had not been used to record the results.) It was felt that this would be the most prudent way to return the system to normal configuration. While completing the section a Reactor Trip relay burned up. When the relay was repaired, the section in which improvement were tasked with writing a request for procedure change.

B. Areas for Improvement/Recommendations/Actions Taken

None

C. Good Practices/Professionalism Observed

During performance of the Reactor Protection Test, periodic smoke was observed coming from the back of Reactor Protection Rack 33. This was reported to the Control Room Operator who sounded the Fire Alarm. The Fire Team arrived fully equipped at the Cable Spreading Room within five minutes, an excellent response.

Reviewed By SWP Date 5/6/88 Actions Completed _____ Date _____

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Date Started

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05/04/88

PSN MOS

Date Finished 05/04/88

Initiating PSN Jones PSN Completed PSN Jones

Initiating APSN Haley APSN Completed APSN Haley

A. Questionable Work Practices/Actions Taken/Recommendations

Unit 3: Condensate Pump area and east of water boxes

-15 fire nozzles covered with plastic bags and wired.

Recommend: Only cover prior to painting and then immediately remove cover.

Unit 4: Suction piping to Condensate Pumps have been sandblasted, but not painted (looks like it was overlooked).

B. Areas for Improvement/Recommendations/Actions Taken

Unit 3: Condensate Pit area is full of sand from sandblasting.

Painters do not remove covers on level instruments, pressure gages, etc. when painting is complete.

C. Good Practices/Professionalism, Observed

Reviewed By SWP Date 5/6/88 Actions Completed _____ Date _____

Wklg

0-ADM-019

Management on Shift (MOS)
MOS DAILY REPORT

Page

1

To: Operations Superintendent - Nuclear

Date: 05/04/88

From: Russell Gouldy
(MOS Observer)

Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- End of Night Shift Meeting
- Auxilliary Feedwater Pump Surveillance
- Start of Peak Shift Meeting
- Unit 3 Reactor Protection Surveillance

B. Immediate safety problems

None

C. Questionable work practices

None

D. Area(s) for improvement

1. Following procedures:
Auxiliary Feedwater Pump surveillance was performed in accordance with Administrative Procedures and its OSP. However, an OTSC was almost not incorporated prior to start of this test.
 - A. The RO responsible for this surveillance held a pre-planning meeting with all involved; (approximately 8 Operators and Engineers).
 - B. Hand held radios were utilized and tested for communications.
 - C. The RO did not check for all OTSCs, PWOs or other interferences that could have prevented completion of this surveillance.
2. I counted 213 PWO's on the control panels, console and flux mapper - 6 months ago, 180.

E. Professionalism, Summary of Shift, Comments

I discussed the use of procedures at the peak shift meeting. Outlining today's near violation and yesterday's Reactor Protection Surveillance procedure problem.

1. Discussed the role and responsibility of the operator who runs the procedure. Pre-review of the procedure.
2. Areas to check
 - A. OTSC
 - B. Clearances
 - C. PWO's
3. Then hold the pre-planning meeting.

F. Recommendations

None

Completed By: Russell Gouldy
MOS Observer

Date: 05/04/88

Reviewed By: *[Signature]*
Operations Superintendent- Nuclear

Date: 5/5/88

Management Review By: *[Signature]* 15/5/88 *[Signature]* 15/5/88 *[Signature]* 15/5/88
PMN Date SVP Date VP Date
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To: Operations Superintendent - Nuclear

Date: 05/04-05/88

From: P. L. Walker
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3, 100% Steady State Operation
- Unit 4, Mode 5 Steady State Operation

B. Immediate safety problems

None

C. Questionable work practices

Work was performed on Unit 4's Condenser Water Box Priming Jets during day shift, without proper clearances being hung. Low pressure steam line was not isolated. The jet was completely dismantled and found to be leaking.

D. Area(s) for improvement

None

E. Professionalism, Summary of Shift, Comments

No comment, quiet night.

F. Recommendations

None

Completed By: P. L. Walker
MOS Observer

Date: 05/04-05/88

Reviewed By: [Signature]
Operations Superintendent - Nuclear

Date: 5/5/88

Management Review By: [Signature] 15/5/88 [Signature] 15/5/88
PM-N Date SVR Date VP Date

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To: Operations Superintendent - Nuclear

Date: 05/04-05/88

From: R. J. Earl
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Shift briefings
- Plant tour
- 4A Component Cooling Water Heat Channel Head Replacement
- Unit 4 Source Range Nuclear Instrumentation Periodic Test

B. Immediate safety problems

None noted

C. Questionable work practices

None noted

D. Area(s) for improvement

Need to standardize/clarify Operator's actions when Auxiliary Feedwater Nitrogen Backup Bottles are found to be low. OSP-75.6 Auxiliary Feedwater Train 1 Backup Nitrogen Test step 7.3.4. requires any nitrogen bottle less than 1800 psig have a PWO written for it's replacement. OP-65.2 Auxiliary Feedwater and Main Steam Isolation Valve Backup Nitrogen Gas supply system step 4.11 says that changing out depleted bottles is a routine operator function and a PWO is used to replenish the spare bottle rack. Operators are unsure of management's position on who should change bottles. Most agree with OP-65.2 but some concern exists as to sufficient direction since OP-65.2 lists this under Precautions/Limitations and not an actual action step.



E. Professionalism, Summary of Shift, Comments

Previous PSN-MOS report (Wogan/Singer, 4/30/88) cited a concern over the large number of procedure changes many of which were classified as "nice to have" which puts a burden on the operators to review.

Most operators contacted over the past three days (3 different shift crews) agreed that it is somewhat of a burden but more so appreciated the responsiveness of the on-shift PUP personnel in addressing their concerns in such a timely manner. The previous report suggests the use of a screening method for procedure changes. On-shift PUP personnel work with the operators to determine when an item warrants an OTSC or if it can be processed as a procedure feed back and incorporated with future changes as an enhancement.

Procedure change verification/validation is performed by the two people approving an OTSC and by the cognizant department who approves the procedure review form when the change is made permanent and by the PNSC when finally approved.

The above discussion should resolve the concern of how procedure changes are screened and approved in the before referenced PSN-MOS report.

F. Recommendations

1. Provide clarification to operators on responsibilities on changing out Nitrogen bottles.
2. Evaluate need to clarify procedures (OSP-75.6 and OP-65.2) on bottle change out.

Completed By: R. J. Earl
MOS Observer

Date: 05/04-05/88

Reviewed By: [Signature]
Operations Superintendent- Nuclear

Date: 5/5/88

Management Review By: [Signature] CSB 15/5/88 [Signature] 15/5/88
PM-N Date SVP Date VP Date

05/04-05/88

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Date Started 05/04/88

PSN MOS

Date Finished 05/04/88

Initiating PSN Schimkus PSN _____ Completed PSN Schimkus

Initiating APSN Murphy APSN _____ Completed APSN Murphy

A. Questionable Work Practices/Actions Taken/Recommendations

1. Unit 4 Nuclear Turbine Operator (NTO) discovered 4AN, Condenser Water Box Priming Ejector completely unbolted from piping with live steam issuing from the now open system. No clearance was on system when NTO discovered discrepancy. PSN investigated this occurrence followed by hanging clearance on steam supply (250 psig steam).

Actions: Notified Mechanical Foreman of discrepancy. He informed the PSN that no one on peak shift assigned to this job. The PSN requested Mechanical Foreman notify his Supervisor. PSN Notified Operations Supervisor.

B. Areas for Improvement/Recommendations/Actions Taken

1. Auxilliary Feedwater System Engineer informed PSN, that on dayshift INPO had question on the validity of Unit 3 Auxilliary Feedwater Backup Nitrogen Test, 3-OSP-075.6. There was insufficient information in the procedure to alert the field operator when to start stopwatch for nitrogen consumption monitoring. The PSN reviewed procedure and found that this was indeed a valid concern.

Actions taken: Peak shift PSN invalidated test, requested OTSCs be generated to give field operator direct time when to commence nitrogen consumption timing. Notified Operations Supervisor and Technical Department Supervisor for concurrence.

Recommendations: Set up an Operations/PUP/System Engineer team which would be responsible for all safety system procedures, especially those concerned with surveillance testing our sensitive (all) Engineered Safety Feature equipment. Procedures will be reviewed, walked down and thoroughly tested prior to implementation, on units. The Operator assigned will be one whose job task involves the subject procedure, for example, Emergency Diesel Generator procedures reviewed by the Nuclear Turbine Operator (NTO) or Containment Spray procedures reviewed by SNPO/NO.

Note: We need adequate operators to enable this recommendation.

2. Tested Source Range Nuclear Instrument N-31 (Unit 4) at request of Operations Supervisor. This was due to a concern that the 4-OSP-059.1 acceptance criteria (for counts recorded) applies to drawer meter, console meter and NR-45 recorder. If any of these indications is outside of acceptance criteria the test is unsatisfactory.

Actions taken: Tested N-31 and it failed acceptance criteria on drawer indication - compiled to actions required by ONOP, Technical Specifications, and ADM-021.

Recommendations:

- a. Dedicate any 2/3 instruments to be used for operability check "or" dedicate the drawer indication as sole instrument for acceptance criteria.
- b. Widen the acceptance criteria band when selected to the 60 counts per second position. Detector noise causes meter bounce which can vary by 50-60 counts per second in either direction "or" incorporate an electronic method to smooth out indication in the lower neutron count ranges.

Reviewed By _____ Date _____ Actions Completed _____ Date _____

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PSN MOS

Page

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Continuation Page

Page 2 of Section B

Date: May 5, 1988

3. Procedure Inconsistency:

3/4-OSP-075.6 and 3/4-OSP-075.7 step 4.12 states that a PWO shall be submitted to change nitrogen cylinders whenever a cylinder is removed from service due to low pressure. 3/4-OP-065.2 step 4.5 states: Replacing low pressure/out-of-service bottles with fully charged bottles from the spare bottle rack is a routine operator function requiring no procedure. However, submit a PWO immediately to replace bottles utilized from the spare rack inventory.

4. 3/4 OP-065.2 step 4.8 requires 1700 psig minimum inservice bottle pressure. 3/4 OSP-075.6 and 3/4 OSP-075.7 step 3.4 require minimum pressure to be 1600 psig.

C. Good Practices/Professionalism Observed

1. NTO on Unit 4 questioned if temporary Ecolochem hook up to Demineralized Water Storage Tank (fire hose) would be affected by performing a Standby Feedwater Pump Periodic Test. Reason for concern is that the Standby Feedwater Pump discharge pressure is approximately 1100 psig and this would be on the recirculation line which [discharges to the Demineralized Water Storage Tank. Concern was resolved prior to testing.]

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Date Started' 05/04/88

PSN MOS

Date Finished 05/04/88

Initiating PSN Salkeld **PSN** **Completed PSN** Salkeld

Initiating APSN Guyer APSN _____ Completed APSN Guyer

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

None

C. Good Practices/Professionalism Observed

Good

Reviewed By _____ **Date** _____ **Actions Completed** _____ **Date** _____

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Date Started' 5-4-88

PSN MOS

Date Finished 5-5-88

Initiating PSN Jones PSN Completed PSN Jones

Initiating APSN Haley **APSN** **Completed APSN** Haley

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvements/Recommendations/Actions Taken

None

C. Good Practices/Professionalism Observed

None

Reviewed By AWP Date 5/6/18 Actions Completed _____ Date _____

To: Operations Superintendent - Nuclear

Date: 5/5/88From: Russell Gouldy
(MOS Observer)Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- ° End of shift meeting for night shift
- ° Morning planning meeting
- ° Auxiliary Feedwater Nitrogen Backup surveillance
FCV-2818 failed due to cycling
- ° End of day and start of peak shift meeting
- ° Water Treatment Plant walkdown

B. Immediate safety problem

None

C. Questionable work practices

None

D. Area(s) for improvement

- ° Water Treatment Plant Instrumentation
 - Flow meters (Rotometers) are unreadable on the on the Filter Banks so backflushing can not be regulated.
 - PWO's have been deleted as this is a preventive maintenance not a corrective maintenance task. However, the flow meters are not usable in their condition.
 - Effluent Control Trip Valve is out-of-service because its Recorder (No. 85) is out-of-service.
 - There has been a continuous repair item.
- ° The Water Treatment Plant availability has been very low and water purification is being provided by temporary trailers.

E. Professionalism, Summary of Shift, Comments

Previous Peak Shift completed all but one of the tasks for all stations that were discussed at the shift meeting. This is a sign of good organization and follow through by all levels of operators.

F. Recommendations

- ° Replace Recorder #85 and Rotometers.

Completed By: Russell Gouldy
MOS Observer

Date: 5/5/88

Reviewed By: *[Signature]*
Operations Superintendent - Nuclear

Date: 5/6/88

Management Review By: *[Signature]* 15/6/88
PM-N Date SVP Date VP Date

5/5/88

To: Operations Superintendent - Nuclear

Date: 5/5 - 5/6/88

From: P.L. Walker
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3:
- 100% steady state operation - action level 1 due to steam generator "C" Chemistry.
- Unit 4:
- Mode 5 steady state operation - drained to mid nozzle.
- An Unusual Event was declared at 0225 due to a security alert. A security guard intercepted several strangers while patrolling a remote location on site. Many shots were exchanged and the security guard exited the area towards the north gate. This Unusual Event will be terminated when the Security Alert is lifted.

B. Immediate safety problems

None

C. Questionable work practices

None

D. Area(s) for improvement

None

E. Professionalism, Summary of Shift, Comments

The operating crew did an absolutely outstanding job of implementing the security plan. Gordon Jones was the PSN, Bill Haley was the APSN, Mike Matazewski was the Watch Engineer, and Bruce Adams, John Lovell and Kurt Kruger were the Reactor Operators. Wendell Prevatt was an SRO candidate trainee, and the STA was Paul Roach. Haley and Matazewski did most of the notifications, using previously prepared forms in a smooth efficient manner. The control room was quiet, controlled, and the tension level (while evident) was very well minimized.

F. Recommendations

Keep up the good work!

Completed By: P.L. Walker
MOS Observer

Date: 5/6/88

Reviewed By: *W.P. Roach*
Operations Superintendent - Nuclear

Date: 5/6/88

Management Review By: *W.P. Roach* 5/6/88
PM-N Date SVP Date VP Date



To: Operations Superintendent - Nuclear

Date: 5/5 - 5/6/88

From: Bruce T. Sharp
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3 100% power
 - Auxiliary Feedwater Testing CV-2818 oscillating and troubleshooting.
 - Blowdown valve 6275C repairs
- Unit 4 cold shutdown
 - Calibration N-31 (Source Range Nuclear Instrument)
 - Testing of PCV-455B (Pressurizer Spray Valve)
 - RC-4-715 rebuild
 - 4A Component Cooling Water (CCW) Heat Exchanger (HX) work.
- Shift turnover and briefing
- Emergency plant activation
 - Plant on an Unusual Event/Security Alert.
- Tour Control Room, Auxiliary Building, Radwaste Building, Radiation Control Area, Turbine Deck, Intake Water, Treatment Plant.

B. Immediate safety problem

None

C. Questionable work practices

- Construction craft working on 4A CCW HX greater than 10 feet off the ground were not wearing safety belts. Notified the Start-Up Supervisor on the scene who took care of the problem.
- Construction craft working on southside of outside Control Room wall at Turbine Deck level were observed climbing over hand rail and walking on piping to get to scaffolding along wall.
- Unit 3 lay down area caution tape running east and west does not define the caution area. Notified NPS on peak shift.
- Ladder on the side of the diesel driven fire pump is only secured at the bottom of the ladder, top of the ladder should be secured and if readings on the top of the tank are to be required a permanent platform should be erected.

D. Area(s) for improvement

- Screen Wash System does not appear to be doing an effective job of removing debris as apparent by clumps of grass getting past screens.
- Wherry pit appears to have holes still below the water line.
- Rad Waste Building north/south hallway chemical burn station does not have neutral PH solution. Health Physics Shift Supervisor notified.
- Diesel driven fire pump batteries are wet cells and require testing on a periodic bases; but the closest eye wash station is in the chemical storage area of the Water Treatment Plant. This is a distance of well over 100 feet. Recommend a permanent eyewash station be installed and temporary station be installed as soon as possible.

5/5 - 5/6/88



D. Area(s) for improvement (cont'd.)

- ° North-South passage between Units 3 and 4 have many temporary services running through it (Air, Power and Lights).
 - Recommend evaluating temporary hose and cords to see if they are still required.
 - Temporary lighting string has some fixtures that are without light bulbs. Recommend reinstalling light bulbs.
- ° Plexiglass log sheet in the RCA Gas House states "This log sheet must be completed for each cylinder". If this log is not required it should be removed: if it is required, it should be filled in.
- ° Holes in RCA Gas House wall are being used to store bottle caps, tools, and parts.

E. Professionalism, Summary of Shift, Comments

- ° Shift briefings covered shift evolutions very well.
- ° All watch stations were aware of ongoing activities and the effect of the activities on his watch station. An example is the Water Treatment Plant Operator was aware of the effect the High Tower being out of service had on the power block and actions required.
- ° Observed I&C, Operations and Technical Departments on the peak shift trouble shooting Auxiliary Feedwater Oscillations. The three groups worked as one team and kept everyone informed as to what was going on.
- ° Observed good foreign material exclusion practices by both Construction and FP&L Mechanical Maintenance in the work on 4A CCW HX and CV275C, respectively.
- ° Observed I&C Specialist working N-4-31. The specialist were very methodical and followed procedure and kept the operator informed of what steps they were taking.
- ° Observed Mechanical Maintenance working RV-4-715. The Journeyman had all necessary tools and procedures and used in the proper manner.
- ° The on shift operation crew handled the activation of the Emergency Plan in a highly professional manner and did not distract the unit operators from monitoring plant conditions.

F. Recommendations

See areas C and D.

Completed By: Bruce T. Sharp
MOS Observer

Date: 5/6/88

Reviewed By: L. W. Pearce
Operations Superintendent- Nuclear

Date: 5/6/88

Management Review By: K. P. C. S. B. 1.5/1/88
PM-N Date SVP Date VP Date

5/5 - 5/6/88

Date Started 5-5-88

PSN MOS

Date Finished 5-5-88

Initiating PSN Schlmkus PSN _____ Completed PSN Schlmkus

Initiating APSN Murphy APSN _____ Completed APSN Murphy

A. Questionable Work Practices/Actions Taken Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

None

C. Good Practices/Professionalism Observed

None

Reviewed By *[Signature]* Date 5/6/88 Actions Completed _____ Date _____

PSN MOS

Date Started 5-5-88

Date Finished 5-6-88

Initiating PSN Jones PSN _____ Completed PSN Jones

Initiating APSN Haley APSN _____ Completed APSN Haley

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvement/REcommendations/Actions Taken

None

C. Good Practices/Professionalism Observed

None

Reviewed By *[Signature]* Date 5/6/88 Actions Completed _____ Date _____

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To: Operations Superintendent - Nuclear

Date: 05/06/88

From: Russell Gouldy
(MOS Observer)Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- Security event and unusual event response
- De-classification from above events
- Shift meeting (pre and post shift)
- Preparations to fill and vent Unit 4

B. Immediate safety problems

None

C. Questionable work practices

- Following procedures:
Warehouse fire main was valved out by Construction yesterday, when they received a fire impairment tag. However, no clearance was issued. Today's shift was not aware of piping and valve alignment until notified by Construction that we may receive an auto start of the fire pump when the header is valved in.

Problem: Operations not aware of plant status due to short cutting of procedure.

D. Areas for improvement

None

E. Professionalism, Summary of Shift, Comments

Good turnover of the security/unusual event on both shifts followed by a complete closeout.

F. Recommendations

None

Completed By: Russell Gouldy
MOS Observer

Date: 05/06/88

Reviewed By: *R. W. Prince*
Operations Superintendent - NuclearDate: 5/7/88Management
Review By:*CB* 15/9/88 1 1
PM/N Date SVP Date VP Date
05/06/88

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To: Operations Superintendent - Nuclear

Date: 05/06-07/88

From: P. L. Walker
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- ° Unit 3: 100% steady state operation
 - Successful retest of Auxiliary Feedwater Control Valve
 - Determined that overspeed setpoint of Auxiliary Feedwater Pump 3A was in error
- ° Unit 4: Mode 5 and proceeding with filling and venting procedures

B. Immediate safety problems

None

C. Questionable work practices

None

D. Areas for improvement

None

E. Professionalism, Summary of Shift, Comments

Both shifts that I observed did their jobs well.

F. Recommendations

While performing OP-0209.1, Appendix B, steps covering switching to alternate Residual Heat Removal (RHS) lineup, approximately 2000 gallons of primary reactor coolant was transferred into the Refuelling Water Storage Tank from the RCS via RHR valve 4-887. This butterfly valve is supposed to be positioned to allow a limited amount of recirculation flow from the RHR pumps when their discharge flow paths are secured (on alternate RHR lineup). The recirculation line should use either an orifice or a different valve type which is not so prone to excessive leakage.

Completed By: P. L. Walker
MOS Observer

Date: 05/06-07/88

Reviewed By: L.W. P. Walker
Operations Superintendent - Nuclear

Date: 5/9/88

Management
Review By:

CPB 15/9/88
PM-N Date SVP Date VP Date

To: Operations Superintendent - Nuclear

Date: 05/06-07/88

From: Bruce Sharp
(MOS Observer)Shift: ☐ Day
☒ Night**A. Plant evolutions observed**

- Water Treatment Plant Regeneration Cycle
- Unit 3 Auxilliary Feedwater testing
- Unit 4 fill and vent
- Unit 3 Reactor Coolant System flow periodic test
- Feedwater Pump seal water flow corrective maintenance, PWO 6241
- 4D3 Battery corrective maintenance PWO 4682
- Shift turnover
- Shift briefing
- Unit 4 Component Cooling Water Heat Exchanger work performed by Construction
- Plant monitoring
- Log taking

B. Immediate safety problems

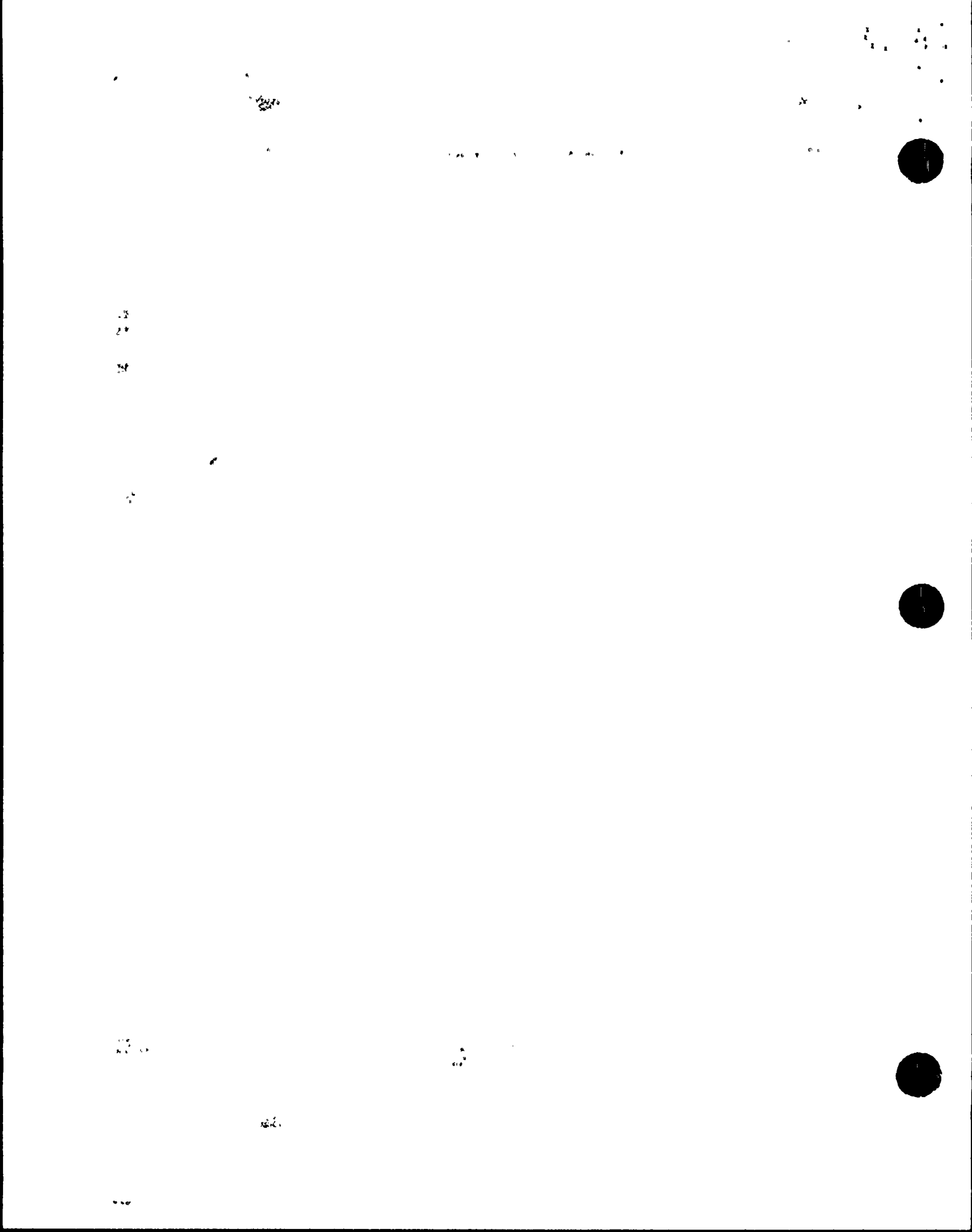
None

C. Questionable work practices

None

D. Areas for improvement

1. Observation: Operators received newly formatted logs and Red Book with no forwarning of the new logs or Red Book.
2. Observation: Reviewed Shift Technical Advisors Quality In Daily Work (QIDW) notebook. This is an excellent start, but it needs to include statistical upper and lower control limits so that a change in process can be immediately recognized.



E. Professionalism, Summary of Shift, Comments

1. Good team work on the part of Operations' Shift 3 in the performance of the fill and vent and good communications between the R.O and N.O.'s on shift.
2. Foremen and Supervisors in the Maintenance Department were visible and on the jobs in the field.

F. Recommendations

- D1. Give Operators advance notice of changes and if possible involve Operators in the change process.
- D2. See Ishakawa's Guide to Quality Control and Ford's Book on Continuing Quality.

Completed By: Bruce Sharp
MOS ObserverDate: 05/06-07/88Reviewed By: *[Signature]*
Operations Superintendent- NuclearDate: 5/9/88Management
Review By:9/13 15/9/88 1 1
PM-N Date SVP Date VP Date

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PSN MOS

Date Started 05/06/88

Date Finished 05/06/88

Initiating PSN Schinkus PSN _____ Completed PSN Schinkus

Initiating APSN Murphy APSN _____ Completed APSN Murphy

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

1. 4B Battery clearance was requested to be taken out-of-service at the 12:30 AM on 5/6/88 to change cell #13. A hold was placed on the clearance until peak shift till adequate personnel were available to do switching per TP-431.
-On peakshift Electrical commenced initial hook-ups prior to removing 4B Battery from service.
-PSN questioned 3A Battery Charger being out-of-service and lack of capability to comply to EOP-E-O Attach. "C" which states that if "B" Emergency Diesel Generator fails with loss of offsite power concurrent with Safety Injection, the 3S Battery Charger must feed 4B Battery. Currently 3S Battery Charger is feeding 3A Battery.
-It was further discovered that TP-431 utilizes 3S Battery Charger to supply 4B D.C. Bus while changing Cell #13. With the timing of when the clearance could have been hung and the procedural inadequacy, 4B Battery would have gone out-of-service at approximately 8:00 PM, 5/6/88 on Friday evening with limited personnel available to ensure that no Justification for Continued Operation or safety evaluations would be violated when an OTSC is issued to allow 4B Battery Charger to feed 4B D.C. Bus.

Recommendations:

Greater awareness should be given to safety systems impact on plant prior to removal from service. This should be flagged when procedures are written and independently verified to be correct at PNSC meetings.

Actions taken:

1. Stopped progress (at 1700 5/6/88) of removing 4B Battery from service.
2. Consulted Licensing, Operations Supervisor, Operations Superintendent and Procedure Upgrade personnel to accommodate any procedure changes needed and any Technical Specification Interpretations needed.

C. Good Practices/Professionalism, observed

1. Shift operators made great progress in returning Auxiliary Feedwater (AFW) Train I back to service. They also proved theory that "A" AFW pump over speed setpoint drift caused previous trips over past 2 days.
2. In parallel, the Unit 4 RCO maneuvered his operators into finally commencing fill and vent. This could not have been accomplished without the previous 2 shifts performing an exceptional job ensuring pre-fill and vent prerequisites.
3. The peak shift APSN and NWH guided the above evolutions in a professional manner with great expertise in coordination.

Reviewed By [Signature] Date 5/9/88 Actions Completed _____ Date _____

PSN MOS

Date Started 05/06/88

Date Finished 05/07/88

Initiating PSN Jones PSN _____ Completed PSN Jones

Initiating APSN Haley APSN _____ Completed APSN Haley

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

None

C. Good practices/professionalism Observed

None

Reviewed By Lu Pearce Date 5/9/88 Actions Completed _____ Date _____

PSN MOS

Date Started 05/06/88

Date Finished 05/06/88

Initiating PSN Wogan PSN _____ Completed PSN Wogan

Initiating APSN Singer APSN _____ Completed APSN Singer

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

None

Good practices/Professionalism Observed

Yes

Reviewed By D.W. Prince Date 5/7/88 Actions Completed _____ Date _____



To: Operations Superintendent - Nuclear

Date: 5/7/88

From: Russell Gouldy
(MOS Observer)Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- Observed Operations troubleshoot valve LCV-4-460 failure to open. Operations briefed I&C on problem and troubleshooting results.
- End of night shift meeting
- Preparations for Unit 4 Reactor Coolant Pump (RCP) Runs
- Response to Rubidium Gas in Auxilliary Building during Volume Control Tank purging operations.
- RCP AB&C 1 minute runs to push air from Steam Generator tubes
- Preparations to retest valve 863 A&B

B. Immediate safety problems

None

C. Questionable work practices

None

D. Area(s) for improvement

- During purging of Unit 3 Volume Control Tank, Rubidium gas was detected and resulted in evacuation of the Auxilliary Building. Health Physics notified Unit 3 RCO who checked the Plant Vent Radiation Monitor which showed a very slight increase. The RCO then requested the NO secure the purge. HP surveys indicated the highest levels to be in the area of the Gas Decay Tanks valve alley and pressure transmitters. Maintenance had just completed work in that area to fix leaking valves. The Technical Department System Engineer is investigating. Gas Analyzer was the problem.
- During performance of OP 209.1 Appendix B, which tests the alternate Residual Heat Removal Flow Path, the 863 A&B valves were tested but the stroke times for these valves were lost. This requires retesting, however, the Unit is now filled and partially vented by the 1 minute Reactor Coolant Pump runs.

Operators should use the supplied data sheets to record information. This will prevent rework and lost time.

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B. Professionalism, Summary of Shift, Comments

1. Both shifts were able to concentrate on operations on this Saturday; since only critical Maintenance and Construction was on going. This made the response to events more precise.
2. During the shift meeting when plant status was discussed, the Unit 4 Moisture Separator Reheater (MSR) D was reported to have cracks in base welds (this created on outage on Unit 3 last month) and that the other 3 MSR's would be inspected. The question was asked why wait until the end of an outage to do this inspection? The management who was present could not answer this rather straight forward question.

F. Recommendations

- ° Care should be taken when performing procedures to assure all steps area done. (see Item D)

Completed By: Russel Gouldy
MOS ObserverDate: 5/7/88Reviewed By: D. W. Piers
Operations Superintendent - NuclearDate: 5/7/88Management
Review By:GB 1-5/9/88
PM-N Date SVP Date VP Date

0-ADM-019

Management on Shift (MOS)
MOS DAILY REPORT

Page

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To: Operations Superintendent - Nuclear

Date: 5/7 - 5/8/88

From: P.L. Walker

(MOS Observer)

Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- ° Unit 3: 100% steady state operations
- ° Unit 4: Mode 5
10 minute Reactor Coolant Pump runs
Volume Control Tank Purge

B. Immediate safety problems

None

C. Questionable work practices

None (See Bruce Sharp's report)

D. Area(s) for improvement

None

E. Professionalism, Summary of Shift, Comments

A good shift, from Control Room viewpoint.

F. Recommendations

None

Completed By: P.L. Walker
MOS Observer

Date: 5/8/88

Reviewed By: P.L. Walker
Operations Superintendent - Nuclear

Date: 5/9/88

Management
Review By:C/B 15/9/88
PM-N Date SVP Date VP Date

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To: Operations Superintendent - Nuclear

Date: 5/7 - 5/8/88

From: Bruce T. Sharp
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3 at 100% power
- Unit 4 in Cold Shutdown
- Partial loss of Instrument Air (pressure fell to about 89psi)
- End of shift turnover
- Shift briefing
- Normal log taking
- Gas sampling of Auxilliary Building

B. Immediate safety problems

None

C. Questionable work practices

- Unit 3 West Condenser Pit has scaffolding in it for what appears to be painting. This scaffolding is not in accordance with ADM-012, Scaffold Control. The scaffolding on the North end is suspended from a conduit support and at least one platform is supported by a ladder. The scaffolding has no permit or tag. The scaffolding is not listed in the scaffolding log. The scaffolding safety is questionable. PSN and WE notified.

D. Area(s) for improvement

1. Training contractors in the use of FP&L procedures; see questionable work practices in Section C.
2. Isolating airborne leaks on RCA. (The Auxilliary Building had airborne contamination for several hours before the general area from which the gas was coming from was identified.)

E. Professionalism, Summary of Shift, Comments

1. Shift turnovers were informative and covered shift evolution.
2. Mechanical Maintenance was not present at 11:45 preshift briefing.

5/7 - 5/8/88

F. Recommendations

1. Evaluation of work practices of painters should be looked into to ensure that they understand FP&L scaffolding requirements.

Completed By: Bruce T. Sharp
MOS Observer

Date: 5/8/88

Reviewed By: L.W. Peace
Operations Superintendent - Nuclear

Date: 5/9/88

Management
Review By:

CJB 15/9/88 1 1
PM/N Date SVP Date VP Date

5/7 - 5/8/88

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Date Started 5-7-88

PSN MOS

Peak Shift

Date Finished 5-7-88

Initiating PSN Schmikus PSN _____ Completed PSN Schmikus

Initiating APSN Murphy APSN _____ Completed APSN Murphy

A. Questionable Work Practices/Actions Taken/Recommendations

B. Area for Improvement/Recommendations/Actions Taken

1. Need a method that will ensure OP-0209.1 Appendix B Valve Exercising, page 38, Sections 52 thru 56 will not be missed. This is the alternate Residual Heat Removal (RHR) flow path testing requirement. Due to the numerous job tasks encountered during cooldown of the Reactor Coolant System (RCS), this particular section has been put off, forgotten, missed etc. This is due to occasions where redundant equipment cannot support the test or system conditions will not allow testing. An example is given where the operator forgot to put the valve stroke times in section 52 and 53, then the RCS was filled and vented and pressurized to give Reactor Coolant Pump (RCP) seal leak off criteria. This put the system in a condition where the alternate RHR couldn't be tested in relation to the 2 valves missed for stroke times. Another problem is that the test when performed the previous night resulted in leakage of approximately 2000 gallons into the Refueling Water Storage Tank due to leakage thru isolation valve 887.

Recommend: Isolation valve 887 (rubber seated butterfly valve either be replaced with a different design or install a gate valve in series to accomodate isolation.

Recommend: The total test be incorporated into a procedure step to be performed immediately following RCS depressurization to atmospheric pressure while on RHR.

2. Had a communication breakdown between Operations, Construction and Start-Up concerning release of 4A Component Cooling Water Heat Exchanger after Ammertap tie ins. PSN was told that release of 4A CCW HX could not occur until all paperwork was in order and Heat Exchanger was turned over to Operations. Start-Up released clearance during peakshift and PSN was waiting for word that all paperwork was in order, to allow release of Heat Exchanger. There appears to be no method to ensure PSN has word that procedures, drawings etc. are updated and in possession of plant operators. This was a hold up until answer was pursued by PSN.

Recommendation: Operations Support should notify PSN, or possibly Document Control to give PSN the word.

C. Good Practices/Professionalism Observed

Reviewed By D.W. Brown Date 5/9/88 Actions Completed _____ Date _____

Figure 1 consists of two scatter plots. The left plot shows a positive correlation between the number of children and the number of mothers, with a regression line indicating a positive slope. The right plot shows a negative correlation between the number of children and the number of mothers, with a regression line indicating a negative slope.

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1. *Phragmites* 2. *Scirpus* 3. *Spartina* 4. *Distichlis* 5. *Eleocharis* 6. *Cyperus* 7. *Eleusine* 8. *Pennisetum* 9. *Setaria* 10. *Digitaria* 11. *Eleusine* 12. *Pennisetum* 13. *Setaria* 14. *Digitaria* 15. *Eleusine* 16. *Pennisetum* 17. *Setaria* 18. *Digitaria* 19. *Eleusine* 20. *Pennisetum* 21. *Setaria* 22. *Digitaria* 23. *Eleusine* 24. *Pennisetum* 25. *Setaria* 26. *Digitaria* 27. *Eleusine* 28. *Pennisetum* 29. *Setaria* 30. *Digitaria* 31. *Eleusine* 32. *Pennisetum* 33. *Setaria* 34. *Digitaria* 35. *Eleusine* 36. *Pennisetum* 37. *Setaria* 38. *Digitaria* 39. *Eleusine* 40. *Pennisetum* 41. *Setaria* 42. *Digitaria* 43. *Eleusine* 44. *Pennisetum* 45. *Setaria* 46. *Digitaria* 47. *Eleusine* 48. *Pennisetum* 49. *Setaria* 50. *Digitaria* 51. *Eleusine* 52. *Pennisetum* 53. *Setaria* 54. *Digitaria* 55. *Eleusine* 56. *Pennisetum* 57. *Setaria* 58. *Digitaria* 59. *Eleusine* 60. *Pennisetum* 61. *Setaria* 62. *Digitaria* 63. *Eleusine* 64. *Pennisetum* 65. *Setaria* 66. *Digitaria* 67. *Eleusine* 68. *Pennisetum* 69. *Setaria* 70. *Digitaria* 71. *Eleusine* 72. *Pennisetum* 73. *Setaria* 74. *Digitaria* 75. *Eleusine* 76. *Pennisetum* 77. *Setaria* 78. *Digitaria* 79. *Eleusine* 80. *Pennisetum* 81. *Setaria* 82. *Digitaria* 83. *Eleusine* 84. *Pennisetum* 85. *Setaria* 86. *Digitaria* 87. *Eleusine* 88. *Pennisetum* 89. *Setaria* 90. *Digitaria* 91. *Eleusine* 92. *Pennisetum* 93. *Setaria* 94. *Digitaria* 95. *Eleusine* 96. *Pennisetum* 97. *Setaria* 98. *Digitaria* 99. *Eleusine* 100. *Pennisetum* 101. *Setaria* 102. *Digitaria* 103. *Eleusine* 104. *Pennisetum* 105. *Setaria* 106. *Digitaria* 107. *Eleusine* 108. *Pennisetum* 109. *Setaria* 110. *Digitaria* 111. *Eleusine* 112. *Pennisetum* 113. *Setaria* 114. *Digitaria* 115. *Eleusine* 116. *Pennisetum* 117. *Setaria* 118. *Digitaria* 119. *Eleusine* 120. *Pennisetum* 121. *Setaria* 122. *Digitaria* 123. *Eleusine* 124. *Pennisetum* 125. *Setaria* 126. *Digitaria* 127. *Eleusine* 128. 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*Pennisetum* 249. *Setaria* 250. *Digitaria* 251. *Eleusine* 252. *Pennisetum* 253. *Setaria* 254. *Digitaria* 255. *Eleusine* 256. *Pennisetum* 257. *Setaria* 258. *Digitaria* 259. *Eleusine* 260. *Pennisetum* 261. *Setaria* 262. *Digitaria* 263. *Eleusine* 264. *Pennisetum* 265. *Setaria* 266. *Digitaria* 267. *Eleusine* 268. *Pennisetum* 269. *Setaria* 270. *Digitaria* 271. *Eleusine* 272. *Pennisetum* 273. *Setaria* 274. *Digitaria* 275. *Eleusine* 276. *Pennisetum* 277. *Setaria* 278. *Digitaria* 279. *Eleusine* 280. *Pennisetum* 281. *Setaria* 282. *Digitaria* 283. *Eleusine* 284. *Pennisetum* 285. *Setaria* 286. *Digitaria* 287. *Eleusine* 288. *Pennisetum* 289. *Setaria* 290. *Digitaria* 291. *Eleusine* 292. *Pennisetum* 293. *Setaria* 294. *Digitaria* 295. *Eleusine* 296. *Pennisetum* 297. *Setaria* 298. *Digitaria* 299. *Eleusine* 300. *Pennisetum* 301. *Setaria* 302. *Digitaria* 303. *Eleusine* 304. *Pennisetum* 305. *Setaria* 306. *Digitaria* 307. *Eleusine* 308. *Pennisetum* 309. *Setaria* 310. *Digitaria* 311. *Eleusine* 312. *Pennisetum* 313. *Setaria* 314. *Digitaria* 315. *Eleusine* 316. *Pennisetum* 317. *Setaria*

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PSN MOS

Date Started 5-7-88

Date Finished 5-7-88

Initiating PSN Wogan PSN _____ Completed PSN Wogan

Initiating APSN Singer APSN _____ Completed APSN Singer

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

None

C. Good Practices/Professionalism Observed

Yes

Reviewed By L.W. House Date 5/9/88 Actions Completed _____ Date _____

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To: Operations Superintendent - Nuclear

Date: 5/8/88

From: Russell Gouldy
(MOS Observer)Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- End of night shift and start of day shift meetings
- Timing valves 863 A and 4 on Unit 4
- Walked down Unit 3 secondary, see sections C, D, and E

B. Immediate safety problems

None

C. Questionable work practices

1. Unit 3 Feedwater Pump Room has a 4 x 8 sheet of plywood leaning at the North doorways. Air blowers are blowing on a Feedwater Pump to keep stator temperature down. Apparently, this plywood was going to block the NW door to limit "Hot Air" from entering room. No PWO, TSA or Evaluation could be found to support this work. Reducing this air flow could have led to motor damage.

D. Area(s) for improvement

1. Unit 3 High Pressure Turbine exhaust steam leak (cold reheat steam) on instrument root valve has increased only slightly since last Monday when I made the first set of rounds for this MOS shift. Maintenance has been tracking this leak since last start-up. Steam should be deflected off insulation if repair is going to be delayed.
2. All four Unit 3 Moisture Separator Reheater (MSR) High Level annunciators alarmed. After installation of the new turbine rotors and changing MSR from 2 pass to 4 pass steam heating, the heat balance and affected setpoints should be revised to reflect actual plant configuration.
3. The attached procedures have caused the non-licensed operators problems and was previously identified by PSN Wogan and APSN Singer. In addition OP 204.2, Periodic Tests, Checks and Operation Evolution, Appendix E has the Oxygen valved out following the test which has led to the failure of both Unit's Post Accident Hydrogen Monitoring System (See attached)

E. Professionalism, Summary of Shift, Comments

1. Yesterday's Volume Control Tank (VCT) Purge which led to airborne contamination of the Auxiliary Building was troubleshot and the source was determined to be the Gas Analyzer in the Chemistry Lab. Repairs are under way. Good job by Technical, Health Physics, Maintenance and Operations.
2. PUP on Shift, has walked down OP 204.2 Appendix E with operators to verify the confusion which has led to the Post Accident Hydrogen Monitors (PAHM) failures. He was in the process of correcting this misinterpretation.

5/8/88

6. 21.

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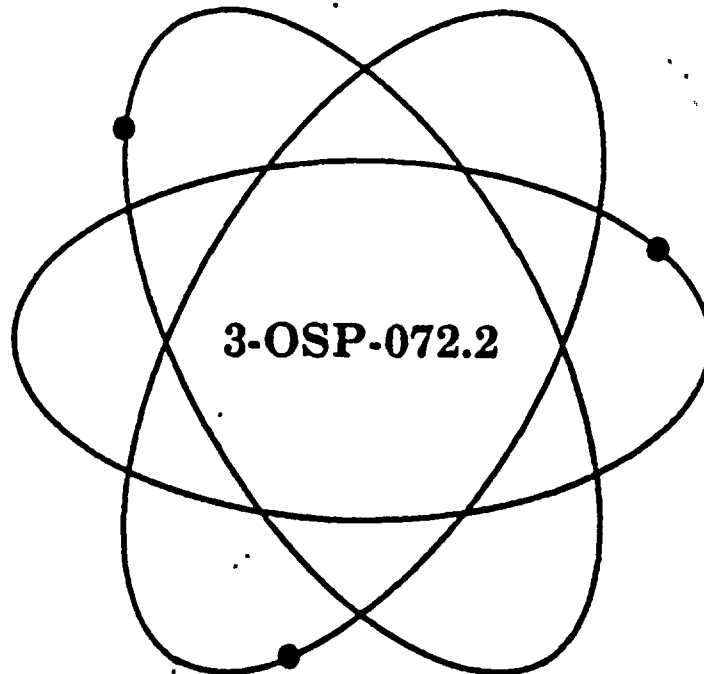
This procedure may be affected by an OTSC (On The Spot Change) verify information prior to use.
Date verified _____ Initials _____

(17)

Florida Power & Light Company

Turkey Point Nuclear Plant

Unit 3



Title:

MSIV N₂ Backup Periodic Test

Safety Related Procedure

Responsible Department:

Operations

Reviewed by PNSC:

~~88-029~~

Approved by Plant Manager-N:

~~2/10/88~~

RTSs 87-0380P, 87-0932P, 87-1719, 87-2080, 87-1950P, 88-0273

PCMs 86-005, 85-135, 85-135

OTSC 4160, 5446, 5723

3-OSP-072.2

MSIV N₂ Backup Periodic TestINITIALS
CK'D VERIF

7.1.4 (Cont'd)

2/7

3. Standby N₂ Bottle pressure check: (Bottle #2/Bottle #1)N₂ Bottle in standby: _____

- a. Open MSIV N₂ Sta C Bottle #2 (Bottle #1) Stop Vlv, 3-5271 (3-5270).
- b. Open MSIV N₂ Sta C Outlet PI-3-2606C (PI-3-2606B) Root Vlv, 3-5273 (3-5272).

NOTE

A N₂ bottle with a pressure less than the acceptance criteria for a Standby N₂ bottle can be used as an In-Service N₂ bottle, provided its pressure meets the acceptance criteria.

- c. Record observed pressure on MSIV N₂ Sta C Bottle #2 (Bottle #1) Outlet PI-3-2606C (PI-3-2606B) in Attachment 1, MSIV N₂ Station Periodic Test Data Sheet and indicate bottle status (inservice or standby).
- d. Open MSIV N₂ Sta C Bottle #2 (Bottle #1) Isol Vlv, 3-5277 (3-5276), and maintain open for 3 to 5 seconds.
- e. Close MSIV N₂ Sta C Bottle #2 (Bottle #1) Isol Vlv, 3-5277 (3-5276).
- f. Verify N₂ low pressure trouble alarm on Panel I, annunciator 7/2 and the amber light on VPB in the Control Room clear.
- g. Close MSIV N₂ Sta C Bottle #2 (Bottle #1) Stop Vlv, 3-5271 (3-5270).
- h. Close MSIV N₂ Sta C Outlet PI-3-2606C (PI-3-2606B) Root Vlv, 3-5273 (3-5272).
- i. Vent the excess pressure by slowly opening the MSIV N₂ Sta C Bottle #2 (Bottle #1) PI-3-2606C (PI-3-2606B) Vent Vlv, 3-5318 (3-5317).
- j. Close the MSIV N₂ Sta C Bottle #2 (Bottle #1) PI-3-2606C (PI-3-2606B) Vent Vlv, 3-5318 (3-5317).

TO's COULD NOT UNDERSTAND
What was wanted on this step.

100



3-OSP-072.2

MSIV N₂ Backup Periodic Test

Approval Date:

3/31/88

7.3 MSIV N₂ Station Bottle Status ChangeINITIALS

Date/Time Started: _____

CK'D VERIFNOTES

This section provides instructions to change the MSIV N₂ station bottle status in the event of one of the following conditions:

- a bottle doesn't meet the acceptance criteria specified in Attachment 1.
- a low pressure alarm is received on Panel I, Annunciator 7/2.
- the MSIV N₂ Backup amber trouble light is received.

7.3.1 Obtain permission from the Plant Supervisor - Nuclear to perform this section of the procedure.

NOTE

Perform Steps 7.3.2, 7.3.3, or 7.3.4, as required.

7.3.2 3A MSIV N₂ Station A - Place N₂ Bottle #1 (Bottle #2) In-Service and N₂ Bottle #2 (Bottle #1) in Standby.

1. N₂ bottle to be placed in service: _____
2. Open or verify open MSIV N₂ Sta A Bottle #2 (Bottle #1) Stop Vlv, 3-5201 (3-5200).
3. Open or verify open MSIV N₂ Sta A Bottle #2 (Bottle 1) Isol Vlv, 3-5207 (3-5206).
4. Verify N₂ low pressure trouble alarm on Panel I, Annunciator 7/2 and the amber light on VPB in the Control Room clear.
5. Open MSIV N₂ Sta A Bottle #1 (Bottle #2) Stop Vlv, 3-5200 (3-5201).
6. Open MSIV N₂ Sta A Bottle #1 (Bottle #2) Isol Vlv, 3-5206 (3-5207).
7. Close MSIV N₂ Sta A Bottle #2 (Bottle #1) Stop Vlv, 3-5201 (3-5200).

TOO MANY OPEN. & Verify
SAME N₂ Bottle

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INITIALS
CK'D VERIF

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7.3.2 (Cont'd)

8. Close MSIV N₂ Sta A Bottle #2 (Bottle #1) Isol Vlv, 3-5207 (3-5206).
9. Place the "N₂ Bottle In Service" tag on the In-Service Bottle.
10. Perform 3-OSP-072.2 "MSIV N₂ Backup Periodic Test", Sections 7.1.2.2 and 7.1.2.3 to verify the In-Line and Standby Nitrogen bottles have sufficient pressure to satisfy their respective acceptance criteria.

7.3.3 3B MSIV N₂ Station B - Place N₂ Bottle #1 (Bottle #2) In-Service and N₂ Bottle #2 (Bottle #1) in Standby.

1. N₂ bottle to be placed in service: _____
2. Open or verify open MSIV N₂ Sta B Bottle #2 (Bottle #1) Stop Vlv, 3-5236 (3-5235).
3. Open or verify open MSIV N₂ Sta B Bottle #2 (Bottle #1) Isol Vlv, 3-5242 (3-5241).
4. Verify N₂ low pressure trouble alarm on Panel I, Annunciator 7/2 and the amber light on VPB in the Control Room clear.
5. Open MSIV N₂ Sta B Bottle #1 (Bottle #2) Stop Vlv, 3-5235 (3-5236).
6. Open MSIV N₂ Sta B Bottle #1 (Bottle #2) Isol Vlv, 3-5241 (3-5242).
7. Close MSIV N₂ Sta B Bottle #2 (Bottle #1) Stop Vlv, 3-5236 (3-5235).
8. Close MSIV N₂ Sta B Bottle #2 (Bottle #1) Isol Vlv, 3-5242 (3-5241).
9. Place the "N₂ Bottle In Service" tag on the In-Service Bottle.
10. Perform 3-OSP-072.2 "MSIV N₂ Backup Periodic Test", Sections 7.1.3.2 and 7.1.3.3 to verify the In-Line and Standby Nitrogen bottles have sufficient pressure to satisfy their respective acceptance criteria.

7.3.4 3C MSIV N₂ Station C - Place N₂ Bottle #1 (Bottle #2) In-Service and N₂ Bottle #2 (Bottle #1) in Standby.

1. N₂ bottle to be placed in service: _____

Too MANY Verifications for
A simple procedure; leads to confusion
AND then, Valve misalignment of N₂

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INITIALS
CK'D VERIF

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7.15.2 (Cont'd)

4. When BAST levels are equalized or at the desired levels, restore the following to the positions record in Step 7.15.2.1:
 - a. A BAST Outlet Isol, 345
 - b. 3A-3B BA Xfer Pump Suct Hdr X-Conn, 335
 - c. BA Xfer Pump Suct Hdr X-Conn, 327
 - d. B BAST Outlet Isol, 331
 - e. BA Xfer Pump Suct Hdr X-Conn, 390
 - f. 4A-4B BA Xfer Pump Suct X-Conn, 391
 - g. C BAST Outlet Isol, 373
5. Record the following:
BA Tank A level 3350
BA Tank B level 4120
BA Tank C level 3300
6. Notify Chemistry to sample the BAST's.
7. Verify BAST's boron concentration is 20,000 ppm to 22,500 ppm.
8. Verify all log entries specified in Section 2.2 have been recorded.

Date/Time Completed: 4-30-88

PERFORMED BY (Print)

INITIALS

TRAVIS W. TATE

TW

J. P. O'STEEN

JO

D MACARTHUR

DM

REVIEWED BY:

Plant Supervisor - Nuclear or SRO Designee

TO INDEPENDENTLY VERIFY CORRECT BAST CONCENTRATION CHEMISTRY SHOULD PERFORM TWO SAMPLES AND COMPARE RESULTS INSTEAD OF TWO OPERATORS CALLING LAB AND COMPARING RESULTS FROM ONE TEST.



OPERATING PROCEDURE 0204.2, PAGE 26
PERIODIC TESTS, CHECKS, AND OPERATING EVOLUTIONS

3/28/88

6/7

APPENDIX E - (Section 2)

Date: _____

1. MONTHLY Analog Channel Test of Containment H₂ Monitors:

NOTE Notify I and C Department to install 4 percent test gas bottles for this test.

| UNIT 3 | | UNIT 4 | |
|--------|-------|--------|-------|
| Ch. A | Ch. B | Ch. A | Ch. B |
| _____ | _____ | _____ | _____ |

A. Verify an H₂ test gas cylinder is available for monitor in the Auxiliary Building by verifying adequate pressure on the gage at the regulator. Record the H₂ concentration of test gas cylinders for:

Channel A : _____ Percent

Channel B : _____ Percent

1. Valve in one H₂ bottle per train to the H₂ Test Gas manifold on the Auxiliary Building roof.

2. Verify adequate O₂ reagent gas pressure on the gage at the regulator, then valve in the O₂ reagent gas at the following manifolds: A Train in Auxiliary Building Hallway South Corridor by HP station; B Train by stairway to 4' elevation near Lab.

This step leads operators to believe that last step is to ISOLATE both H₂ & O₂ ie THEN valve IN... means O₂ was valved OUT.

B. Verify H₂ monitors at QR81 and 82 are energized with switches positioned as follows:

1. Function selector switch - SAMPLE

2. Control switch - STANDBY

C. Obtain neutron badge from Health Physics and proceed to H₂ monitor being tested and open test valves. TRAIN A in P.A.S.S. room. TRAIN B on Four Foot Elevation of AUX Bldg.

TRAIN A

TRAIN B

- | | |
|----------------|-------------|
| 1. PAHM-*-004A | PAHM-*-004B |
| 2. PAHM-*-005A | PAHM-*-005B |
| 3. PAHM-*-006A | PAHM-*-006B |
| 4. PAHM-*-007A | PAHM-*-007B |
| 5. _____ | PAHM-*-003A |
| 6. _____ | PAHM-*-003B |

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|-------|-------|-------|-------|
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

OPERATING PROCEDURE 0204.2, PAGE 27
PERIODIC TESTS, CHECKS, AND OPERATING EVOLUTIONS

3/28/88

7/7

APPENDIX E (Section 2)

| UNIT 3 | | UNIT 4 | |
|--------|-------|--------|-------|
| Ch. A | Ch. B | Ch. A | Ch. B |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

NOTE: In order to clear ANN. I 6/5 Alarm and perform Step D.6. (below), both monitors must be tested at the same time.

D. At QR 81 and 82, test channels A and B as follows:

1. Turn Control Selector to ANALYZE.
2. Turn Function Selector to ZERO.
3. Turn or verify that the H₂ Range Selector is 0-10 percent.
4. Have N.O. reset all alarms at the Local H₂ monitor panel. High Hydrogen may remain in.
5. Depress Remote Selector pushbutton and allow 45 minutes for unit to stabilize. Adjust H₂ ZERO potentiometer for ZERO indication.
6. Turn selector switch to H₂ span, allowing at least 45 minutes for stabilization. Adjust H₂ SPAN potentiometer for percent recorded in Step 1.A.
7. Position switches for standby operation as per Steps B.1 and B.2.
8. Close the valves that were opened in Step C above.
9. Close test gas valve to monitors.

operators have been isolating both
H₂ & O₂. Isolating O₂ leads to
H₂ monitor failure!

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F. Recommendations

1. Evaluate cooling problem in both Feedwater Pump rooms.
2. Remove plywood sheathing from Unit 3 Feedpump room.
3. Evaluate Moisture Separator Reheater high level targets on Unit 3.
4. Determine if heat balance drawings need updating as a result of Unit 3 Turbine modification.
5. Determine if level setpoints need revising for Unit 3 secondary.
6. Review procedures for "level of understanding" to assure junior level non licensed operators can understand these procedures. An SRO with a college degree may be able to perform the task but not an NCO on midnight shift. This will prevent errors in procedure implementation.

Completed By: Russel Gouldy
MOS ObserverDate: 5/8/88Reviewed By: L.W. Plante
Operations Superintendent- NuclearDate: 5/9/88Management
Review By:G/B 15/9/88 1 1
PM-N Date SVP Date VP Date

5/8/88

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0-ADM-019

Management on Shift (MOS)
MOS DAILY REPORT

Page

1

To: Operations Superintendent - Nuclear

Date: 05/08-09/88

From: P. L. Walker
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3, 100% Steady State Operations
- Unit 4, Mode 5, Slow Heatup to 180°F
 - Began to draw Pressurizer Bubble (slow heat up)
 - Started 4B Reactor Coolant Pump

B. Immediate safety problems

None

C. Questionable Work practices

None

D. Areas for Improvement

A significant number of tools, extension cords, hoses, etc. are being left around the plant after the completion of jobs.

E. Professionalism, Summary of Shift, Comments

The leak on Unit 3's #6 Feedwater Heater (Extraction Steam Lead Flange) is getting worse.

F. Recommendations

None

Completed By: P. L. Walker
MOS Observer

Date: 05/08-09/88

Reviewed By: J. W. Hance
Operations Superintendent - Nuclear

Date: 5/9/88

Management
Review By:

CPB 15/9/88
PM-N Date SVP Date VP Date
05/08-09/88

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0-ADM-019

Management on Shift (MOS)
MOS DAILY REPORT

Page

1

To: Operations Superintendent - Nuclear

Date: 05/08-09/88

From: Max Ammerman
(MOS Observer)Shift: ☐ Day
☒ Night**A. Plant evolutions observed**

- Control Point entries
- Cleaning #3B Component Cooling Water Heat Exchanger (CCW HX)
- Auxillary Feedwater Walkdown

B. Immediate safety problems

None

C. Questionable work practices

None

D. Areas for Improvement

Under Unit 3 Main Steam Platform stairs there is a cover missing on conduit #A3K1643.

E. Professionalism, Summary of Shift, Comments

Improved work practice: Mechanical Maintenance Journeyman (Charlie Trowbridge) devised a block and tackle to aid in handling the hoses for cleaning Component Cooling Water Heat Exchangers. This decreased the time to clean the Heat Exchangers and made the process easier.

F. Recommendations

1. Put cover on A3K1643.
2. Formalize the Block and Tackle used to move the hoses when cleaning the CCW HX's. This is a "good practice" that should be done all the time.

Completed By: Max Ammerman
MOS Observer

Date: 05/08-09/88

Reviewed By: L.W. Gane
Operations Superintendent - Nuclear

Date: 5/9/88

Management
Review By:

9/15 15/9/88
PM/N Date SVP Date VP Date
05/08 09/88

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PSN MOS

Date Started 05/08/88

Date Finished 05/08/88

Initiating PSN Schirakus PSN _____ Completed PSN Schirakus

Initiating APSN Dallan APSN _____ Completed APSN Dallan

A. Questionable Work practices/Actions Taken/Recommendations

None

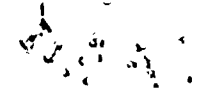
B. Areas for Improvement/Recommendations/Actions Taken

None

C. Good Practices/Professionalism Observed

1. Nuclear operators on shift did some research into the gaseous activity being seen on occasions in Auxiliary Building hallways. They had Health Physics sample Waste Gas Decay Tank (WGDT) pressure transmitters outside the lab while waste gas compressor was started. The sample showed increased activity from PT-1038 (C.W.G.D.T.) pressure transmitter location. A clearance was hung on this gas tank's valves and pressure transmitter to verify if this is the source. Nuclear operators did this on their own.
2. A large amount of work was performed on peak shift, and it was obvious the same huge quantity of work was performed by the 2 previous shifts. The team work looks good.

Reviewed By S.W. Davis Date 5/9/88 Actions Completed _____ Date _____



PSN MOS

Date Started 05/09/88

Date Finished 05/09/88

Initiating PSN Jones PSN _____ Completed PSN Jones

Initiating APSN Haley APSN _____ Completed APSN Haley

A. Questionable Work practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

None

C. Good practices/Professionalism Observed

Yes

Reviewed By L. J. Price Date 5/11/88 Actions Completed _____ Date _____

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100-100000

PSN MOS

Date Started 05/08/88

Date Finished 05/08/88

Initiating PSN Wogan PSN _____ Completed PSN Wogan

Initiating APSN Singer APSN _____ Completed APSN Singer

A. Questionable Work practices/Actions Taken/Recommendations

No comment

B. Areas for Improvement/Recommendations/Actions Taken

No comment

C. Good practices/Professionalism Observed

No comment

Reviewed By *P. W. Parie* Date 5/9/88 Actions Completed _____ Date _____

MANAGEMENT ON SHIFT (MOS)

WEEK STARTING: 05/09/88

WEEKLY SUMMARY REPORT

PAGE 1 OF 2

Five MOS Observers were on shift, Gregg M. Smith, Westinghouse Electric Corporation (05/09-15/88, days); Andrew P. Drake, Westinghouse Corporation (05/09-16/88, evenings), Max A. Ammerman, Turkey Point INPO HPES Coordinator (05/09-10/88, evenings); Thomas D. Joseph, Turkey Point Lead Civil Engineer (05/10-15/88, evenings); and Don W. Haase, Turkey Point Nuclear Plant Safety Evaluation Group Chairman (05/15-16/88, evenings).

Unit 3 operated at 100% power throughout the reporting period. Unit 4 was in Cold Shutdown for maintenance.

No immediate safety problems were reported by MOS Observers.

Three questionable work practices were identified by MOS Observers. These questionable practices concerned Chemistry Technicians passing frisked sample bottles through an RCA fence rather than using a control point; the method of returning the Quality Safety Parameter Display System to service; and Security admitting a vendor serviceman with suspected alcohol on his breath. The vendor representative was removed from the site.

During the reporting period, the MOS Observers noted thirty-three recommendations and areas for improvement. These comments and suggestions included:

1. Twelve items concerning plant equipment installation and design including the cycling of the backup heaters on the Unit 3 Pressurizer, design changes to prevent a radiation release to the plant vent when conditioning a newly recharged mixed bed demineralizer and the material condition of the Units 3 and 4 discharge structure concrete piers.
2. Nine items concerning the potential to improve work practices including coordination of the review and conduct of various work packages in the plant, availability of a crew for raking grass at the Intake Structure, and coordination of turnover of work items between maintenance crews.

ATTACHMENT: MOS DAILY REPORTS

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MANAGEMENT ON SHIFT (MOS)

WEEK STARTING: 05/09/88

WEEKLY SUMMARY REPORT

PAGE 2 OF 2

3. Six items concerning procedure changes and improvements such as the elimination of redundant instructions for returning the Overpressure Mitigation System to service, the need to verify On-The Spot Changes when implementing the Control Room Inaccessibility Procedure and precautions associated with tripping Reactor Protection System (RPS) bistables when conducting the RPS Off Normal Procedure.
4. Three housekeeping comments were made associated with the Unit 4 condenser pit, wire mesh behind the Unit 4 Transformer and general housekeeping practices.
5. Three miscellaneous comments concerning marking of equipment operating limits on Control Room meters, proper use of hard hats and safety belts and use of the most recent copy of a procedure.

During the reporting period the Plant Supervisor-Nuclear (PSN) MOS reporting program continued. The PSN-MOS reports did not identify any immediate safety problems.

The PSNs identified four questionable work practices during the reporting period. These areas included: the incorrect removal of a Caution Tag for a 480 volt load center, the performance of three procedures simultaneously on the Auxiliary Feedwater Nitrogen Backup System, lack of action concerning an increasing leak on valve BTV-3-1524, and repair of the B emergency diesel generator cooling water outlet temperature gauge located on the engine panel.

Additionally, the PSN's identified fifteen areas for improvement. These suggestions included:

Seven comments were made concerning plant equipment and design associated with items such as the travelling screens, the intake trash rakes the size of the drain for the condensers.

Eight other comments were made concerning items such as clarity in surveillance scheduling and the requirement for conducting the Diesel Air Start Test prior to a mode change.

ATTACHMENT: MOS DAILY REPORTS

Wk/4

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| 0-ADM-019 | Management on Shift (MOS)
MOS DAILY REPORT | Page
1 |
|-----------|---|-----------|

To: Operations Superintendent - Nuclear

Date: 05/09/88

From: Gregg M. Smith
(MOS Observer)

Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- ° Unit 4
 - Drawing a bubble in Pressurizer and subsequent drain down
 - 3-OSP-075.2 Auxiliary Feedwater Train 2 Operability Verification
 - 3-OSP-0594 Power Range Nuclear Instrumentation System Operational test
 - Shift turnovers, (days and peaks)

B. Immediate safety problems

None

C. Questionable work practices

None

D. Areas for improvement

Recommend evaluating the need for the section 5.2 of procedure 4-OP-041.2 (returning OMS to normal) section 5.2 Pressurizer, which describes the steps necessary to return Overpressure Mitigating System (OMS) to normal. Procedure 4-GOP-503 (cold shutdown to hot shutdown) provides the same steps to return OMS to normal. It seems like either the GOP should reference the OP and take the steps out of the procedure or section 5.2 should be removed and the steps in the GOP used.

A procedure was pulled from the spare procedure file for the Auxiliary Feedwater Train 2 Operability Test (3-OSP-075.2). The procedure was not the latest revision and was not verified by the operator. I recommend that steps be taken to ensure that either the spare file be verified to contain only the latest revision procedures or ensure the operators verify the procedures are the latest revision.

E. Professionalism, Summary of Shift, Comments

Day shift PSN did a very good job at controlling the number of people in the Control Room. He ensured that only the people required were in the Control Room for the various evolutions being performed.

Completed By: Gregg M. Smith
MOS Observer

Date: 05/09/88

Reviewed By: J.W. Parnell
Operations Superintendent- Nuclear

Date: 5/10/88

Management
Review By:

PM-N 1 Date VP 1 5/10/88 Date VP 1 Date

05/09/88

To: Operations Superintendent - Nuclear

Date: 05/09-10/88

From: Andrew P. Drake
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

Peak Shift

- End of Shift briefing
- Peak/mid shift turnover
- Unit 4, Mode 5, 170°F
- Unit 3, Mode 1, 100% power, 723 MWE
- 4-OSP-72.2 (Main Steam Isolation Valve Nitrogen Backup Test)
- 4-OP-47.1 (Volume Control Tank Gas Space Concentration Control)
- 3-OSP-67.7
- 3-OP-64, Sections 7.1 and 7.2 (Safety Injection Accumulators)
- Reviewed training brief #228, Control Room HVAC, MOQS and T/S changes

Mid Shift

- Tour of RAB
- 3-OSP-59.5 (Power Range Nuclear Instrumentation Shift Checks)
- 3-OSP-41.1, section 7.1 (Reactor Coolant System Leak Rate Calculation)
- 0-OSP-60.1 (Auxiliary Building Exhaust Fans Damper Operability Test)
- 4-OSP-53.4 (Containment Building Valve Position Verification)
- 4-OSP-41.1 (visual) section 7.1 (Reactor Coolant System Leak Rate Calculation)

B. Immediate safety problems

None

C. Questionable work practices

See item under this section of report filed by Max A. Ammerman.

D. Areas for improvement

1. General housekeeping seems to have declined somewhat since I was here about 1 month ago, particularly on the Unit 4 side. Good housekeeping practices should be applied during outages also.
2. A wood and wire mesh assembly has been constructed behind the Unit 4 generator, main transformer, auxiliary and startup transformer relay cabinets. The structure is tie wrapped to cable spreading trays and conduits. These cabinets are located in the cable spreading room. This structure should be removed and if a protective structure is required a more suitable permanent one installed.

E. Professionalism, Summary of Shift, Comments

None

Completed By: Andrew P. Drake
MOS ObserverDate: 05/09-10/88Reviewed By: *L.W. Para*
Operations Superintendent- NuclearDate: 5/10/88Management
Review By:

PM-N 1 Date 5/10/88 SVP 1 Date 5/10/88 VP 1 Date 05/09-10/88

To: Operations Superintendent - Nuclear

Date: 05/09-10/88

From: Max Ammerman
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Tour Secondary
- Tour RCA
- Tour Intake
- Control Room Observation

B. Immediate safety problems

None

C. Questionable work practices

Chemistry passes sample bottles for Steam Generator - Secondary Chemistry in and out the RCA fence. I agree that Chemistry is "Qualified" to check for contamination but the practice of in and out the fence may be questioned. Review Chemistry practice of moving bottles through the RCA boundry.

D. Areas for improvement

None

E. Professionalism, Summary of Shift, Comments

Completed By: Max Ammerman
MOS Observer

Date: 05/09-10/88

Reviewed By: *[Signature]*
Operations Superintendent - NuclearDate: 5/10/88Management
Review By:

PM-N

Date

SVR

Date

VP

Date



Date Started 05/09/88

PSN MOS

Date Finished 05/09/88

Initiating PSN Wogan PSN _____ Completed PSN Wogan

Initiating APSN Singer APSN _____ Completed APSN Singer

A. Questionable Work Practices/Actions Taken/Recommendations

Auxiliary Feedwater Train 2 Backup Nitrogen Test, 3-OSP-075.7, was invalidated upon discovery of a step not performed properly. I feel the root cause of this was confusion during simultaneous performance of three different procedures and incomplete pre-briefing. Actions taken were procedure review, personnel interview, and re-run of OSP-075.7. Recommendations include adoption of MOS report of 5/04/88 (Schimkus/Murphy), pre-brief be conducted by system engineer, and perhaps performance of one sensitive procedure at a time.

B. Areas for Improvement/Recommendations/Actions Taken

Upon review of completed 3-OSP-075.7 it was discovered as out-of-date. Recommendations are to have spare copies placed in the files by the person to be signing for them from Document Control. Actions taken are to have the Shift Technician copy the transmittal sheet and place it with the spare copies. Perhaps Document Control should assume responsibility for distribution of all procedure upgrades, changes and or revisions that affect safety related system testing.

C. Good practices/Professionalism Observed

Good practices and a high degree of professionalism were exhibited by Mr. A.M. Singer, APSN who reviewed all these procedures and placed every discrepancy in the proper perspective.

Reviewed By *A.W. Prince* Date *5/10/88* Actions Completed _____ Date _____

PSN MOS

Date Started 05/09/88

Date Finished 05/09/88

Initiating PSN Anderson PSN _____ Completed PSN Anderson

Initiating APSN Reese APSN _____ Completed APSN Reese

A. Questionable Work Practices/Actions Taken/Recommendations

A caution tag we had hung on the Undervoltage (UV) Switch on 4C 480 Load Center (LC) was found by the Auxiliary Feedwater cage on the floor. It had a QC equipment tag stapled to it from the UV switch that had been replaced on the 4C LC. I cannot verify it, but it looks like this tag was taken by the person working the 4C LC switch package upon completion of the job.

Recommendation: All the maintenance disciplines should be told never to remove a caution tag from a piece of equipment and never staple or attach any other tag or document to a caution tag.

B. Areas for Improvement/Recommendations/Actions Taken

C. Good Practices/Professionalism Observed

Reviewed By D. W. Pina Date 5/10/88 Actions Completed _____ Date _____

Wkly

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|---------|---|-----------|
| ADM-019 | Management on Shift (MOS)
MOS DAILY REPORT | Page
1 |
|---------|---|-----------|

To: Operations Superintendent - Nuclear

Date: 05/10/88

From: Gregg Smith
(MOS Observer)

Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- Shift turnovers (days and peaks)
- Swapping Unit 4 Residual Heat Removal pumps and Heat Exchangers
- 0-OSP-022.5 and 0-OSP-023.1 Emergency Diesel Generator Operability test
- 3-OSP-064 Safety Injector Accumulators
- Swap of mix bed demineralizers (and subject power transient)
- Tour of Unit 3 Secondary Plant
- Start of Unit 3 Auxiliary Feedwater Pump and adjustment of Train 2 Auxiliary Feedwater Flow valve to "C" S/G
- Filling Unit 4 Steam Generator using 4-OSP-079

B. Immediate safety problems

None

C. Questionable work practices

None observed

D. Areas for improvement

4A Intake Cooling Water (ICW) pump ammeter has a maximum value red pointer set at 45 amps. Currently 4A pump is running at 47 amps with an FPL information tag stating that 4A ICW pump runs at 48 amps. Electrical Department states this is all right (T-88 194). If this is the case, a new maximum value should be determined and the meter should be re-marked. In general some of the meters on Units 3 and 4 do not have "red marks". If the "marks" are an operator aid, maximum values should be determined for those pumps and the ammeters should be marked accordingly. The following ammeters are not marked:

Unit 4

4A, B, C, D Containment Cooler Fans
4A, B, Control Rod Drive Motor Coolers
4A1, 2, B1, 2 Circulating Water Pumps
4A Turbine Plant Cooling Water Pump
4B ICW Pump (TPO's written)
Standby Feedwater Pump B

Unit 3

3A, 3B Control Rod Drive Motor
3A, B, C, D Containment Cooler Fan
Standby Feedwater Pump A

E. Professionalism, Summary of Shift, Comments

Unit 3 Reactor Operator did a very good job of controlling the number of people who gathered to observe the adjustment of Train 2 Auxiliary Feedwater Valve to "C" Steam Generator. It could have easily gotten very congested around his control boards and possibly interfered with his ability to operate the plant. He did not allow this to happen. He aggressively ensured that people observing the test were back out of the way.

Completed By: Gregg Smith
MOS ObserverDate: 05/10/88Reviewed By: *[Signature]*
Operations Superintendent- NuclearDate: 5/11/88Management
Review By:

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| <u><i>GB</i></u> | <u>15/11/88</u> | <u><i>[Signature]</i></u> | <u>15/11/88</u> | <u><i>[Signature]</i></u> | <u>15/11/88</u> |
| PM-N | Date | SVP | Date | VP | Date |

To: Operations Superintendent - Nuclear

Date: 05/10-11/88

From: Andrew P. Drake
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

Peak shift

- Peak to Mid shift turnover
- Unit 3, 100% power
- Unit 4, Mode 5
- 3-OP-0051.1, section 7.3 (4160 Volt Bus C)
- 3-OP-064, section 7.1 on B and C Accumulators (Safety Injection Accumulation)
- TP-424, Restoration of Control Room Air Conditioning

Mid shift

- Beginning shift briefing
- 3-OSP-075.2, section 7.1 (Auxiliary Feedwater Train 2 operability)
- 3-OSP-204 (Accident Monitoring Instrumentation Channel Checks)
- 0-OP-0033, section 7.2 (120 V Vital Instrument AC System)
- 4-OP-075, attachment 1 (Auxiliary Feedwater System)
- 4-OP-040, section 7.16 (CVCS - Boron Concentration Control)

B. Immediate safety problems

None

C. Questionable work practices

1. The mid shift PSN requested off-site assistance on a problem with the Control Room Air Conditioning system. The contract person arrived on site (later determined to be at approximately 11:37 PM) and came to the Control Room where he discussed the problem with the PSN. At approximately 1:45 AM, the security supervisor came to the Control Room and informed the PSN that one of the security guards had noticed an odor of alcohol on the contractor's breath when he entered the site. The PSN had the contractor escorted off site after a meeting of all concerned parties. My concern is not with the incident itself but with two items.

- a) Why did Security allow the contractor on site if they had noticed the alcohol smell?

- b) Why did it take approximately 2 hours for Security to notify the PSN that they had permitted this person on site?

A policy/procedure needs to be developed to assist the PSN/PSN with the situation identified in Section C and similar types or situations. The mid shift PSN/PSN handled this uncomfortable situation extremely well, given the situation.

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D. Areas for improvement

1. A PWO was entered on 9/17/87 to replace a broken lock on Unit 3 control rack #9. The work request (WA872600835) was cancelled due to "lock was repaired on blanket PWO, checked lock on 4/12/88, works fine". However the deficiency tag (C307441) was still on the cabinet door and the lock is still missing. A new PWO was entered to replace the cancelled work request.
 - a) This PWO should not have been cancelled. If the work was completed it should have been coded out.
 - b) Since this PWO was cancelled the deficiency tag should have been removed.
 - c) What checks are in place to verify work actually performed prior to cancelling PWOs?
2. On mid shift the computer room temperature increased above 90 degrees requiring both channels of the Qualified Safety Parameter Display System (QSPDS) to be declared inoperable. When the computer room temperature decreased to less than 90 degrees 3/4-OP-204 "Accident Monitoring System Channel Checks" was performed to determine QSPDS operability. Technical Specifications defines a "channel check" as a "qualitative assessment of channel behavior during operation by observation. This determination shall include, where possible, comparison of the channel indication and/or status with other indications and/or status derived from independent instrument channels measuring the same parameter.

3/4-OP-204 had channels A and B of QSPDS compared to each other. If both channels were declared out-of-service it does not seem a channel check would be appropriate. For both a test similar to an analog channel operational test or channel calibration.

E. Professionalism, Summary of Shift, Comments

1. Mid shift uses a "Plan of the Shift" on their beginning shift briefing. A copy of it is handed out to all in attendance. The form contains the equipment out-of-service summary, units status and major shift objectives. I found this to be very helpful in following the briefing and also insuring everyone had the same information.

Completed By: Andrew P. Drake
MOS ObserverDate: 05/10-11/88Reviewed By: *[Signature]*
Operations Superintendent- NuclearDate: 5/11/88Management
Review By:

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| <u><i>[Signature]</i></u> | <u>15/11/88</u> | <u><i>[Signature]</i></u> | <u>15/11/88</u> | <u><i>[Signature]</i></u> | <u>15/11/88</u> |
| PM-N | Date | SVP | Date | VP | Date |
| | | | | | 05/10-11/88 |

To: Operations Superintendent - Nuclear

Date: 05/10-11/88

From: Thomas D. Joseph
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3, 100% Steady State operation
- Unit 4, Mode 5 return to service continued
- Toured Secondary side
- Toured Intake Structure
- Watched Containment Purge Exhaust Isolation Valve Stroke Test (POV-4-2602). Test failed. Resolution left for day shift

B. Immediate safety problems

None

C. Questionable work practices

None

D. Areas for improvement

1. Approximately 5" to 6" diameter holes in external flood wall located on south side of Turbine Building elev. 18' (2 locations) should be repaired in accordance with specification 5177-074-C-103. PWO 401051 written.
2. Previous MOS reports (most recent 5/1-2/88 night) have recommended removal of wood and chicken wire structure tie wrapped to back of generator and main transformer panel 4 C II (G) and auxiliary and startup transformer panel 4 C II (T). I strongly recommend removal. PWO previously written.
3. Also previous MOS reports recommend proper support or removal of miscellaneous loose equipment or structure in the Cable Spreading Room. Any miscellaneous loose equipment or structures installed in the power block area should be accomplished with a PCM (DEEP OREP). For items not installed under a PCM that are required to remain the necessary paper work should be processed to authorize JPE to evaluate those items.

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E. Professionalism, Summary of Shift, Comments

Shift turnover was organized and a team spirit was displayed.

Completed By:

Thomas D. Joseph

MOS Observer

Date: 05/10-11/88

Reviewed By:

J. W. Pearce

Operations Superintendent - Nuclear

Date:

5/11/88Management
Review By:C/B
PM-N15/11/88
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SVR15/11/88
Date[Signature]
VP15/11/88
Date

05/10-11/88

Date Started 05/10/88

PSN MOS

Date Finished 05/11/88

Initiating PSN Schimkus PSN _____ Completed PSN Schimkus
Initiating APSN Dallan APSN _____ Completed APSN Dallan

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

1. There seemed to be some confusion in which path to take on Purge Exhaust Valve POV-4-2602 following it's final failure stroke on midshift.
-I&C Supervisor had a good game plan to vary the supply pressure to lower the valve exhausting pressure on closure, however Maintenance felt that entering the exhaust plenum to inspect the valve seats was viable.
-PSN felt that any further valve cycling may damage seats.

Actions Taken: PSN at 0400 stopped work on POV-2602 until a well planned "action attack" was formulated.

Recommendations: Good game plans for backshift maintenance to follow.

C. Good Practices/Professionalism, Observed

1. Control Room Air Conditioning went out-of-service on late peak shift. The APSN immediately complied to TP-424 which allows jumpering the air conditioning units and returning them to service. He also immediately found the inoperable "B" chiller.
2. The midshift Unit 4 RCO cautioned PSN that the Unit 3 and 4 Qualified Safety Parameter Display System (QSPDS) (all channels) would be out-of-service at 90° F. in Computer Room. He was 100% correct per his minimum equipment verification sheet. He also followed up with reports on the increase to and beyond the 90° F limit with no previous prodding. Excellent response.

Reviewed By _____ Date _____ Actions Completed _____ Date _____

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| 0-ADM-019 | Management on Shift (MOS)
MOS DAILY REPORT | Page
1 |
|-----------|---|-----------|

To: Operations Superintendent - Nuclear

Date: 05/11/88

From: Gregg M. Smith
(MOS Observer)

Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- 3-OSP-059.5, Attachment 6, Adjustment of Gain Pots for Nuclear Instrumentation
- 0-OSP-062.7, Safety Injection Pump In-Service Test
- Operating Procedure 1604.1, Control Rod Exercise
- 3-OSP-075.7, Auxiliary Feedwater Train 2 Backup Nitrogen Test

B. Immediate safety problems

None observed

C. Questionable work practices

None observed

D. Areas for improvement

None for today

E. Professionalism, Summary of Shift, Comments

The third RCO prior to the conduct of 3-OSP-075.7 (Auxiliary Feedwater Train 2 Backup Nitrogen Test) conducted an excellent pre-evolution briefing with the operators who were going to be involved with the test. At the briefing, precautions, the procedure itself, and coordination of the test were discussed. As a result, the test went very smoothly.

Completed By: Gregg M. Smith
MOS Observer

Date: 05/11/88

Reviewed By: [Signature]
Operations Superintendent - Nuclear

Date: 5/11/88

Management
Review By:

PM/N 15/12/88 SVP 15/12/88 VP 15/12/88
Date Date Date
05/11/88

To: Operations Superintendent - Nuclear

Date: 05/11-12/88

From: Andrew P. Drake
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

Peak shift

- 3-OSP-056.1, section 7.2 (Emergency Containment Filter Fans operating test)
- 3-OSP-064, section 7.1 [B and C Accumulators] (Safety Injection Accumulators)
- TP-398, Unit 4 ECC Test
- Drain down of Unit 4 Condenser Hotwell via lower drains
- Peak/Mid shift turnover

Mid shift

- Mid shift briefing
- Tour Turbine Building and outside areas
- 3-OSP-041.1 (Reactor Coolant Leak Rate Calculation)
- 3-OSP-067.1 (Process Radiation Monitor Operability Test)
- 4-OP-075, Attachments 1, 2 and 3 (Auxiliary Feedwater System)
- 4-OP-041.1, Section 5.1 [4A RCP start] (Reactor Coolant Pump)

B. Immediate safety problems

None observed

C. Questionable work practices

Unit 3 Train A and B Qualified Safety Parameter Display System (QSPDS) was returned to service based on completion of 3-OP-204, which is a channel check of the accident monitoring system. The system was declared inoperable the previous day because the Computer Room temperature increased above 90 degrees.

There have been past incidents where the Computer Room temperature approached 90 degrees and the QSPDS displays started to display erratically. This would seem to indicate that some portions of the QSPDS is affected at this temperature range. When both channels are declared inoperable due to Computer Room temperatures, a diagnostic routine should be run on the QSPDS computer to determine its operability then each data display should be verified operable by comparison to alternate indication and not to each other channel as performed in 3/4-OP-204.

D. Areas for improvement

Unit 4 Condenser Pit needs to be cleaned of sand left behind after sand blasting was completed during the repainting of the components in the pit.

E. Professionalism, Summary of Shift, Comments

Nice quiet night, everything ran smoothly.

Completed By: Andrew P. Drake
MOS Observer

Date: 05/11-12/88

Reviewed By: *[Signature]*
Operations Superintendent - Nuclear

Date: 5/11/88

Management
Review By:

[Signature] 15/12/88 *[Signature]* 15/12/88 *[Signature]* 15/12/88
PM-N Date SVP Date VP Date

05/11-12/88

To: Operations Superintendent - Nuclear

Date: 05/11-12/88

From: Thomas D. Joseph
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3, 100% Steady State Operation
- Unit 4, Mode 5 return to service continued
- Toured Intake Structure
- Toured Component Cooling Water (CCW) Pump Room including installation of Continuous Tube Cleaning system
- Observed response to high differential pressure alarm for travelling water screen
- Observed continuing repair efforts for Purge Exhaust Isolation Valve (POV-4-2602)
- Observed shift turnover

B. Immediate safety problems

None

C. Questionable work practices

None

D. Areas for improvement

4B CCW Heat Exchanger cathodic protection probe should be repaired or replaced. Existing rope (holding probe) rags, funnel and hose (connecting leaking water from heat exchanger) should also be removed. Plant management to determine appropriate action.

E. Professionalism, Summary of Shift, Comments

Shift turnover was organized and a team spirit was displayed. High differential pressure alarm for travelling water screen was taken care of quickly and effectively.

Completed By: Thomas D. Joseph
MOS Observer

Date: 05/11-12/88

Reviewed By: 
Operations Superintendent - Nuclear

Date: 5/11/88

Management
Review By:

QJB 15/12/88 JPD 15/12/88 7/15 1 5/12/88
PM/N Date SVP Date VP Date
05/11-12/88

PSN MOS

Date Started 05/11/88

Date Finished 05/11/88

Initiating PSN Anderson PSN _____ Completed PSN Anderson

Initiating APSN Reese APSN _____ Completed APSN Reese

A. Questionable Work Practices/Actions Taken/Recommendations

B. Areas for Improvement/Recommendations/Actions Taken

Recently we have had several A1 and B1 priority PWO's come up on the back shift. Most of the time we have had no GEM's coverage. Big delays in getting important equipment back in service have occurred due to having to call someone from home to put a package together. This is an important 24 hour a day job and I recommend 24 hour coverage.

C. Good Practices/Professionalism Observed

Reviewed By [Signature] Date 5/11/88 Actions Completed _____ Date _____

| | | |
|------------------------------|----------------|-------------------------------|
| Date Started <u>05/12/88</u> | PSN MOS | Date Finished <u>05/12/88</u> |
|------------------------------|----------------|-------------------------------|

Initiating PSN Salkeld PSN _____ Completed PSN Salkeld
Initiating APSN Guyer APSN _____ Completed APSN Guyer

A. Questionable Work practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

None

C. Good Practices/Professionalism Observed

Yes

Reviewed By *W. P. ...* Date 5/11/88 Actions Completed _____ Date _____

PSN MOS

Date Started 05/11/88

Date Finished 05/12/88

Initiating PSN Schimkus PSN _____ Completed PSN Schimkus

Initiating APSN Dallan APSN _____ Completed APSN Dallan

A. Questionable Work Practices/Actions Taken/Recommendations

1. A PWO was placed on Unit 3 BTV-3-1524 on 5/7/88. It is understandable not being able to work the steam leak yet but the lagging hasn't been removed yet to inspect the leak. The leak is on 6B Feedwater Heater and every individual who comes in the Control Room asks what we are doing about the leak. The leak is becoming worse daily. Why can't the valve at least be inspected so an on-line repair tactic can be accomplished? PWO work information attached.

B. Areas for Improvement/Recommendations/Actions Taken

1. Painters who did sandblasting in the Unit 4 Condenser Pit area did not clean sand between condensers causing water to back up on the west side of condenser pit while Operations is trying to free drain the condenser for anticipated unit start up. This should have been washed out from between condensers after sandblasting.
2. It takes approximately 8-12 hours to drain the condenser thru the Baker valves from normal operating level. In cases where a condenser leak dictated this drain method for refill, added time to the schedule is incurred. Recommend large volume drain pumps be installed, with discharge to canal.

C. Good Practices/Professionalism Observed

On PSN tour it was noticed that the field operators are doing an excellent job identifying steam leaks, water leaks and faulty equipment utilizing PWO's. This is quite a change from observations I made 3 to 4 years ago.

Reviewed By SWT Date 5/11/88 Actions Completed _____ Date _____

To: Operations Superintendent - Nuclear

Date: 05/12/88

From: Gregg M. Smith
(MOS Observer)Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- Shift turnover (days and peaks)
- 0-OSP-075.9; Auxilliary Feedwater Overspeed Test

B. Immediate safety problems

None observed

C. Questionable work practices

None observed

D. Areas for improvement

1. Procedure 0-ONOP-103, "Control Room Inaccessibility", is located at the Auxilliary Feed Pump Room. It is stamped with a "verify the latest OTSC is incorporated prior to use" notation. If a situation arises where the Control Room must be evacuated, is it reasonable to expect that time will be expended to verify the latest OTSC is incorporated prior to using the procedure? Also, if the situation arises after normal working hours and the Control Room is inaccessible, how will the operators verify the latest OTSC? I recommend that for this type procedure, the latest OTSC be incorporated in a timely manner, and the stamp for those procedures not be utilized.
2. Procedure 0-OSP-075.9 "Auxilliary Feedwater Overspeed Test" does not contain any precaution concerning maximum allowable RPM during the test in the "Precautions" section of the procedure. There is a caution not to exceed 6600 RPM prior to conducting the mechanical overspeed section of the procedure. I recommend that caution be added to the precaution section of the procedure. Also a caution not to exceed a set RPM should be added prior to the electrical overspeed section. The system engineer (Dave Dvorak) recommended not exceeding 6300 RPM for the electrical overspeed section.

B. Professionalism, Summary of Shift, Comments

No unprofessional behavior was observed during the shift.

Completed By:

Gregg M. Smith

MOS Observer

Date: 05/12/88

Reviewed By:

L. W. Pearce
Operations Superintendent- NuclearDate: 5/13/88Management
Review By:GM
PM-N15/13/88
DateMA
SVP15/13/88
Date1
VP1
Date

To: Operations Superintendent - Nuclear

Date: 05/12-13/88

From: Andrew P. Drake
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

Peak shift

- Peak/mid shift turnover
- 4-OSP-059.1 (N-32) Gamma Metrics Excore Flux Monitoring System Channels Refueling Calibration
- OP-0204.2 Appendix E Section 2; Periodic Tests, Checks and Operating Evolutions
- 3-OP-019 Section 5.3, Intake Cooling Water System
- 3-OSP-090.1 Section 7.0, Main Generator Exciter Fuse Inspection
- 3-OSP-064 Sections 7.2 and 7.11, Safety Injection Accumulators
- 3-OSP-067.1 Section 7.7, Process Radiation Monitoring Operability Test
- 3-OSP-059.1 (N-31/32), Source Range Nuclear Instrumentation Analog Channel

Mid Shift

- 3/4-OSP-092.1, Auxilliary Transformer Periodic Test
- 0-OP-046 Section 7.16, Chemical and Volume Control System Boron Concentration Control
- 4-OP-008 Section 5.1 Turbine Plant Cooling Water
- 3-OSP-041.1, Reactor Coolant Pump
- OP-0204.2, Site Evacuation Alarm Test
- Work on POV-4-2602, Containment Purge Exhaust Isolation Valve
- 4B Component Cooling Water Heat Exchanger Amertap work
- Mid shift briefing

B. Immediate safety problems

None observed

C. Questionable work practices

None observed

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D. Areas for Improvement

While observing work on POV-4-2602 on the mid shift, two workers were observed working 8-12 feet off the ground without safety belts. One was holding onto the scaffold structure with one hand while pulling a chain hoist with the other. Two other workers were observed working under the scaffold area without wearing their hard hats. The hard hats and safety belts were on the ground. There are no walkways on the scaffold. Ralph Tertrick was informed of the situation and he promptly checked the work site and informed the workers to use their safety equipment.

Proper use of safety equipment should be reviewed during all job briefings to emphasize its importance to the job.

E. Professionalism, Summary of Shift, Comments

None

Completed By: Andrew P. Drake
MOS Observer

Date: 05/12-13/88

Reviewed By: *L.W. Pearce*
Operations Superintendent- Nuclear

Date: 5/13/88

Management
Review By:

CJB 15/13/88 *JP* 15/13/88
MOS Observer Date SVP Date VP Date

To: Operations Superintendent - Nuclear

Date: 05/12-13/88

From: Thomas D. Joseph
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3, 100% steady state operation
- Unit 4, Mode 5, return to service efforts continued
- Toured secondary side
- Toured Inverter Room and Cable Spreading Room
- Toured Component Cooling Water Pump Room
- Observed continuing repairs efforts for Purge Exhaust Isolation Valve (POV-4-2602)
- Observed Unit 3 RCO, M. Wilson, perform procedure 3-OSP-059.1, Source Range Nuclear Instrumentation Analog Channel Test

B. Immediate safety problems

None

C. Questionable work practices

None



D. Areas for improvement

Equipment and miscellaneous items should not be attached to plant structures without proper documentation (shall have a PCM or TSA with safety evaluation). Previous MOS reports have listed examples and another example is:

Chicken wire and wood fence was installed on Auxiliary Building roof between Units 3 and 4 Containment. It is attached to existing plant HVAC supports and conduit supports. Unistrut is also attached to Unit 4 Containment. Chicken wire is also attached to Auxiliary Building roof with what appears to be powder-actuated fasteners. Powder-actuated fasteners should not be used in the power block area without JPE prior approval.

Recommend plant Q.C. initiate an NCR for these as found conditions so they will be evaluated.

E. Professionalism, Summary of Shift, Comments

1. Shift turnover was organized and a team spirit was displayed.
2. Unit 3 RCO performed 3-OSP-059, Gamma Metrics Excore Flux Monitoring Systems Refueling Calibration procedure, in an organized and efficient manner.

Completed By: Thomas D. Joseph
MOS Observer

Date: 05/12-13/88

Reviewed By: L.W. Paine
Operations Superintendent - Nuclear

Date: 5/13/88

Management
Review By:

QW 15/13/88 QAO 15/13/88

Date Started 05/11/88

PSN MOS

Date Finished 05/12/88

Initiating PSN Schimkus PSN _____ Completed PSN Schimkus

Initiating APSN Dallau APSN _____ Completed APSN Dallau

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

None

C. Good Practices/professionalism Observed

Normal night - Routine Operations

L. D.

05/12/88

Actions Completed

Date

| | | |
|------------------------------|----------------|-------------------------------|
| Date Started <u>05/12/88</u> | PSN MOS | Date Finished <u>05/12/88</u> |
|------------------------------|----------------|-------------------------------|

Initiating PSN Salkeld PSN _____ Completed PSN Salkeld

Initiating APSN Guyer APSN _____ Completed APSN Guyer

A. Questionable Work practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

4A Turbine Plant Cooling Water Pump Motor has excessive vibration. This is a problem which both Electrical and Mechanical Maintenance have worked on for this pump. I requested Technical Department determine the root cause and solution to this problem.

C. Good practices/Professionalism Observed

Yes

L. D.

Date 5/13/88

Actions Completed

Date



| | | |
|------------------------------|----------------|-------------------------------|
| Date Started <u>05/12/88</u> | PSN MOS | Date Finished <u>05/13/88</u> |
|------------------------------|----------------|-------------------------------|

Initiating PSN Schimkus PSN _____ Completed PSN Schimkus
Initiating APSN Dallau APSN _____ Completed APSN Dallau

A. Questionable Work practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

None

C. Good Practices/Professionalism Observed

Routine Operations

Reviewed By L.W. Parie Date 5/13/88 Actions Completed _____ Date _____

To: Operations Superintendent - Nuclear

Date: 5/13/88

From: Gregg M. Smith
(MOS Observer)Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- o Shift turnover's (Days & Peaks)
- o Installation of Grounding Device in 4AA02 4KV Bus FD from Unit 4 Auxiliary Transformer
- o 3-OP-047 CVCS-Charging and Letdown (Sect. 7.1 Borating a New Mixed Bed Demineralizer)
- o Swapped Component Cooling Water Pumps - Unit 4

B. Immediate safety problems

None observed

C. Questionable work practices

None observed

D. Area(s) for improvement

1. While borating a new mix bed demineralizer using 3-OP-047 prior to placing it in service, Radiation Monitor R-14 alarmed indicating an unplanned release of radioactive gas occurred. It is believed at this point that the release occurred as a result of borating the demineralizer. This resulted from water flowing out the drain to the Waste Hold Up Tank. This tank vents to the plant stack. Borating the demineralizer resulted in gases coming out of solution which were vented to the stack. It is recommended that engineering evaluate the system and incorporate a modification to prevent or stop such a release if possible.
2. In the interim, it is recommended that a caution be added to the procedure to inform the operator of the potential for such a release.



E. Professionalism, Summary of Shift, Comments

The Unit 3 RCO and APSN reacted in a competent and professional manner to the radioactive release during the borating the demineralizer evolution. The operator responded in accordance with procedures O-ONOP 11108.1 (Area Radiation Monitoring System) and 3-ONOP-067 (Inadvertent Release of Radioactive Gas). The APSN provided the required assistance and supervision and insured that the requirements of AP 0103.12 (Notification of Significant events to NRC) were not satisfied and a notification was not required. The crew's reaction to the event ensured that the off-site release did not endanger the public and no contamination of the plant or it's personnel resulted.

Completed By: Gregg M. Smith
MOS Observer

Date: 05/13/88

Reviewed By: *[Signature]*
Operations Superintendent - Nuclear

Date: 5/16/88

Management
Review By:

[Signature] 5/16/88 *[Signature]* 5/16/88
PM-N Date SVP Date VP Date

Date Started 05/13/88

PSN MOS

Date Finished 05/13/88

Initiating PSN G. G. Jones PSN _____ Completed PSN _____

Initiating APSN W. G. Haley APSN _____ Completed APSN _____

A. Questionable Work Practices/Actions Taken/Recommendations

No Comment

B. Areas for Improvement/Recommendations/Actions Taken

While Borating a new Mixed Bed Demineralizer, Plant Radiation Monitoring System Channel R-14 increased in counts to 150K which was released to the plant vent. This was caused by draining the Demineralizer to the Waste Holdup Tank, which is vented to atmosphere.

Area for Improvement: Have automatic vent cutoff on R-14 high level alarm from Waste Holdup Tank or reroute to vent header.

C. Good Practices/Professionalism Observed

No Comment

Reviewed By W. G. Haley Date 5/16/88 Actions Completed _____ Date _____



Date Started 05/13/88

PSN MOS

Date Finished 05/13/88

Initiating PSN T. P. Anderson PSN _____ Completed PSN _____

Initiating APSN T. A. Reese APSN _____ Completed APSN _____

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

None

C. Good Practices/Professionalism Observed

None

Reviewed By *T. A. Reese* Date 5/16/88 Actions Completed _____ Date _____

To: Operations Superintendent - Nuclear

Date: 05/13-14/88

From: Andrew P. Drake
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

Peak Shift

- o Peak/mid shift turnover
- o Valve in new Mixed Bed Demineralizer, Unit 3
- o Normal operations and logs on Units 3 and 4
- o Unit 3, 100% power
- o Unit 4, Mode 5

Mid Shift

- o Mid shift briefing
- o Normal operations and logs
- o Dump flush of Unit 4 Condenser
- o 4 hour notification event on Unit 3 and 4, 887 valves by peak shift.

B. Immediate safety problems

None observed

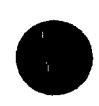
C. Questionable work practices

None observed

D. Area(s) for improvement

1. So far this week Unit 4 has been used for spare parts for Unit 3. On one occasion a bolt was removed from Unit 4 valve 6275A and used to replace a bolt on Unit 3 6275 valve. Tonight a comparator circuit card was removed from a Unit 4 Steam Generator level channel to replace one on Unit 3 Steam Generator level channel so a periodic test could be performed. Sufficient spare parts should be maintained, including qualified spare parts, so that parts are not scavanged from the shutdown Unit.
2. I concur with the comments of Thomas Joseph on the planning/work of POV-2602. In addition there was very little communication with the Unit 4 RCO. The mid-shift Unit 4 RCO was not comfortable with the progress reports during the work.
3. Mechanical Maintenance and I & C Maintenance did not attend mid-shift prebriefing.

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E. Professionalism, Summary of Shift, Comments

The peak shift handled the 887 valve event in a timely professional manner. There were a few rough spots with obtaining current procedures and drawings from Document Control, but the PSN and APSN kept on top of the situation until all documents were ready.

Completed By: Andrew P. Drake
MOS Observer

Date: 05/13-14/88

Reviewed By: *A.W. Pearce*
Operations Superintendent- Nuclear

Date: 5/16/88

Management
Review By:

C/N *5/16/88* *gpo* *5/16/88* *1*
PM-N Date SVP Date VP Date



To: Operations Superintendent - Nuclear

Date: 05/13-14/88

From: Thomas D. Joseph
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- o Unit 3, 100% steady state operation
- o Unit 4, Mode 5, return to service efforts continued
- o Toured secondary side
- o Observed continuing repair efforts for Purge Exhaust Isolation Valve (POV-4-2602)
- o Observed turnover of Plant Change/Modification (PCM's) 88-148 and 88-150

B. Immediate safety problems

None

C. Questionable work practices

None

D. Area(s) for improvement

- (1) Coordination for turnover of PCM's 88-149 and 88-150 on isolation valve 887 did not progress smoothly. Startup and drawing update kept people over to revise Plant Operating Diagram (POD) 5610-T-E-4510 Rev. 80. on Friday night; Engineering (JPE) did not. POD's have 24 hours to be signed off. Operations APSN confirmed fact that plant wanted POD signed off as soon as possible. At 1:00 AM Saturday, engineering was called to sign POD. All groups involved should have worked out action plan in advance.
- (2) Purge Exhaust Isolation Valve (POV-4-2602) coordination effort for repairs and modifications could have been better organized and preplanned. Modifications were being considered on Wednesday, 5/11, but Engineering was not initiated until late Friday, 5/13.



E. Professionalism, Summary of Shift, Comments

Shift turnover was not as organized as previous nights. PSN tried to run organized meeting; however, various plant departments were not present or showed up late. It should be reemphasized to all departments that shift prebriefing attendance is required.

Completed By: Thomas D. Joseph
MOS Observer

Date: 05/14/88

Reviewed By: *S.W. Pearce*
Operations Superintendent - Nuclear

Date: 5/16/88

Management Review By: *CJB* 15/16/88 *MD* 15/16/88 1
PM-N Date SVP Date VP Date

| | | |
|-----------|---|-----------|
| 0-ADM-019 | Management on Shift (MOS)
MOS DAILY REPORT | Page
1 |
|-----------|---|-----------|

To: Operations Superintendent - Nuclear

Date: 5/14/88

From: Gregg M. Smith
(MOS Observer)

Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- o Shift turnover (Days)
- o Tripping of Reactor Protection Bistables as per Off-Normal Procedure 0208.14 to support Instrumentation and Control Maintenance.
- o 4-OP-047.1, Volume Control Tank Gas Space Concentration Control (Nitrogen Purge of Volume Control Tank)
- o Performance of 4-OP-9404.2, 4160V and 480V Switchgear Under Voltage Test.

B. Immediate safety problems

None observed

C. Questionable work practices

None observed

D. Area(s) for improvement

- (1) I observed the tripping of reactor protection bistables in accordance with procedure ONOP-0208.14 so I & C could perform required maintenance. I recommend the following procedural changes to ensure reactor safety is maintained during the performance of the procedure:
 - a. A caution should be added prior to the actual tripping of the bistables stating something to the effect of "ensure that tripping of the bistables will not result in making up the required coincidence for a reactor trip or safety injection". This will remove the potential of an inadvertent trip or safety injection.
 - b. A step should be added to have the unit RCO verify the proper bistables were tripped by checking the Reactor Protection Logic Station Panels on the control board.
 - c. A step should be added to check Technical Specifications to ensure minimum degree of redundancy is satisfied. Right now the procedure mentions something about checking to see about an "unusual event".

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- (2) 4-OP-019, Intake Cooling Water (ICW) System, has a section for "Swapping Intake Cooling Water Pumps" and a section for "ICW Pump Start (System in Operations)". The same basic steps are contained in each section except the section for starting a pump requires initials for each step and the section for swapping pumps does not require initials. I recommend that the procedure be reviewed and be made consistent either requiring initials or not.

B. Professionalism, Summary of Shift, Comments

No unprofessional conduct was observed.

Completed By: Gregg M. Smith
MOS Observer

Date: 5/14/88

Reviewed By: *[Signature]*
Operations Superintendent - Nuclear

Date: 5/16/88

Management
Review By:

CPB 15/16/88 *[Signature]* 5/16/88
PM-N Date SVP Date VP Date

To: Operations Superintendent - Nuclear

Date: 5/14-15/88

From: Andrew P. Drake
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- o Unit 3, 100% Power
- o Unit 4, Mode 5
- o Peak/mid shift turnover
- o Mid-shift briefing
- o Tour outside areas (Water Treatment Plant, Intakes, Etc.)
- o Observed mid-shift raking of Intake screens

B. Immediate safety problems

None observed

C. Questionable work practices

None observed

D. Area(s) for improvement

- (1) Recent rain storms kicked up a lot of grass and seaweed as the Intake Structure. Two of the four Intake rakes malfunctioned during the raking process and required repair. I also noted a large amount of floating weeds and grass at the Intake area. The Watch Engineer asked Mechanical Maintenance to assign some helpers to skim off the surface before the material was drawn into the Intakes. Over an hour and a half elapsed before anyone started to clean that area. By this time at least 50% of the surface material appeared to have been drawn into the Unit 3 1A Intake Cooling Water (ICW) pump area. The PSN had the pump stopped and a caution tag placed on it to ensure the Intake was raked before the pump was restarted.
- (2) Since this seems to be a common occurrence after heavy rains, I recommend a plan be developed to have a crew assigned and properly equipped to clean the surface crud before it is drawn into the Intakes.



E. Professionalism, Summary of Shift, Comments

Mid-shift NPO's were persistent in raking the Intake screens even though half the rakes did not function properly and they were unsuccessful in raking the 3B2 pit after several attempts and 3 different rakes.

Completed By: Andrew P. Drake
MOS Observer

Date: 5/15/88

Reviewed By: L.W. Fenn
Operations Superintendent - Nuclear

Date: 5/16/88

Management
Review By:

AMB 15/16/88 VP 1 5/16/88
PM/N Date SVP Date VP Date

To: Operations Superintendent - Nuclear

Date: 5/14-15/88

From: Thomas D. Joseph
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- o Unit 3, 100% steady state operation
- o Unit 4, Mode 5 return to service efforts continued
- o Toured secondary side
- o Toured Intake Structure
- o Toured RCA
- o Observed continuing repair efforts for Purge Exhaust Isolation Valve (POV-4-2602)
- o Observed cleaning of trash rack effort at Intake Structure

B. Immediate safety problems

None

C. Questionable work practices

None

D. Area(s) for improvement

Tour of plant generally showed plant in good shape with the following exceptions:

- (1) Unit 3 has a couple steam leaks in Turbine Building area. (See PSN for details and PWO's)
- (2) Discharge area Unit 4 - cable trays .4 YCA 10 and 34BA95 are corroded and have some rungs totally gone.
- (3) Unit 3 blowdown line - (western most) last support before entering discharge canal is moving upward with blowdown line while the line is blowing down. It also is missing an anchor bolt or expansion anchor.

- (4) Unit 3 and Unit 4 Discharge Structure has eroding and scaling concrete on its piers. Unit 3 north and south piers look the worst.
- (5) Large spalled area of concrete on Unit 3 turbine deck west side by crane rail.
- (6) A Rosemont transmitter is U-bolted to hand rail. Tag number on transmitter PTG015F does not show up on T.E. drawing for the system. (5610-T-E-4062 Sht. 2). No equipment should be mounted off handrail. It appears to be installed without proper documentation.
- (7) A post has shown up in front of PT-4-474 (Channel #2 steam pressure). It appears to be installed without proper documentation.

Recommendations:

- (1) I recommend plant QC initiate NCR's for items 2,3,4 and 5 to address as found conditions.
- (2) Items 6 and 7 appear to be configuration control problems.

E. Professionalism, Summary of Shift, Comments

- (1) Check on security guards at various posts showed all were alert and manning their stations.
- (2) Shift turnover meeting was organized.

Completed By: Thomas D. Joseph

MOS Observer

Date: 5/15/88Reviewed By: *S. W. Pearce*

Operations Superintendent- Nuclear

Date: 5/16/88Management
Review By:*QMB*
PM/N15/16/88
Date*gnd*
SVP15/16/88
Date1
VP1
Date

Date Started 05/13/88

PSN MOS

Date Finished 05/14/88

Initiating PSN W. C. Schimkus PSN _____ Completed PSN W. C. Schimkus

Initiating APSN A. Dallau APSN _____ Completed APSN A. Dallau

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

1. At midnight it appeared that POV-4-2602 Maintenance activity was in hold due to unclear instructions to Mechanical Maintenance of what needed to be adjusted on the valve, at the I & C Supervisors request. PSN called a conference of all associated departments to get a feel for their instructions. It was obvious that I & C's only instruction was to install a parallel path for Dump Solenoids. PSN and shift department supervisors had to form a regimented plan based on sketchy information and numerous calls to the members of the Event Response Team (ERT). Work continued across the midshift and possible progress was made.

Recommendation: Have plans made, and written up which can cover what progress should be made and contingency actions if the planned action is unsuccessful. These plans should be in the hand of each individual responsible for that job's progress.

C. Good Practices/Professionalism Observed

1. The Mid-shift Maintenance/PSN meeting was well received by the onshift maintenance force who responded to the results of our meeting plans with a professional attitude.

Reviewed By *A. Dallau* Date 5/16/88 Actions Completed _____ Date _____

Date Started 05/14/88

PSN MOS

Date Finished 05/15/88

Initiating PSN W. C. Schimkus PSN _____ Completed PSN W. C. Shimkus

Initiating APSN A. Dallau APSN _____ Completed APSN A. Dallau

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

None

C. Good Practices/Professionalism Observed

None

Reviewed By *W. C. Schimkus*

Date 5/16/88

Actions Completed _____

Date _____

100



Date Started 05/15/88

PSN MOS

Date Finished 05/15/88

Initiating PSN G. G. Jones PSN _____ Completed PSN _____

Initiating APSN _____ APSN _____ Completed APSN _____

A. Questionable Work Practices/Actions Taken/Recommendations

No Comment

B. Areas for Improvement/Recommendations/Actions Taken

We have a major problem which may shut both Units down one of these days. Every time it rains we have grass carrying over on traveling screens and this causes high differential pressures (DP) on all strainers. We get 4 feet and greater water falls on occasion because DP indications are not working and auto start of traveling screens doesn't work. Are we placing the necessary emphasis on corrective action or do we get complacent because its not raining and we have no problem now?

Recommendations:

1. Expedite weir pit fix as explained by Jim Webb.
2. Expedite repair of traveling screen differential pressure instrumentation.
3. Expedite a fix on proper operation of grizzly rake: etc. 1) Does rake need to be heavier? or 2) do rack guides need to be replaced?
4. Expedite repairs to obtain proper auto operation of traveling screens.

C. Good Practices/Professionalism Observed

No Comment

Reviewed By A. W. Lewis Date 5/16/88 Actions Completed _____ Date _____

To: Operations Superintendent - Nuclear

Date: 5/15/88

From: Gregg M. Smith
(MOS Observer)Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- o Shift turnover (Days, Peaks)
- o Toured the Secondary Plant
- o Toured the intake structure
- o Observed normal operations - Unit 3

B. Immediate safety problems

None observed

C. Questionable work practices

None observed

D. Area(s) for improvement

During the course of the shift, I observed 5 Instrumentation Technicians work on the Main Control Board indicator light for the containment personnel hatch. At approximately 0630, a technician investigated the problem and determined the problem was not at the indicator light but in the linkage. He then left the Control Room. At approximately 0930, two more technicians entered the Control Room and started to trouble shoot the indicator light. They appeared to check the same things the first technician did and they also determined the problem was not in the indicator light but in the linkage. They left the control room approximately 1030 stating that they were getting ready to leave for the day. At approximately 1330 two more technicians entered the Control Room to troubleshoot the indicator light. I told them that the previously 3 technicians had investigated the light and had determined the indicator light was not faulty. They still spent approximately 10 minutes looking at the indicator. They then confirmed the problem was at the linkage and left the Control Room stating that they were just confirming what the other technicians had done. I asked if they had gotten a turnover from the other technicians about the status of the trouble shooting and they said they had but I am not convinced. The technicians left and approximately 20 minutes later the light became operable. I recommend that a better turnover take place (if any takes place now). This will hopefully reduce the I & C Maintenance time on repair items.

4 12 2
6 1 2
10 1 2



To: Operations Superintendent - Nuclear

Date: 05/15-16/88

From: Andrew P. Drake
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3, 100% power
- Unit 4, Mode 5
- Normal Operations and Logs

B. Immediate safety problems

None observed

C. Questionable work practices

None observed

D. Areas for improvement

1. Unit 3 Moisture Separator Reheater (MSR) ^{Timing Valve} has been out-of-service 2 years since 5/16/86, (PWO #C058291). Since this time 20 startups and 20 shutdowns have been performed which require manual heatups/cooldowns of the MSR's. The optimum way to perform these is using the automatic timer.
2. The fence across the Intake Water Structure is falling down. The north section has already fallen into the water. This fence needs to be reinstalled.
3. Testing of the "B" Emergency Diesel Generator was delayed due to equipment being out-of-service and the procedure requiring data from these out-of-service instruments. The tachometer has been out-of-service since 7/27/86 (PWO #060724) and water outlet temperature indication since 4/8/87 (TSA #3-87-23-35 the PWO written on 12/24/87 #315773). Also note that the "A" EDG Tachometer is now out-of-service as of 2/21/88 (PWO #306710).

E. Professionalism, Summary of Shift, Comments

None

Completed By: Andrew P. Drake
MOS Observer

Date: 05/15-16/88

Reviewed By: [Signature]
Operations Superintendent - Nuclear

Date: 5/16/88

Management
Review By:

PM-N 5/16/88 Date SVP 5/16/88 Date VP 5/15-16/88 Date

E. Professionalism, Summary of Shift, Comments

No unprofessional behavior was observed

Completed By: Gregg M. Smith
MOS ObserverDate: 5/15/88Reviewed By: *[Signature]*
Operations Superintendent - NuclearDate: 5/16/88Management
Review By:*[Signature]* 15/16/88 *[Signature]* 15/16/88
PM-N Date SVP Date VP Date

0-ADM-019

Management on Shift (MOS)
MOS DAILY REPORT

Page

1

To: Operations Superintendent - Nuclear

Date: 05/15-16/88

From: D. W. Haase
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3, 100% power operation
- Unit 4, Mode 5
- I&C work on the Unit 4 Containment Personnel Hatch interlock
- Followup on previous MOS recommendations
- Pressurizer Heater control problem on Unit 3

B. Immediate safety problems

None

C. Questionable work practices

None

D. Areas for improvement

A situation had developed in Unit 3 where the backup heaters were cycling on periodically to maintain pressure. A conclusion was drawn that the spray valves were leaking through thus causing more spray flow than the control group heaters could handle. However a check of the control group indicated that they were only putting out 62KW (capacity is 400KW). Heater No. 8 on the control group distribution panel was tripped and when reset, the output increased to 70KW, still inadequate to hold pressure without the backup groups cycling.

The pressurizer pressure control off normal procedure should include a step to check the control group output power if pressure has to be maintained utilizing a backup group. In addition, a baseline power for maintaining pressurizer pressure should be determined at the beginning of each operating cycle and daily checks made to detect and changes at steady state pressure.

E. Professionalism, Summary of Shift, Comments

None

Completed By: D. W. Haase
MOS Observer

Date: 05/15-16/88

Reviewed By: *D. W. Haase*
Operations Superintendent - NuclearDate: 5/16/88Management
Review By:

MB 15/16/88 *me* 15/16/88 1
PM-N Date SVP Date VP Date
05/15-16/88

3 45 A
4 10 -
4 11 2



Date Started 05/15/88

PSN MOS

Date Finished 05/16/88

Initiating PSN Schimkus PSN _____ Completed PSN Schimkus

Initiating APSN Dallau APSN _____ Completed APSN Dallau

A. Questionable Work Practices/Actions Taken/Recommendations

1. "B" Emergency Diesel Generator (EDG) Engine Cooling Water outlet temperature should normally be read from the engine panel. On 4/8/87 (1 year-1 month ago) a PWO was written for a small leak on the temperature sensing bulb. This was followed by a Temporary System Alteration (TSA) to disconnect the gauge from the sensing equipment. Over the past year we have had to use hand held pyrometers, and finally an in-line gauge was installed. Operators have been questioned by numerous persons of why the normal gauge is disconnected. Until the normal gauge is functional, we will continue to receive these questions from anyone unfamiliar with this set-up. The panel gauge wiring (sensing line) is coiled behind the engine panel and on first glance it looks like the "B" EDG has a problem with instrumentation.

Recommended actions: Either fix the normal gauge problem or remove it.

B. Areas for Improvement/Recommendations/Actions Taken

While reviewing 0-OSP-200.1 (Schedule of Plant Checks and Surveillances) it was noticed that the Unit B Emergency Diesel Starting Air Operability Test was not performed on 5/10/88, the same day as "A" Emergency Diesel was run. It was decided to wait on this test until the "B" EDG is scheduled for its routine surveillance test on 5/30/88. Note 24 on page 100 of 0-OSP-200.1 indicated that the Unit 4 (Mode 5) cannot heat up to above 200° F till this test is performed. If this test is indeed required prior to 200° F, this would have been missed. Log entrys and Unit 4 start-up surveillances indicate the full test was performed. Document Control indicates $\frac{1}{2}$ of the test performed. The conflicting information caused confusion in determining if test was completely performed, and being midnight shift, answers were hard to find.

Actions: Ran "B" EDG test and completed 0-OSP-22.5, Emergency Diesel Generators Air Valves Operability Test.

Recommendations:

1. Delete the 0-OSP-022.5 test as a required surveillance prior to any mode change.
2. Any surveillance scheduled procedure should have not only DATE REQUIRED but also a DROP DEAD date based on allowed grace period per current Technical Specifications and ADM-021, "OR" only have a drop dead date. This would eliminate confusion.
3. There needs to be more guidance in the form of special instruction that states a unit can escalate in modes provided that a surveillance has not exceeded its drop dead date or cannot change modes if the surveillance is in its grace period.

C. Good Practices/Professionalism Observed

Routine, normal shift.

Reviewed By AW Peace

Date 5/16/88

Actions Completed _____

Date _____

100-211-100
100-211-100



MANAGEMENT ON SHIFT (MOS)

WEEK STARTING: 05/16/88

WEEKLY SUMMARY REPORT

PAGE 1 OF 2

Five MOS Observers were on shift; M. H. Mosley, St. Lucie Nuclear Quality Assurance Department (05/16-22/88, days), L. A. Spalding, St. Lucie Operator Training Instructor (05/16-23/88, evenings), D. W. Haase, Turkey Point Nuclear Plant Safety Evaluation Group Chairman (05/16-20/88, evenings), H. L. Schneider, Turkey Point Planned Maintenance Group Special Projects Coordinator (05/20-23, evenings).

Unit 3 operated at 100% power throughout the reporting period. Unit 4 was in Cold Shutdown for maintenance through May 20, 1988 and then transitioned to Hot Shutdown in preparation to startup.

No immediate safety problems nor questionable work practices were reported by the MOS Observers.

During the reporting period, the MOS Observers noted seventeen recommendations and areas for improvement. These comments and suggestions included:

1. Three items dealing with the Condenser Air Ejector Radiation Monitor.
2. Two items concerning the availability of spare parts.
3. Twelve miscellaneous comments concerning topics such as PSN authority, Control Room manning, addition of Reactor Coolant System Activity to the parameters trended by the STA to monitor RCS leakage, Intake Cooling Water valve watches and suggested changes to the Emergency Response Team procedure.

During the reporting period the Plant Supervisor-Nuclear (PSN) MOS reporting program continued.

The PSNs identified one questionable work practice. This item dealt with high wind protection for a large crane outside the containment personnel hatch. (It was determined that a plant procedure exists for actions in response to high winds.)

ATTACHMENT: MOS DAILY REPORTS

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MANAGEMENT ON SHIFT (MOS)

WEEKLY SUMMARY REPORT

WEEK STARTING: 05/16/88

PAGE 2 OF 2

Additionally, the PSNs identified six areas for improvement. These items dealt with the level of personnel manning to repair Containment Purge Valve POV-4-2602, the inability to perform a monthly Process Radiation Monitor surveillance due to ongoing changes to the Control Room HVAC system, the Fault Sense Recorder operability, the timeliness of updating plant electrical wiring diagrams, sea weed fouling of Intake Cooling Water Strainers, and a need to inform contractor personnel of the potential for "pat down" type searches on entry to site.

ATTACHMENT: MOS DAILY REPORTS

To: Operations Superintendent - Nuclear

Date: 05/16/88

From: M. H. Mosley
(MOS Observer)Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- Unit 3, 100% power
- Unit 4, Mode 5
- Plan of the Day Meeting
- Morning Meeting
- APSN Turnover (split shift)
- Shift Relief, 1500
- Shift Meeting, 1535

B. Immediate safety problems

None observed

C. Questionable work practices

None observed

D. Areas for improvement

None

E. Professionalism, Summary of Shift, Comments

Day shift and peak shift conducted themselves and their operations in a brisk, professional manner.

Completed By: M. H. Mosley
MOS Observer

Date: 05/16/88

Reviewed By: [Signature]
Operations Superintendent - Nuclear

Date: 5/17/88

Management
Review By:

[Signature] 15/17/88 1
PM-N Date SVP Date VP Date
05/16/88

To: Operations Superintendent - Nuclear

Date: 05/16-17/88

From: Lawrence A. Spalding
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3 at 100% power
- Peak/mid shift turnover
- Pre-shift brief
- Normal operations and logs on Unit 3 and 4
- Steam Generator Pressure Comparator PC-484 (Steam Break Protection System) change out
- Toured Turbine area

B. Immediate safety problems

None

C. Questionable work practices

None

D. Areas for improvement

1. Operating Procedure 14004.1, page 2, step 4.10 (Steam Generator Protection Channels Periodic Test) says: "If the test is interrupted for any reason, the loop under test and all bistables shall be returned to normal, in that order." However during the test, comparator PC 484 failed. The Bistables 474A, 474B, 484, and 494 were left in the tripped condition and the I&C Supervisor was consulted per typed instructions on the front of the PWO. The I&C Supervisor says its not uncommon to put special instructions on the PWO. I suggest that the procedure should not contradict the instructions on the PWO. The PWO read to contact the I&C Supervisor if the test is interrupted for any reason. The failed channel PC 484 was put in the tripped condition within 1 hour which complied with Technical Specifications.
2. A replacement comparator was acquired from Unit 4 and the surveillance was completed. The system was returned to service. The I&C Specialist says this is the second event of this type where a comparator failed, and the replacement part had to be acquired from Unit 4. A similar event occurred requiring the change out of Steam Generator level comparator LC 497. The lack of PDRT qualified replacement parts increases the exposure time of the plant to safety system challenges while operating in a degraded configuration.

E. Professionalism, Summary of Shift, Comments

Shift turnover and pre-shift brief were well organized and all departments contributed.

I especially liked the plan of the shift turnover sheet which increases communications for all. (See attached sheet).

Completed By: Lawrence A. Spalding
MOS Observer

Date: 05/16-17/88

Reviewed By: *L. A. Spalding*
Operations Superintendent- Nuclear

Date: 5/17/88

Management
Review By:

OPB 5/17/88 1 VP 05/16-17/88
PM-N Date SVP Date VP Date



SHIFT ④ PLAN OF THE SHIFT

COMMON

- ① CABLE SEALED RM. 11/11/11
- ② INVERTER Room Alarm
- ③ HI-TOWER
- ④ Control Room Ventilation
- ⑤ A+C W.G.D.T.
- ⑥ ARMS 1, 19

EQUIPMENT - E.O.S

UNIT 3

- ① Containment Purge Valves
fuses pulled
- ② 3A CCW HX 713A
72 hr LCC (1920)
- ③ FT-6277A+C
- ④ 3A PAHM
- ⑤ B-Q57DS CETS (QUAD-T)
- ⑥ SV-6427A1B
- ⑦ MIMS
- ⑧ PRMS 15/20
- ⑨ SFP SPING CH. 749

UNIT 4

- ① N-81 / N-32
- ② 4A CCW PP
- ③ 4B CCW HX
- ④ CCW DRYVC
- ⑤ 4B HHSI PP
- ⑥ PL-4-484 (AP-8)
- ⑦ PRMS 15
- ⑧ TR-II AFW FCVS
- ⑨ MIMS
- ⑩ FCV-4-114A
- ⑪ POV-2602/2603

GENERAL UNIT STATUS

COMMON

- ① Control Room Vent.
MODE. almost
complete. start-up
has system in their
hands now

UNIT 3

- ① Mode 1 100% 721 MWE
- ② ITC completed
S/G level periodic
for channel II on peak
- will continue on day shift
- ③ Mech. working isol
713A 3A CCW HX. This
is a 72 hr LCC. Valve is
mech. blocked open - No
valve action needed (prob)
- ④ Control Group HTR
OUT PUT NOT NORMAL -
ITC TO INVESTIGATE
- ⑤ FT-6277A+C O/S.
- ⑥ "C" died on late peak

UNIT 4

- ① ITC is retubing
POV-2602 Exhaust
tubing to 1". Should
give more volume on
exhaust cycle
- ② Clearance written to
WORK SEP VALVES
821 and 798 A
- ③ Need more than 2
NO's to do TP-386
- ④ 4A POLISH YS
- ⑤ ITC WORKING N-32
- PROBABLY BAD PIC-44
- ⑥ 4B CCW HX - O/S
ARMERTAP TIE INS
PROG
- ⑦ 4A CCW PP. O/S - Mech
doing seal replacement
- ⑧ ITC needs to finish
SV-2915 (AFW TR-II)
Raychem.
- ⑨ Elect. doing PMS on
4B HHSI PP.

MAJOR SHIFT OBJECTIVES

UNIT 3

- ① No scheduled Red book
Surveillances
- ② MONITOR EQUIPMENT and
report any discrepancies

UNIT 4

- ① Support all critical Path
Job. clearances
- ② CRITICAL PATHS ARE
 - 1) 4A CCW PP.
 - 2) 4B CCW HX
 - 3) POV-2602/2603
- ③ By 0600 AM. TAKE OOS:
 - 1) 3A BATT. CHG.
 - 2) 3A ICW PP.



To: Operations Superintendent - Nuclear

Date: 05/16-17/88

From: D. W. Haase
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3, 100% power operation
- Unit 4, Mode 5
- I&C work on the Unit 4 Containment purge exhaust valve actuator
- Followup on a previous MOS recommendation
- Followup on pressurizer heater control problem
- Shift turnovers, PSN and APSN
- Beginning of shift meeting

B. Immediate safety problems

None

C. Questionable work practices

None

D. Areas for improvement

None

E. Professionalism, Summary of Shift, Comments

Observed very good interaction between the Maintenance Department and Operations at the beginning of shift meeting. This assures that all efforts are headed in the same direction.

Completed By: D. W. Haase
MOS Observer

Date: 05/16-17/88

Reviewed By: *[Signature]*
Operations Superintendent - NuclearDate: 5/17/88Management
Review By:

0/13 15/17/88 1 1
PM-N Date SVP Date VP 05/16-17/88

To: Operations Superintendent - Nuclear

Date: 05/17/88

From: M. H. Mosley
(MOS Observer)Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- Unit 3, 100% power
- Unit 4, Mode 5
- PWO meeting, 0710
- Plan of the Day, 0720
- Shift meeting, 0740
- Unit 3, Flux Map (Reactor Engineering)
- Unit 3, Safeguards Periodic Test
- Unit 4, Spent Fuel Pool level changes

B. Immediate safety problems

None

C. Questionable work practices

None

D. Areas for improvement

None

E. Professionalism, Summary of Shift, Comments

During flux map, safeguards testing, and conduct of Spent Fuel Pool level changes, procedures were in hand and in use.

Completed By: M. H. Mosley
MOS Observer

Date: 05/17/88

Reviewed By: [Signature]
Operations Superintendent - Nuclear

Date: 5/18/88

Management
Review By:

C/K 15/15/88 SVP 5/18/88 VP 1
PM-N Date Date VP Date
05/17/88

To: Operations Superintendent - Nuclear

Date: 05/17-18/88

From: Lawrence A. Spalding
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3 at 100% power
- Unit 4 in Mode 5
- Peak/mid shift turnover
- Pre-shift brief
- Normal operations and logs on Unit 3 and 4
- Toured Intake and Water Treatment areas
- Toured Cable Spreading Room

B. Immediate safety problems

None observed

C. Questionable work practices

None observed

D. Areas for improvement

1. The Condenser Air Ejector Radiation Monitor, R-3-15, on Unit 3 is out-of-service. The PWO on the monitor is dated 4/20/88. The operators on shift inform me that this monitor has been out-of-service except for 3 days since last December. All agree that the monitor has been out-of-service off and on for approximately 3 years. The monitor is not a Technical Specification required monitor. However, it is referenced and directed to be used as a diagnosis tool in 3-EOP-E-O (Reactor Trip or Safety Injection Procedure) and in 3-EOP-E-3 (Steam Generator Tube Rupture Procedure).



E. Professionalism, Summary of Shift, Comments

1. Shifts conducted themselves in a professional and competent manner at all times.
2. With multiple evolutions being performed on many systems during an outage, the running history and reasons for utilizing a particular solution set for the many problems which arise is blurred or lost. Suggest a tape recorder be used to keep a running history of major evolutions for apprising new shifts of the running track record on major evolutions. Communications prevents repetition of the learning curve.

Completed By: Lawrence A. Spalding

MOS Observer

Date: 05/17-18/88Reviewed By: A.W. Farce

Operations Superintendent - Nuclear

Date: 5/18/88Management
Review By:C/N 15/5/88 DO 15/18/88 1
PM-N Date SVP Date VP Date
05/17-18/88



To: Operations Superintendent - Nuclear

Date: 05/17-18/88

From: D. W. Haase
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3, 100% steady state power
- Unit 4, Mode 5
- Work in progress on Unit 4 Containment Purge Exhaust Valve actuator. Also reviewed associated work controls
- Preparation to initiate repairs to Unit 3 Pressurizer control group heater controller
- Shift turnover, PSN and APSN
- Beginning of shift meeting
- Work in progress on Unit 4 Component Cooling Water Heat Exchanger.

B. Immediate safety problems

None

C. Questionable work practices

None

D. Areas for improvement

None

E. Professionalism, Summary of Shift, Comments

None

Completed By: D. W. Haase
MOS Observer

Date: 05/17-18/88

Reviewed By: X. W. Para
Operations Superintendent - Nuclear

Date: 5/18/88

Management
Review By:

9/13 15/5/88 9/10 15/18/88 1
PM-N Date SVP Date VP 05/17-18/88

Date Started 05/16/88

PSN MOS

Date Finished 05/17/88

Initiating PSN Schimkus PSN _____ Completed PSN Schimkus

Initiating APSN Dallau APSN _____ Completed APSN Dallau

A. Questionable Work Practices/Actions Taken/Recommendations

PSN noticed that Unit 3 area outside Containment Personnel Hatch has a large crane with a boom which is approximately 150 feet tall. During this time of the year, high winds can be experienced with fast-moving weather fronts. This crane boom failure could possibly damage the Emergency Diesel Generator Storage Tank for fuel oil if it fell on it. Recommend work being performed be expedited to allow removal of the crane.

B. Areas for Improvement/Recommendations/Actions Taken

The Event Response Team (ERT) meeting I attended on Saturday morning concerning POV-4-2602 addressed two possible methods to reduce stroke time of the valve while waiting for springs etc, for a possible root cause repair. These methods were to remove the vent solenoid outlet exhaust tail pipes and increase the size of the actuator exhaust pipe supplying the exhaust solenoids. Today the latter of the suggestions was finally utilized. Stroke time decreased to 1.85 seconds. I am distressed that the suggestions were somewhat stifled, over 3 days due to what appears lack of personnel to accommodate this piping modification. Recommend that problem areas such as these are not back-burnered or slowed-down on during weekends and holidays.

C. Good Practices/Professionalism, Observed

The effort to reduce the purge valve stroke times on Unit 4 Containment took great leaps on the midnight shift. Good planning appears to have occurred. Shift 4 operator morale increased drastically as the valve closure times were reduced from greater than 5 seconds to 1.85 seconds.

Reviewed By D. W. Fairu Date 5/17/88 Actions Completed _____ Date _____

Date Started 05/17/88

PSN MOS

Date Finished 05/17/88

Initiating PSN Salkeld PSN _____ Completed PSN Salkeld

Initiating APSN Guyer APSN _____ Completed APSN Guyer

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

3/4-OSP-067.1, Process Radiation Monitoring Operability Test acceptance criteria requires Control Room isolation actuation feature for Containment Gaseous and Particulate Radiation Monitors R-11 and R-12 to be operable. This is a monthly periodic which was due on peak shift today. This acceptance criteria cannot be satisfied due to the modification being made to the HVAC system. If we cannot change this acceptance criteria prior to end of grace period, R-11 and R-12 will be declared out-of-service placing Unit 3 in a 48 hour Limiting Condition for Operation. PUP has been contacted and additional assistance may be required from Engineering and/or Technical Departments.

C. Good Practices/Professionalism Observed

NPO, Dave Drago, marked up a copy of O-ADM-205, Administrative Control of Valves, Locks and Switches, to streamline performance of this procedure. This change would eliminate redundant entries into areas to check different systems, improve the location descriptions and takes credit for items checked by other procedures. This change would significantly reduce the time required to complete this procedure and reduce the possibility of error. This type of operator initiative is what is needed to perfect procedures.

Reviewed By [Signature] Date 5/18/88 Actions Completed _____ Date _____

To: Operations Superintendent - Nuclear

Date: 05/18/88

From: M. H. Mosley
(MOS Observer)Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- Unit 3, 100% power
- Unit 4, Mode 5
- Plan of the Day, 0720
- Shift meeting, 0740 (days) and 1540 (peaks)
- Reactor Engineering Flux Map; Xenox Oscillation
- Nuclear Instrumentation System Calibration and Day Shift Check

B. Immediate safety problems

None observed

C. Questionable work practices

None observed

D. Areas for improvement

None observed

E. Professionalism, Summary of Shift, Comments

On observing a "Table Top" meeting between PSN, APSN and PUP representatives concerning a temporary change to a surveillance procedure I was favorably impressed with the following:

1. Professional courtesy of all parties involved.
2. Technical knowledge of operations crew.
3. Tenacity for criteria and documentation that would not impact intent of procedure on the part of PSN and APSN.

Completed By: M. H. Mosley
MOS Observer

Date: 05/18/88

Reviewed By: [Signature]
Operations Superintendent - Nuclear

Date: 5/19/88

Management
Review By:

6/13 15/19/88 VP 15/19/88 1
PM-N Date SVP Date VP Date
05/18/88

To: Operations Superintendent - Nuclear

Date: 05/18-19/88

From: Lawrence A. Spalding
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3 at 100% power
- Unit 4 in Mode 5
- Peak/mid shift turnover
- Pre-shift brief
- Normal operations and logs on Units 3 and 4
- Toured Reactor Auxiliary Building

B. Immediate safety problems

None

C. Questionable work practices

None observed

D. Areas for improvement

Observing the Event Response Team actions on the Containment Purge Valves, I recommend the following procedure changes to Administrative Procedure O-ADM-011, Event Response Team (ERT) Organization;

Step 3.9.1, page 6 should read:

The Department Shift Coordinator is responsible for coordinating all applicable departmental tasks that are a result of Short Notice Outage (SNOW) Team required corrective actions. The Department Shift Coordinator works on a shift basis to ensure departmental task completion. He shall work closely with the PSN to assure good, continuing, and timely updates as to the progress of the work and any changes and reasons for changes in the problem solution flow path. He shall inform the PSN of any major impediments to progress and the expected continuation times.

Step 4.6.1, page 8 should read:

The Department Shift Coordinator is an individual that possesses a high level of departmental experience and is intimately familiar with the SNOW schedule. The Department Shift Coordinator is appointed by the individual Department Supervisor. He shall work closely with the PSN to assure good communications and job progress.

Step 5.4, page 11 should read:

An analytical meeting shall be conducted when the affected unit has stabilized and the Event Response Team personnel have responded. The results and details of the analytical meeting shall be immediately communicated to the PSN.

E. Professionalism. Summary of Shift, Comments

1. Shifts conducted themselves in a professional and competent manner at all times.
2. Control Room personnel were concerned, alert, and aware at all times.
3. While on tour in all areas of the plant, I noticed most equipment, valves and lines are labeled with color-coded signs or markers which clearly identify components. The penetration room door had a plastic-covered general layout diagram with penetration identification and location on it. A person knew what the room looked like and the general layout prior to entering, reducing possibility of mistakes and time spent in the room. I think this labeling program is a credit to the Operations Department and is certainly worth the time and effort. I am told the program is administrated by equipment tagging procedure O-ADM-209.

Completed By:

Lawrence A. Spalding
MOS ObserverDate: 05/18-19/88

Reviewed By:

X. W. Finner
Operations Superintendent - Nuclear

Date:

5/19/88Management
Review By:G/B 15/19/88 VP 15/19/88 VP 15/19/88
PM-N Date SVP Date VP Date

To: Operations Superintendent - Nuclear

Date: 05/18-19/88

From: D. W. Haase
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3, 100% steady-state power
- Unit 4, Mode 5
- Shift turnover, PSN and APSN
- Beginning of shift meeting
- Work in progress on Unit 4 Containment Purge Exhaust Valve Actuator
- RCS leakrate procedure, Unit 3

B. Immediate safety problems

None

C. Questionable work practices

None

D. Areas for improvement

None

E. Professionalism, Summary of Shift, Comments

All shift personnel questioned had a good awareness of plant status, equipment out-of-service, and Limiting Condition for Operation (LCO) status.

Completed By: D. W. Haase
MOS Observer

Date: 05/18-19/88

Reviewed By: [Signature]
Operations Superintendent - Nuclear

Date: 5/19/88

Management
Review By:

CMB 5/19/88 [Signature] 5/19/88
PM-N Date SVR Date VP Date
05/18-19/88

Date Started 05/18/88

PSN MOS

Date Finished 05/18/88

Initiating PSN Jones PSN _____ Completed PSN Jones

Initiating APSN _____ APSN _____ Completed APSN _____

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

None

C. Good Practices/Professionalism Observed

None

[Handwritten signature]

[Handwritten date: 5/18/88]

Actions Completed

Date



0-ADM-019

Management on Shift (MOS)
MOS DAILY REPORT

Page

1

To: Operations Superintendent - Nuclear

Date: 05/19/88

From: M. H. Mosley
(MOS Observer)Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- Plan of the Day
- Shift meeting, 0740
- Shift meeting, 1540
- Operation review of Temporary Change (OTSC) to process Radiation Monitor Operability Test
- Unit 4, Nuclear Instrumentation Channel, N-31, Calibration
- Unit 3, Axial Flux Index
- Unit 4, Source Range Nuclear Instrumentation Analog Channel Operational Test.
- Operation/Training walkdown of new procedure prior to final approval (Control Room Inaccessability).

B. Immediate safety problems

None

C. Questionable work practices

None observed

D. Areas for improvement

None observed

E. Professionalism, Summary of Shift, Comments

1. Even though the Operations crew today was not a "Standard" crew, but parts of several crews filling in, they worked well together as professionals in their chosen occupation.
2. Also noted was the willing support and participation of other departments (Mechanical, Electrical, Instrument and Controls, Health Physics, Chemistry) toward achieving a common goal.
3. Procedures were in hand and in use during all evolutions.
4. Technical Specifications were repeatedly referred to on any item that appeared to be safety-related.

Completed By: M. H. Mosley
MOS Observer

Date: 05/19/88

Reviewed By: [Signature]
Operations Superintendent - Nuclear

Date: 5/20/88

Management Review By: [Signature] 15/20/88
PM-N Date SVP Date VP Date
05/19/88



To: Operations Superintendent - Nuclear

Date: 05/19-20/88

From: Lawrence A. Spalding
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3 at 100% power
- Unit 4 in Mode 5
- Peak/mid shift turnover
- Normal operations and logs on Units 3 and 4
- Toured Diesel Generator Building
- Toured Steam-Driven Auxiliary Feedwater Pump Area
- Toured Reactor Auxiliary Building

B. Immediate safety problems

None

C. Questionable work practices

None observed

D. Areas for improvement

None

E. Professionalism, Summary of Shift, Comments

1. RCO on Unit 4 was fully aware of status of his equipment and all Technical Specifications required to change modes.
2. Shifts conducted themselves in a professional and competent manner.
3. PSN fully aware of status of Containment Purge Valve repair at all times.
4. Pre-shift brief made all attendees aware of plant status and shift plan. The shift exhibited good communications.

Completed By: Lawrence A. Spalding
MOS Observer

Date: 05/19-20/88

Reviewed By: [Signature]
Operations Superintendent - Nuclear

Date: 5/20/88

Management Review By: [Signature] 5/20/88
PM-N Date SVP Date VP DateDate
05/10-20/88

To: Operations Superintendent - Nuclear

Date: 05/19-20/88

From: D. W. Haase
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3, Steady state power at 100%
- Unit 4, Mode 5
- Shift turnover, PSN and APSN
- Beginning of shift meeting
- RCS leakage investigation
- Observed stroking of Containment Purge Exhaust Valves following modification of air supply system.
- STA trending of various plant parameters
- Main Transformer Periodic Test, Unit 4
- Preparations for entering Mode 4 on Unit 4

B. Immediate safety problems

None

C. Questionable work practices

None

D. Areas for improvement

The Shift Technical Advisor (STA) trends plant parameters associated with RCS leakage, including RCS leakage, Containment particulate radiation level (R-11), Containment gas radiation level (R-12), Reactor Head particulate activity, Drain Tank level changes, and Containment Sump level changes. This is very useful in early detection of Reactor Coolant System leaks into Containment. However, RCS radioactivity levels are not trended with the other leak detection parameters. This is important in discerning if an increase in Containment activity levels is due to an increase in RCS leakage or just an increase in RCS activity. Recommend incorporating RCS radioactivity levels into the leak detection parameters.

E. Professionalism, Summary of Shift, Comments

The Control Room personnel were fully aware of all requirements for taking Unit 4 into Mode 4. All prerequisites that could be done were completed.

Completed By: D. W. Haase
MOS Observer

Date: 05/19-20/88

Reviewed By: [Signature]
Operations Superintendent - Nuclear

Date: 5/20/88

Management Review By: [Signature] 15/20/88 [Signature] 15/20/88 [Signature] 15/20/88
PM-N Date SVP Date VP Date
05/19-20/88

Date Started 05/19/88

PSN MOS

Date Finished 05/19/88

Initiating PSN Salkeld PSN _____ Completed PSN Salkeld

Initiating APSN Guyer APSN _____ Completed APSN Guyer

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

None

C. Good Practices/Professionalism Observed

Yes

Reviewed By [Signature] Date 5/26/88 Actions Completed _____ Date _____

To: Operations Superintendent - Nuclear

Date: 05/20/88

From: M. H. Mosley
(MOS Observer)Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- Unit 3, 100% power
- Unit 4, Mode 5
- Plan of the Day
- Shift meeting, 0740 (days)
- Interview QA Department (P. Ludes)
- Interview QC Department (G. Warriner)
- Interview Fire Protection (G. Traczyk, R. Kemmer)
- Interview Bechtel Job Supervisor (Emergency Diesel Generator Pads)
- Shift change (Peaks)

B. Immediate safety problems

None

C. Questionable work practices

None

D. Areas for improvement

None

E. Professionalism, Summary of Shift, Comments

Good cooperation on the part of Bechtel Supervision. A possible problem was brought up to the job supervisor. It was immediately looked into and resolved to the satisfaction of myself and the operation crew.

Completed By: M. H. Mosley
MOS Observer

Date: 05/20/88

Reviewed By: L. W. Pearce
Operations Superintendent - Nuclear

Date: 5/23/88

Management
Review By:C/15 15/23/88 1 1
PM-N Date SVP Date VP Date

05/20/88

To: Operations Superintendent - Nuclear

Date: 05/20-21/88

From: Lawrence A. Spalding
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3 at 100% power
- Unit 4 transferring from Mode 5 to Mode 4
- Peak/mid shift turnover
- Pre-shift brief
- Normal operations and logs on Units 3 and 4
- Toured Intake Area
- Toured Feedwater Platform Areas
- Toured Steam Trestle Areas
- Observed indication of Unit 4 Heat-Up and Post-Maintenance surveillance testing of Steam Driven Auxiliary Feedwater FCV-4-2831, Train 2 to Steam Generator 4A

B. Immediate safety problems

None

C. Questionable work practices

None observed

D. Areas for improvement

1. The Condenser Air Ejector Radiation Monitor, R-4-15, on Unit 4 is Out of Service. The PWO is dated 3/8/88. See previous entry on same problem, MOS Daily Report on 5/17-18/88.
2. R-3-15 on Unit 3 was declared in service on Friday, May 20, 1988 at 0855. Saturday, May 21 at 0300, the STA informed the PSN that the R-15 was not down in the well on the air ejector. The PSN inspected R-15 and found it pulled about 4 inches out of the well with its lower end in the well. The PSN took immediate action to correct the situation.

The R-3-15 on Unit 3 was declared out of service from the previous date and time when the repair job was started.



E. Professionalism. Summary of Shift, Comments

1. Pre-Shift brief was handled well. Shift plan was communicated to all departments.
2. Control Room Personnel were knowledgeable on all required Technical Specifications for changing modes.
3. Followed procedures and all required signoffs were completed prior to commencing mode change.
4. Shifts conducted themselves in a professional and competent manner at all times.

Completed By: Lawrence A. Spalding
MOS ObserverDate: 05/20-21/88Reviewed By: *L. A. Spalding*
Operations Superintendent - NuclearDate: 5/23/88Management
Review By:*C/B* 15/23/88 1 1
PM-N Date SVP Date VP Date
05/20-21/99

To: Operations Superintendent - Nuclear

Date: 05/20-21/88

From: H. L. Schneider
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3, 100% power
- Unit 4, Mode change 5/4
- Beginning of shift (Mids) meeting
- Toured:
 - Intake
 - Turbine Areas
 - Radiation Controlled Area

B. Immediate safety problems

None

C. Questionable work practices

None

D. Areas for improvement

None identified

E. Professionalism, Summary of Shift, Comments

Good interaction among all personnel during shift meeting

Completed By: H. L. Schneider
MOS Observer

Date: 05/20-21/88

Reviewed By: *L. W. P. Pierce*
Operations Superintendent - NuclearDate: 5/23/88Management
Review By:*OPB* 15/23/88 1 1
PM/N Date SVP Date VP Date

| | | |
|------------------------------|----------------|-------------------------------|
| Date Started <u>05/19/88</u> | PSN MOS | Date Finished <u>05/20/88</u> |
|------------------------------|----------------|-------------------------------|

Initiating PSN Anderson PSN _____ Completed PSN Anderson

Initiating APSN Reese APSN _____ Completed APSN Reese

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

I was called by the System on mid shift about an AT&T repairman who had called his supervisor who subsequently called System that they would not work on equipment at the plant because he was being subject to a hands on search and had refused. My understanding was that feelings were hurt and the AT&T personnel and the System person were very unhappy and thought that the repairman was being picked on. I think we need to address a letter to each outside contractor whose personnel have to enter the plant explaining that they may be subject to a hands-on search upon plant entry. It should also explain that it is not personally done extra to them and that if they do not want to agree with our NRC dictated rules, we can always find someone else to do the job.

C. Good Practices/Professionalism Observed

I had an Intake Cooling Water Strainer peg high on differential pressure tonight and it needed cleaning. With all the equipment being cleared up prior to bringing Unit 4 above 200° F, the strainer cleaning needed to be greatly expedited so as not to be a 200° F hold point. I only had to mention this to the Mechanical Maintenance Crew and they jumped on the job immediately and cleaned and leak-checked the strainer in record time. This kind of support is very welcome and appreciated.

Reviewed By W. T. Miller Date 5/20/88 Actions Completed _____ Date _____



Date Started 05/20/88

PSN MOS

Date Finished 05/20/88

Initiating PSN Schimkus PSN _____ Completed PSN Schimkus

Initiating APSN Dallau APSN _____ Completed APSN Dallau

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

The Sangamo Fault Sense Recorder is out of service and has been for over a month. It has run one day at a time from PWO to PWO since Christmas 1987. If an unexplainable line fault occurs which could cause relay action from our plant out into the system relays, PTN would have limited resources to explain how our plant was the cause or non-cause of the system disturbance.

Recommend a total upgrade of our fault sense recorder.

C. Good Practices/Professionalism Observed

Routine operations.

Reviewed By [Signature] Date 5/23/88 Actions Completed _____ Date _____



To: Operations Superintendent - Nuclear

Date: 05/21/88

From: M. H. Mosley
(MOS Observer)Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- Unit 3, 100% power
- Unit 4, Mode 4
- Plan of the Day Meeting
- Shift Meeting, 0740
- Shift Meeting, 1540
- Shift Turnover, 1445
- Interview J. Kapps, Maintenance Superintendent

B. Immediate safety problems

None

C. Questionable work practices

None

D. Areas for improvement

None

E. Professionalism, Summary of Shift, Comments

At the Plan Of The Day meeting, the PSN brought out a problem with Area Radiation Monitoring Sytem (ARMS) R-15 (Air Ejector Monitor). The problem was immediately "fielded" by maintenance and a viable fix instituted within hours. This problem was resolved "in-house" without outside interferences.

Completed By: M. H. Mosley
MOS Observer

Date: 05/21/88

Reviewed By: [Signature]
Operations Superintendent - Nuclear

Date: 5/23/88

Management
Review By:

[Signature] 15/23/88 1
PM-N Date SVP Date VP Date

05/21/88

To: Operations Superintendent - Nuclear

Date: 05/21-22/88

From: Lawrence A. Spalding
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3 at 100% power
- Unit 4 in Mode 4
- Peak/mid shift turnover
- Pre-shift brief
- Normal operations and logs on Unit 3 and 4
- Toured security fence perimeter
- Toured 4160 volt Switchgear Rooms and Alternate Shutdown Panel

B. Immediate safety problems

None

C. Questionable work practices

None observed

D. Areas for improvement

1. On MOS Report of 05/17-18/88, I stated that R3-15 (Condenser Air Ejector Monitor) was not a Technical Specification requirement. I have been informed that there is a Technical Specification on this piece of equipment; see Interim Technical Specifications, Radioactive Gaseous Effluent Monitoring Instrumentation, Tech Spec 3.3.3.7.
2. At 1935, while trying to perform a leak rate test on MOV-4-750 and MOV-4-751, it was discovered that MOV-4-750 would not open. Electrical was called out to troubleshoot the problem. At 2250 the unit was holding at less than 350°F until the leak test could be completed. On midshift turnover, the on-coming operator said that MOV-4-750 would open if you held the Overpressure Mitigating System (OMS) Reset Button down greater than 5 seconds. It worked.
The crew in general was upset because:
 - There had been confusion around the control logic of this valve for some time; (apparently since a PCM was accomplished 2 years ago).
 - Using their Logic Diagram Sheet 27(5610-T-LI), Residual Heat Removal Isolation Valves 750 or 751, they could not determine if the reset feature was actually the problem and the meaning of the blue and yellow light indications.

D. Areas for Improvement (Cont'd).

The Electrical Supervisor said that they needed some good prints that explain how this valve works. I questioned the watch engineer as to what documents they had to make these determinations with and he responded, "Prints, EWDs, and System Descriptions." They said that they could not get this information from the system descriptions. They said that there was not enough information on the logic print to determine how the valves actually worked and the meaning of the lights. They did not consult the Electrical Wiring Diagrams (EWD) because the Electrical Supervisor said they were not updated for the PCM.

It was suggested by the Electrical Supervisor that the light indications be labeled to identify the logic.

It was suggested that procedure 4-OSP-041.17, RCS Pressure Boundary Valves MOV-4-750 and/or MOV-4-751 Leak Test, should be modified to prevent a reoccurrence.

I suggest that there needs to be an information system available to the operators that allows them to access needed information within a reasonable period of time and that this information system reflects this information in a fashion that allows them to use the information. Information is an operator's tool to get the job done.

E. Professionalism, Summary of Shift, Comments

- Pre-shift brief was handled well. Shift plan was communicated to all attendees.
- Control Room personnel were knowledgeable on all required Technical Specifications for changing modes
- Followed procedures and had all required signoffs completed prior to commencing mode change.
- Shifts conducted themselves in a professional and competent manner at all times

Completed By: Lawrence A. Spalding
MOS Observer

Date: 05/21-22/88

Reviewed By: *L. W. Prince*
Operations Superintendent - Nuclear

Date: 5/23/88

Management
Review By:

C/B 15/23/88 1 1
PM-N Date SVP Date VP 05/21-22/88 Date



To: Operations Superintendent - Nuclear

Date: 05/21-22/88

From: H. L. Schneider
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3, 100% power operation
- Beginning of Shift (Mids) Meeting
- Toured Plant Areas:
 - Intake
 - Radiation Controlled Area
 - Turbine Area
- Investigation of MOV-4-750, potential problem on open signal
- Unit 4, Mode 4

B. Immediate safety problems

None

C. Questionable work practices

None

D. Areas for improvement

No recommendation

E. Professionalism, Summary of Shift, Comments

I&C and Electrical not in attendance at mid shift meeting. Interested in what jobs I&C was working.
Unit 3 R-15 was being worked on peak shift but not on mid shift.

Completed By: H. L. Schneider
MOS Observer

Date: 05/21-22/88

Reviewed By: *L. W. P. [Signature]*
Operations Superintendent - NuclearDate: 5/23/88Management
Review By:

MB 15/23/88 1 1
PM/N Date SVP Date VP Date
05/21 22/88



Date Started 05/21/88

PSN MOS

Date Finished 05/21/88

Initiating PSN Wogan PSN _____ Completed PSN Wogan

Initiating APSN Guyer APSN _____ Completed APSN Guyer

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

None

C. Good Practices/Professionalism Observed

Yes

Reviewed By L. P. R. R. Date 5/23/88 Actions Completed _____ Date _____

Date Started 05/21/88

PSN MOS

Date Finished 05/21/88

Initiating PSN Schimkus PSN _____ Completed PSN Schimkus

Initiating APSN Dallau APSN _____ Completed APSN Dallau

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

None

C. Good Practices/Professionalism Observed

Routine operations - No unprofessional behavior observed.

Reviewed By _____ Date _____ Actions Completed _____ Date _____



To: Operations Superintendent - Nuclear

Date: 05/22/88

From: M. H. Mosley
(MOS Observer)Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- ° Plan of the day
- ° Shift meeting (days)
- ° Unit 3, 100% power
- ° Unit 4, Mode 4
- ° Plant tours
- ° Interviews with Security
- ° Interviews with plant operators

B. Immediate safety problems

None

C. Questionable work practices

None

D. Areas for improvement

See Section E.



E. Professionalism, Summary of Shift, Comments

For the past week I have observed general overall plant operation from the Administrative Building, through the Control Room, to the equipment and personnel of the plant. I have interviewed personnel from upper supervision down to the helper in Operations, Mechanical Maintenance, Electrical Department, I&C, Fire Protection, Quality Control, Quality Assurance, Procedure Upgrade Group, Technical Staff, Engineering, Bechtel, and Security.

As an outside observer what I see is a plant in transition from "business as usual" to a plant that is well run by concerned, aware, professionals with a common goal: the safe production of power for the benefit of our customers and our company.

Also as that outside observer, I offer the following questions, observations, and suggestions:

A. On the negative side:

1. Who is the authority figure who "makes it happen" on day shift?
On backshift or weekends?
 - a. To whom does he delegate?
 - b. Can he expect readily available, willing assistance in "doing it right the first time"?
 - c. Since the final responsibilities tend to lie with Operations in any evolution, I would suggest the PSN with the support of upper supervision and management and the cooperation of other departments.
 - (1) Make use of the overall plant knowledge and experience required by this position.
 - (2) When necessary, he should be able to delegate responsibility to the APSN and NWE.
 - (3) I have noticed that MOS items receive immediate attention. With the above program I believe MOS could be phased out.
2. Encourage Fire Protection to actively track and physically ensure that surveillances and preventive maintenance (PM) items are done correctly and on time for any and all fire-related equipment and systems.
3. Are there enough Quality Control inspectors and do they have the backing and encouragement to go into the field and ensure quality control is maintained? My impression is no.
4. Continue to discourage the use of "grace time" on surveillances and PMs. This time should be used for equipment repair and those plant configurations that make a deferral necessary.



5. Consider another RO and another APSN in the Control Room. The RO to help distribute the work load, especially in paper work and the APSN to help free up the PSN and NWE. They would then be more able to go where the problems arise to assist, coordinate, get proper support and generally keep abreast of what, where, when, and how it is being resolved without having to wait for a report from another supervisor who may himself be busy.
6. Continually encourage cooperation within and between departments toward a common goal: the safe production of power.
7. Discontinue the Control Room distribution of food supplies to other departments. It is much too small, crowded and busy to maintain other than its own immediate and emergency supplies.
8. On my tours I observed two operators continually tied up as valve watches on V-3-2201 and V-4-2201, Intake Cooling Water to Turbine Cooling Water Heat Exchanger. Is anything underway to resolve this and free those operators for their normal duties?
9. Is there a program underway to resolve the problem of availability of qualified parts and spares?

B. On the positive side:

1. Being operations oriented I perhaps scrutinized the Operations Department more closely than others. What I found was that as crews and individuals, they are alert, well trained, concerned and professional.
2. Interfacing with Security in the course of my tours or entering and exiting the site, showed them to be alert and aware. Even under some provocation on my part, they conducted themselves in a courteous, yet professional manner.
3. All departments immediately responded to items of concern, to resolve them and followed up with what, where, when, why and how.

Completed By: M. H. Mosley
MOS ObserverDate: 05/22/88Reviewed By: *L. W. Peace*
Operations Superintendent - NuclearDate: 5/23/88Management
Review By:*AB* 15/43/86 1
PM/N Date SVP Date VP Date

FINAL PAGE

05/22/88

0-ADM-019

Management on Shift (MOS)
MOS DAILY REPORT

Page

1

To: Operations Superintendent - Nuclear

Date: 05/22-05/23/88

From: Lawrence A. Spalding
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3 at 100% power
- Unit 4 in Mode 4
- Peak/mid shift turnover
- Pre-shift brief
- Normal operations and logs on Unit 3 and 4
- Toured RAB and Electrical Penetration Room
- Toured Intake area
- Observed emergency medical team response

B. Immediate safety problem

None

C. Questionable work practices

None observed

D. Area(s) for improvement

None

E. Professionalism, Summary of Shift, Comments

- Control Room received a call that a man was down in the RCA dressout area. The Watch Engineer was immediately dispatched to the scene with radio in hand. The EMT and ambulance were immediately dispatched to the scene. Security was ready and waiting at the area. I estimate that it was not more than 3 or 4 minutes from notification until all parties were on the scene. The response was fast, professional, and Emergency Procedure 20101, Medical Emergency, was complied with.

I thought this emergency was handled extremely well.

Shift conducted themselves in a professional and competent manner at all times.

Completed By: Lawrence A. Spalding
MOS Observer

Date: 05/23/88

Reviewed By: L. W. Ponce
Operations Superintendent - Nuclear

Date: 5/23/88

Management
Review By:

PM/N 5/23/88 SVP VP

Date Date Date

0-ADM-019

Management on Shift (MOS)
MOS DAILY REPORT

Page

1

To: Operations Superintendent - Nuclear

Date: 05/22-05/23/88

From: H.L. Schneider
(MOS Observer)

Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Unit 3 100% power operation
- Unit 4 Mode 4
- Beginning of shift (mids) meeting
- Testing of MOV's 4-750 and 4-751

B. Immediate safety problems

None

C. Questionable work practices

None observed

D. Area(s) for improvement

No suggestions

E. Professionalism, Summary of Shift, Comments

Shift director needed to coordinate critical path activities.

Completed By: H.L. Schneider
MOS Observer

Date: 05/23/88

Reviewed By: [Signature]
Operations Superintendent - Nuclear

Date: 5/23/88

Management
Review By:

[Signature] 15/23/88
PM/N Date SVP Date VP Date

Date Started 05/22/88

PSN MOS

Date Finished 05/22/88

Initiating PSN Schimkus PSN _____ Completed PSN Schimkus

Initiating APSN Dallau APSN _____ Completed APSN Dallau

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

None

C. Good Practices/Professionalism Obsrved

Routine operations

Reviewed By L.A. Pearce Date 5/23/88 Actions Completed _____ Date _____

Date Started 05/23/88

PSN MOS

Date Finished 05/23/88

Initiating PSN T.E. Anderson PSN _____ Completed PSN T.E. Anderson

Initiating APSN T. Reese APSN _____ Completed APSN T. Reese

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

We've been having occasions of extreme amount of sea weed fouling our Intake Cooling Water strainers. When this happens all the strainer differential pressures peg out and back washing does no good. The Maintenance Department cleans them as fast as they can and can't keep up with them. Recommend: Somehow this debris needs to be caught and removed prior to the intake before it has chance to foul the strainers.

C. Good Practices/Professionalism Observed

None

Reviewed By R. D. Prince

Date 5/23/88 Actions Completed _____ Date _____

Date Started 05/21/88

PSN MOS

Date Finished 05/22/88

Initiating PSN Anderson PSN _____ Completed PSN Anderson

Initiating APSN Reese APSN _____ Completed APSN Reese

A. Questionable Work Practices/Actions Taken/Recommendations

None

B. Areas for Improvement/Recommendations/Actions Taken

While trying to trouble shoot the interlocks and defeats on MOV-750, we have an old Electrical Wiring Diagram (EWD) that shows none of the PCM modifications which were implemented back in November 1986. This seems to be much too long a time to update controlled copies of EWDs or any other document we use for everyday troubleshooting of equipment.

C. Good Practices/Professionalism Observed

I would like to have the stamina and hard work of Bob Maxwell and A. Lightfoot on troubleshooting MOV-750 tonight recognized.

Reviewed By L. P. [Signature]

Date 5/23/88 Actions Completed _____ Date _____