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ACCESSION NBR: 8802030449 DOC. DATE: 88/01/27 NOTARIZED: NO DOCKET #
 FACIL: 50-250 Turkey Point Plant, Unit 3, Florida Power and Light C 05000250
 50-251 Turkey Point Plant, Unit 4, Florida Power and Light C 05000251
 AUTH. NAME AUTHOR AFFILIATION
 WOODY, C. O. Florida Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION
 GRACE, J. N. Region 2, Ofc of the Director

SUBJECT: Forwards summary of mgt-on-shift weekly repts per NRC 871019 order.

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FPL

JANUARY 27 1988

L-88-39

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,



C. O. Woody
Executive Vice President

COW/SDF/pw
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)

WEEK STARTING: January 18, 1988

WEEKLY SUMMARY REPORT

PAGE 1 OF 3

The following four MOS observers were utilized on shift: Dennis Borgmann, St. Lucie Non-Licensed Operator Training Supervisor (01/18-24/88, Day); Robert Dawson, St. Lucie Electrical Maintenance Supervisor (01/18-25/88, Night); Jesus Arias, Jr., Turkey Point Regulation and Compliance Supervisor (01/18-21/88, Night); and Wallace R. Williams, Jr., Turkey Point Assistant Superintendent, Planned Maintenance (01/21-25/88, Night). While on shift these MOS observers reported on potential safety problems, questionable work practices, operating strengths, areas for improvement and general recommendations. During the reporting period Unit 4 was operated at 100% power (Mode 1). Unit 3 was in cold shutdown (Mode 5) for repair of a small leak on the D-8 Control Rod Drive Mechanism Canopy Seal weld.

The following questionable work practices were observed:

- o Health Physics coverage was inadequate near a holding pit.
- o Keying of two-way radios in unauthorized areas may cause Control Room alarms. Security guards have been briefed concerning this problem.
- o Delays in the repair of the Fire Protection pump leak have extended the periodic surveillance for flushing the system into the grace period.
- o Hydrometers are not being returned to storage after use.
- o A Plant Work Order (PWO) was completed that also encompassed most of the requirements of a Non-Conformance Report (NCR). A Post Maintenance Test was completed for the PWO but did not meet all the requirements of the NCR. The supervisor has been counselled on the importance of better job planning.

The following procedural improvements were recommended by MOS observers:

- o Ensure Plant Work Order instructions are understandable and usable by Maintenance Department personnel.
- o Appendix B of AP-0190.28, Post Maintenance Testing, is not being consistently used prior to returning equipment to operable status.
- o Evaluate/revise the Fire Brigade Program procedure concerning the assignment of ANPOs to fire team especially since a knowledge of safety equipment is required.
- o Revise Health Physics procedures concerning RCA fence removal.

ATTACHMENT: MOS DAILY REPORTS

MANAGEMENT ON SHIFT (MOS)

WEEK STARTING: January 18, 1988

WEEKLY SUMMARY REPORT

PAGE 2 OF 3

- o Refrain from removing Plant Work Order green tags until the Post Maintenance Test is completed.
- o Revise Auxiliary Feed Pump surveillance to allow alignment of steam trap to the operating unit condenser.
- o Evaluate the need for blowdown flow specific data for each steam generator and restore it to the RCO's logs if necessary.
- o Include recirculation of the "C" Boric Acid Storage Tank with the "3C" transfer pump in the CVCS Boron Concentration Control procedure.
- o Solicit user input when revising operator logs.

The following equipment improvements were recommended by MOS observers:

- o Repair Fire Protection System leaks so that scheduled surveillances can be performed.
- o Improve valve lock seals to prevent valve manipulation on the Auxiliary Feedwater Nitrogen Backup System.
- o Evaluate the need to relocate PT-4-464 or provide protection from bumping into it.
- o Identify status of Plant Change/Modification for PRMS recorder and expedite implementation and repair of out-of-service monitors.
- o Evaluate the two "A" AFW pump electronic overspeed trips that occurred during testing for possible root cause(s).
- o Replace the damaged sink outside the "3A" and "4B" battery rooms and clean corroded connections on "3C/4C" batteries.
- o Replace lighting and unplug drains in the Fire Pump/Jockey Pump area.
- o Repair main generator hydrogen regulator and hydrogen high pressure alarm.
- o Evaluate Control Room nuisance alarms for correction.

The following additional miscellaneous improvements were recommended by MOS observers:

- o Improve the surveillance program by making the status available to operators in the Control Room of overdue surveillances which require Technical Specification action(s), by listing out-of-service Technical Specification equipment & surveillances that are due during the next week in the plan of the day and involving both Maintenance and Operations in the scheduling of surveillances.

ATTACHMENT: MOS DAILY REPORTS

MANAGEMENT ON SHIFT (MOS)

WEEKLY SUMMARY REPORT

WEEK STARTING: January 18, 1988

PAGE 3 OF 3

- o Improve the conduct of Operations in the Control Room such that all departments are represented at start-of-shift briefings, Control Room operators are informed of all plant status changes, better coordination exists between departments on work scheduled for each shift, Control Room discussions conducted clear of all control boards, personnel traffic is minimized in and through Control Room, and all Control Room evolutions are logged while maintaining continuous control.
- o Evaluate radiation and chemistry sample trends for indication of possible containment leak.
- o Ensure access to all plant locations for bomb searches.
- o Improve personnel processing through contractor entry gate.
- o Qualify all Nuclear Watch Engineers as Fire Team Leaders.
- o Provide retraining on how to lay out a fire hose.
- o Clean condensate polishing area and better coordinate storage.

MOS—observers documented many instances of demonstrated professionalism by Control Room operators.

ATTACHMENT: MOS DAILY REPORTS

To: Operations Superintendent - Nuclear

Date: 01/18/88From: Dennis Borgmann
(MOS Observer)Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- 0700 morning meeting
- 0745 on shift meeting (briefing)
- Plant operation in the Control Room
- Toured intake area with PSN
- 1300 outage meeting
- 1545 on shift meeting (briefing)

B. Immediate safety problems

None

C. Questionable work practices

PSN discovered a questionable work practice concerning Health Physics coverage of work being performed in an area with radioactive materials, outside the RCA. Persons were entering and exiting area without frisking (no Health Physics coverage near a holding pit). After phone and direct conversations, Health Physics changed boundaries and frisked workers. PSN followed up and ensured this was corrected to his satisfaction.

D. Area(s) for improvement

Work needs to progress on the leaks on the fire protection system.

1. Fire pump recirculation (3 to 4 gpm with pump off)
2. Tank outlet valve (1 to 2 gpm)
3. Hi tower Unit 1 and 2 cross tie (0.5 gpm)

E. Professionalism, Summary of Shift, Comments

1. Communications concerning shift activities were formal and accurate with all shift supervision keeping the others informed.
2. APSN kept the board operators informed and asked for input as the shift activities progressed.
3. Very smooth, well maintained shift. Training was conducted (2 trainees). The plant was well monitored.
4. Is there a Shift Director for dayshift? The PSN was unsure and he did not visit the Control Room during the shift.

F. Recommendations

None

Completed By: Dennis Borgmann Date: 01/18/88
MOS ObserverReviewed By: R. W. Pierce Date: 1/19/88
Operations Superintendent- NuclearManagement Review By: PSN 1/19/88 VP 1/23/88
PM-N Date SVP Date VP Date

MANAGEMENT INITIAL RESPONSE

To: Operations Superintendent - Nuclear

Date: 01/18-19/88

From: Jesus Arias, Jr.
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Shift briefing
- Shift turnovers
- Outage meeting
- Plant tours

B. Immediate safety problems

None

C. Questionable work-practices

- During the peakshift, noted a security guard using his radio in the vicinity of the steam line differential pressure transmitters on Unit 4. When questioned about his awareness of the posted signs, he expressed no knowledge of the restrictions. J.P. Mendieta was informed of this and since it is a repeat occurrence, he was asked to take action.

D. Area(s) for improvement

- AFW Nitrogen backup valve lock seals were found to be inadequate on two header valves (wire was loose enough that it allowed valve position to change without any restriction). Shift supervision took prompt action to correct the condition. Valves were found in the correct positions.
- Need consistency in following AP-0190.28 Post Maintenance Testing requirements. The Inservice Testing Coordinator/STA, in some cases, is not being provided with the Appendix B sheet prior to the start of work. This sheet is used to detail Preventative Maintenance Inservice Testing requirements prior to returning equipment to operable status.

E. Professionalism, Summary of Shift, Comments

1. Shift activities are being performed in a professional manner. The subject has been discussed in shift briefings.
2. There is good control of maintenance activities by shift supervision.
3. Maintenance groups displayed prompt response to the need of operations. (Ex: Oil leak on Unit 4 Turbine.)
4. Noticed a slight increase in containment activity on Unit 4. Both shifts (peaks and mids) showed concern and during the peakshift, the PSN requested the STA to trend activity and keep a close look into it.
5. Showed the Unit 3 Control Rod Drive Mechanism film during the peak shift turnover which generated a lot of interest.
6. Good usage of procedures by on-shift personnel.

F. Recommendations

1. Reaffirm the need to follow AP-0190.28, Post Maintenance Testing, and notify the Inservice Testing Coordinator/STA as required.
2. Develop an easier method to maintain the Nitrogen back-up (Auxiliary Feedwater Flow Control Valves) valves locked. Evaluate the need to lock the bottle isolation valves and the pressure regulators 1704 and 1709 on both units.
3. Security supervision ^{-VP} to ensure that guards are fully aware of restrictions to use radios in the vicinity of pressure transmitters in the turbine decks. Yellow signs are already posted.

Completed By: Jesus Arias, Jr.
MOS ObserverDate: 01/19/88Reviewed By: R. W. Pearce
Operations Superintendent- NuclearDate: 1/19/88Management
Review By:WAS 1/19/88 VP 1/23/88
PM-N Date SVP Date VP Date

To: Operations Superintendent - Nuclear

Date: 01/18-19/88

From: Bob Dawson
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- 2230 End of shift briefing
- 2300 PSN shift turnover
- 2330 Mid shift briefing
- Weekly Instrument Air Dewpoint
- PWO 6086 Auxiliary Feedwater positioner
- RCS Leak Rate Test
- Safety Battery Surveillance
- Plant tour

B. Immediate safety problems

None

C. Questionable work practices

None

D. Area(s) for improvement

None

E. Professionalism, Summary of Shift, Comments

- Shift turnovers and briefings covered the important topics and provided for good shift communications.
- PSN acted swiftly to break up "non technical" discussions that were occurring in the center of the Control Room. The PSN reinforced his concerns at the end of shift meeting.
- PWO 6086 was aborted and not worked. The I&C journeyman expressed his concern over the instructions in the PWO. These instructions referenced a hand drawn sketch, unsigned with no source traceable, that seemingly conflicted with the Vendor's Technical Manual drawings. After further review, the APSN did not allow the job to be worked until the correct configuration could be identified. Good attention to detail on the part of both individuals.
- Unit 4 #9 bearing vibration increased to about 7 mills. PSN spent time in the field with non-licensed operators to reduce it by changing oil temperatures.
- Unit 4 Containment Radiation Monitoring appears to be somewhat higher than previous two days. PSN assigned STA to prepare a data package for day shift evaluation. Good use of shift personnel.

F.

Recommendations

1. Do some research on PWO 6086. Define the correct configuration. Research Technical Manual to see if there are vendor recommendations to be followed. If so, reference them specifically in the work description.
2. Evaluate R-11 trends and chemistry samples to determine if activity has, in fact, increased in the containment (Unit 4).
3. Keep an eye on #9 bearing vibration (on Unit 4).

Completed By:

Bob Dawson

MOS Observer

Date: 01/19/88

Reviewed By:

Operations Superintendent - Nuclear

Date: 1/19/88

Management
Review By:

PM-N

Date

SVP

Date

VP

Date

MANAGEMENT INITIAL RESPONSE

To: Operations Superintendent - Nuclear

Date: 01/19/88

From: Dennis Borgmann
(MOS Observer)Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- 0700 Morning meeting
- 0745 Pre-shift brief
- TAVG and Delta Temperature Protection Channels Periodic Test
- Toured Auxiliary Feedwater System, Intake, Unit 4 Turbine areas.
- Toured Auxiliary Building
- 1300 Outage meeting
- APSN and PSN turnover

B. Immediate safety problems

None

C. Questionable work practices

None

D. Area(s) for improvement

Follow-up from 01/18/88 leaks on Fire Protection System is delaying annual surveillances.

E. Professionalism, Summary of Shift, Comments

1. During preshift brief operators were told to monitor #9 bearing vibration. Vibration at 0700 was 6 mils which was down from 7 mils. Also operators were instructed to log baseline temperatures of lube oil and exciter temperatures. A day long trouble shooting effort was showing results.
2. Evaluation of R-11 trend continued. Chemistry sampled containment at 0400 and again at 1000. Samples indicate a possible small leak. PSN recommended containment entry be planned at 1300 meeting. Entry is being planned.
3. Turnovers are very complete including tours and log reviews.
4. Shift director briefed both day shift and peak shift on controlling path activities. He also participated in the peak shift pre-briefing.

F. Recommendations

None

Completed By: Dennis Borgmann Date: 01/19/88

MOS Observer

Reviewed By: J.W. Pearce Date: 1/20/88

Operations Superintendent- Nuclear

Management
Review By:FWS 1/20/88 VP 1/23/88 VP 1/20/88
PM-N Date SVP Date VP Date

MANAGEMENT INITIAL RESPONSE

To: Operations Superintendent - Nuclear

Date: 01/19-20/88

From: Bob Dawson
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Shift turnover
- Shift briefings
- Plant tour
- Process Rad Monitor Surveillance
- RCS Leak Rate Surveillance

B. Immediate safety problems

None

C. Questionable work practices

None

D. Area(s) for improvement

None

E. Professionalism, Summary of Shift, Comments

- Observed Process Radiation Monitor Surveillance (OSP-67.1). The RCO identified a possible difference between the revision number of the procedure and the revision number in the index. The procedure revision number was ahead of the index. He followed through to get the question resolved prior to starting. Both shifts involved with this surveillance used procedures correctly.
- Operations personnel employed a "valve watch" during Component Cooling Water Heat Exchanger maintenance. When questioned, the shift personnel were knowledgeable in the use and basis of this practice.

F. Recommendations

None

Completed By: Bob Dawson
MOS Observer

Date: 01/20/88

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

Date: 1/20/88

Management
Review By:

7/2/88 1/20/88 8/20 1/23/88 7/2/88 1/20/88
PM-N Date SVP Date VP Date

To: Operations Superintendent - Nuclear

Date: 01/19-20/88

From: Jesus Arias, Jr.
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Shift turnovers
- Shift briefings
- Outage planning meeting
- Plant tours

B. Immediate safety problems

None

C. Questionable work practices

None

D. Area(s) for improvement

1. PT-4-464 located on the turbine deck at the exit from the Unit 4 Auxiliary Feedwater steam supply manual operated valve room has a PWO tag (No. 317001) dated 10/23/87 requesting some type of bump protection to be installed. This transmitter was found today slightly tilted. Even though there was no adverse effect on the Unit 4, it should be either relocated higher or provide some protection for inadvertent bumping.
2. The assignment of ANPOs to the fire team was questioned by the MOS representative from PSL. There is conflict with O-ADM-016.2, Fire Brigade Program, which requires ("shall") two members of the fire team to be trained or have knowledge of safety related equipment and its effects on safe shut down capabilities. The Fire Protection Supervisor was contacted at my request, and he could not answer.

he

E. Professionalism, Summary of Shift, Comments

- Professional attitudes are being displayed in the conduct of operations.
- Shift briefings, board walkdowns and turnovers are very detailed.
- PSN tours of the plant are extensive and thorough.
- One Mechanical Maintenance foreman, during the Midshift briefing, expressed the fact that his manpower available was not sufficient to work all the items that were turned over from peaks.
- Shift supervision (APSN) expressed a concern regarding the PRMS R-11 and 12 recorder not being available to trend the Unit 4 containment activity. I&C Shift Supervisor mentioned that a Plant Change/Modification was required to replace the existing one but the status was not known.
- Attendance and participation of maintenance groups is adequate.
- Deficiencies found during the plant tours already had PWO tags on them.
- Provided meeting minutes of Unit 3 canopy seal leak to shift supervision.
- Provided a copy of NRR, Steve Varga letter to C.O. Woody regarding the status of the revised Technical Specifications to shift supervision.

F. Recommendations

1. Technical Department should find out status of Plant Change/Modification for PRMS recorder on Unit 4 and, if possible, expedite its implementation.
2. Fire Protection Supervisor should research the discrepancy with O-ADM-016.2, Fire Brigade Program, and provide a response to Operations Supervisor, and if required, generate procedure changes.
3. Evaluate the relocation of PT-4-464 or provide bump protection (PWO-317001).

Completed By: Jesus Arias, Jr.
MOS ObserverDate: 01/20/88Reviewed By: L.W. Preece
Operations Superintendent- NuclearDate: 1/20/88Management
Review By:

PM-N 1/20/88 SVP 1/23/88 VP 1/20/88
Date Date Date Date

To: Operations Superintendent - Nuclear

Date: 01/20/88

From: Dennis H. Borgmann
(MOS Observer)Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- o 0700 Morning meeting
- o 0745 Preshift bridging
- o Removal of "A" Auxillary Feedwater Pump from service.
- o Lost Heater Drain Pump.
- o 1300 Afternoon meeting
- o Peak shift turnover
- o 1545 Preshift briefing

B. Immediate safety problems.

None

C. Questionable work practices

Delays in the repair of a leak on the fire pump have caused the periodic surveillance for flushing the Fire Protection System to become deferred to the grace period. Leak repairs on the fire pump took less than a shift to complete. This Plant Work Order was thirteen days old.

D. Area(s) for improvement

1. (See C.) Work on equipment should be planned out as not to cause surveillances to become past due.
2. It appears that the Control Room must also rely on other groups to tell them when they enter Technical Specification action statements on past due surveillances

E. Professionalism, Summary of Shift, Comments

- o Loss of heater drain was handled very well. Procedures were used, and the plant was stabilized quickly. The NWE and Nuclear Plant Operator determined the cause quickly. The whole process from failure to the repair and restart of the pump took only a couple of hours. All departments worked as a team to correct the problem.

F. Recommendation

None

Completed By:

Dennis H. Borgmann

Date: 01/20/88

- MOS Observer.

Reviewed By:

J. W. Pearce
Operations Superintendent - Nuclear

Date: 1/27/88

Management
Review By:FHS
PM-N1/21/88
Date

SVP

1/21/88
Date

VP

1/21/88
Date

MANAGEMENT INITIAL RESPONSE

To: Operations Superintendent - Nuclear

Date: 01/20-21/88

From: Jesus Arias, Jr.
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Outage meeting
- Shift briefing
- Shift turnovers
- "A" Auxiliary Feed Water Pump testing.

B. Immediate safety problems

None

C. Questionable work practices

- Posting of RCA boundaries - Two areas of the RCA boundary (back of Auxiliary Building and side of Health Physics Building) have ropes and signs of RCA boundary due to permanent fence being removed temporarily. HPA-2 depicts requirements for entering the RCA and exiting (ex: RWP, frisking). The concern is entering and exiting the RCA thru these two locations without positive controls for personnel working around these areas to comply with HPS-2 requirements.

D. Area(s) for improvement

- When removing permanent RCA boundary fence, establish either a temporary barrier (fencing) or post HP technician to control entry and exit from RCA.

E. Professionalism, Summary of Shift, Comments

1. Good shift turnovers, details and recommendations are well explained. Board walkdowns are adequate.
2. Professional attitudes are displayed regularly.
3. Observed the "A" AFW pump tests:
 - a) The first test, "A" AFW pump started and performed as expected. It tripped on electronic overspeed for what appears to be an RCO trainee closing FCV-4-2817 too fast. No other indications of malfunction were observed.
 - b) The second test "A" AFW pump started and came up to 5800 RPM, and flow oscillations were observed by the unit RCO. Shortly after, HIC-4-1457A and 1458A were switched to manual control. The "A" AFW pump again tripped on electronic overspeed. No indication of malfunctions were noticed on any components.
 - c) Flow Control Valves were stroked satisfactorily and then the "A" AFW pump was retested satisfactorily. Two items were noticed during this test:
 - Erratic flow indication on AIC-1457A was noticed (PWO written).
 - Governor oil level was higher than normal (PWO written).No Indications of malfunctions were noticed at any of the AFW stations. Pump shut down sequence was smooth and satisfactory.
4. Good communications between operators during the tests: (Control room, Auxiliary Feedwater Pump area, Feedwater platform).
5. Good interchange and discussion of plans and actions between operating personnel, System Engineer, STA and MOS members.

F. Recommendations

- Review present RCA boundary barriers and posting requirements to determine if better administrative controls are needed.
- Evaluate circumstances surrounding the two "A" AFW pump electronic overspeed trips and, if required, take appropriate actions. (PWOs written for Control Room flow indicator and governor oil level).

Completed By: Jesus Arias, Jr.
MOS ObserverDate: 01/21/88Reviewed By: [Signature]
Operations Superintendent- NuclearDate: 1/21/88Management
Review By:

<u>[Signature]</u>	<u>1/21/88</u>	<u>[Signature]</u>	<u>1/21/88</u>	<u>[Signature]</u>	<u>1/21/88</u>
PM-N	Date	SVP	Date	VP	Date

To: Operations Superintendent - Nuclear

Date: 01/20-21/88

From: Bob Dawson
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Shift turnover meeting
- Shift briefing
- Plant tour
- Auxiliary Feedwater pump surveillance

B. Immediate safety problems

None

C. Questionable work practices

None

D. Area(s) for improvement

- Roped off areas are being used as RCA boundaries. The MOS report of 01/18/88 described a situation where individuals could pass information in and out of the RCA without being monitored. I followed up on this observation during my tour. The two areas (See attached plant layout drawing) are roped off with no Security or Health Physics personnel present. Although I witnessed no one crossing this barrier, there were tools, shovels, wheelbarrow, etc. just inside the rope (in the RCA) that indicate someone was working in the immediate vicinity. (See recommendations).

E. Professionalism, Summary of Shifts, Comments

- Observed Auxiliary Feed Pump Surveillance. The conduct and coordination of this test were good. All personnel at the various stations communicated well with the test coordinator in the Control Room. Problems that surfaced during the test were researched thoroughly by shift personnel. The System Engineers and the Procedure Upgrade Program person on shift both responded to requests from Operations. Team cooperation was apparent. Certain portions of this evolution require follow-up. These are listed on the continuation page.

F. Recommendations

1. See Auxillary Feed recommendation (2) on the continuation page.
2. Strengthen the RCA boundary:
 - a. Build a temporary structure to provide a physical boundary or provide Security or Health Physics coverage to ensure no one inadvertently crosses into the RCA.
 - b. A quick review of the HP Manual or the HP procedures did not point out the plant's policy on measures to take while the RCA fence is removed. Consider providing guidelines to plant personnel on acceptable interim substitutes.

Completed By:

Bob DawsonMOS ObserverDate: 01/21/88

Reviewed By:

S.W. Pearce
Operations Superintendent - NuclearDate: 1/21/88Management
Review By:*7768*
PM-N1/21/88
Date*900*
SVP1/21/88
Date*765*
VP1/21/88
Date

MANAGEMENT INITIAL RESPONSE

Continuation Page

Page 3 of 3Date: 01/20-21/88Shift: ☐ Day
☒ NightAuxiliary Feed Pump Surveillance

1. Prior to starting the test, the turbine operator drained a large volume of water from the steam supply line. Upon further investigation, the steam trap to the condenser was lined up to Unit 3. Since Unit 3 is off-line and the condenser is partly filled, no effective trap action could occur.

Recommend the System Engineer research the piping from the trap to the condensers and lineup the trap to the operating unit's condenser. This will ensure the steam line continues to drain.

2. The System Engineer found that the Auxiliary Feed Pump governor oil was over filled. He initiated a PWO to drain it to the correct level. Since this oil is periodically sampled and refilled, we should pay more attention to the PWO which accomplishes this. The attached work description (PWO 6418) speaks of a "normal" oil level.

Recommend that the System Engineer provide the correct language in the PWO so that over filling is prevented. (PWO 6310 has a description that more closely resembles what is required, but its retest section should be clarified).

Bob Dawson

MOS Observer

HDL2DCOD

GENERATION EQUIPMENT MANAGEMENT SYSTEM
NUCLEAR WORK REQUEST CODEOUT DETAIL

01/21/88

03.

(2 OF 6)

PLANT/UNIT: FTM / 00 ER-PHO#: 69 / 6418 WORK REQUEST#: WAB73421243

LEAD MAINT DEPT : 2 PRIORITY : B5 UNIT COND REQ : 8

CLEARANCE REQ'D : CLEARANCE # : NPRDS ITEM : Y

RWP REQ'D : N RWP # : SFTY-CLS70-GRP: SR

CFR 50.49 ITEM : N WORKTYPE : 1 FIRE PROT REV : N

POST MAINT TEST : Y IST REQ'D : N REM DUR HOURS :

FLANNING ID : CNH EST MNHR : 4 MNHR STD :

CRAFT/#MEN/MNHR : SPEC / 1 / 4 / / /

ASSIGNED TO : JHH : : : / / /

JOB STD DESC #: OIL CREW: 4 : : :

WORK DESCRIPTION: 1.DRAW OIL SAMPLE FROM "A" AFW TURBINE GOVERNOR :

(SEE REX KIRKLAND FOR BOTTLES) :

2.ADD OIL,TYPE TEXACO REGAL 32,TO RESTORE OIL LVL
TO NORMAL IF NECESSARY. :

3.POST MAINT TEST: PUMP RUNNING WITH PROPER LEVEL :

INDICATION (MIDSCALE OF SIGHTGLASS) :

4.IF PROBLEMS ARISE CONTACT FS/QC FOR RESOLUTION. :

DEPRESS THE PF5 KEY TO PAGE FORWARD PF4 KEY ... TO PAGE BACKWARD

PF6 KEY TO RETURN

ENTER KEY.... TO PROCESS TRANSACTION

HDL2DQ

GENERATION EQUIPMENT MANAGEMENT SYSTEM
NUCLEAR WORK REQUEST PLANNING DETAIL01/21/88 03.26.25
(2 OF 8)

ANT/UNIT: FTM / 00 ER-PHO#: 69 / 6310 WORK REQUEST#: WAB73061548
LEAD MAINT DEPT : 2 PRIORITY : B4 UNIT COND REQ : 8
CLEARANCE REQ'D : CLEARANCE # : NPRDS ITEM : Y
RWR REQ'D : N RWP # : SFTY-CLS/Q-GRP: SR
CFR 50.49 ITEM : N WORKTYPE : 5 FIRE PROT REV : N
POST MAINT TEST : Y IST REQ'D : N REM DUR HOURS :
PLANNING ID : ESK EST MNHR : 4 MNHR STD :
CRAFT/#MEN/MNHH : SPEC / 2 / 2 / /
ASSIGNED TO : RFP : : / /

JOB STND DESC #:

CREW: 2

WORK DESCRIPTION: 1. FILL GOVERNOR OIL RESERVOIR WITH OIL, TYPE TEXACO :
REGAL 32, TO LEVEL ABOVE LINE ON SIGHT GLASS AND :
BOTTOM OF ELBOW CONNECTION. DO NOT OVERFILL!!!! :
2. USE CLEAN BOTTLES WHEN TRANSPORTING OIL. :
3. NOTE RIR # OF OIL BATCH USED & REMOVE GREEN TAG :
4. POST MAINT TEST: VERIFY PROPER OIL LEVEL WITH :
GOVERNOR RUNNING AT TEMPERATURE. LVL SHOULD BE :
ABOVE LINE AND BELOW ELBOW CONNECTION. :

DEPRESS THE PF5 KEY TO PAGE FORWARD PF4 KEY ... TO PAGE BACKWARDS
PF6 KEY TO RETURN
ENTER KEY.... TO PROCESS TRANSACTION

To: Operations Superintendent - Nuclear

Date: 01/21/88

From: Dennis Borgmann
(MOS Observer)Shift: ☒ Day *SDA*
☒ Night

A. Plant evolutions observed

- 0700 Morning meeting
- 0745 pre-shift briefing
- Diesel Generator surveillance
- Toured #3 Turbine Building
- End of shift meeting
- 1545 pre-shift briefing

B. Immediate safety problems

None

C. Questionable work practices

None

D. Area(s) for improvement

The removal of green tags (PWO) prior to a piece of equipment being declared back in service should be stopped, (Example; area Radiation Monitoring System still out of service but only two tags remain, seven tags were removed). By completing the Post Maintenance Test before removing the tags, fewer PWOs would be generated and less rework would be indicated. (See attached page from O-ADM-701).

E. Professionalism, Summary of Shift, Comments

1. No problems related to professionalism, good turnovers and attention to the boards.
2. PSN reviews MOS reports with crew during pre-shift briefings to ensure good practices are continued and bad habits are stopped.

F.

Recommendations

1. Include a page in the Plan of the Day which lists the Technical Specifications related equipment that is out of service. This would make the items more visible.
2. Along with the list of surveillances due for the day, include the surveillances for the next week again making them more visible.

Completed By:

Dennis BorgmannDate: 01/21/88

MOS Observer

Reviewed By:

S.W. PierceDate: 1/22/88

Operations Superintendent - Nuclear

Management
Review By:CHB
PM-N1/22/88
DateAS
SVP1/22/88
Date

VP

1
Date

MANAGEMENT INITIAL RESPONSE

To: Operations Superintendent - Nuclear

Date: 01/21-22/88

From: W.R. Williams, Jr.
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Quarterly plant management meeting
- Shift briefings and de-briefings
- Operation/I&C/STA interfaces on FCV-4-2818
- Toured Battery Rooms, Inverter Room, behind control boards and racks, Cable Spreading Room, and parts of Turbine Building ground floor.
- Meeting on Non-Conformance Report for FCV-4-2818, FCV-4-2817, and FCV-4-2833.

B. Immediate safety Problems

None observed

C. Questionable work practices

1. Hydrometers not being returned to storage rack after use, but left on top of batteries or in rack support tubes.
2. I&C reported to the Control Room with a PWO for tightening nuts on FCV-4-2818, but the work to be carried out was in response to a Non-Conformance Report on FCV-4-2818. Only one Post Maintenance Test Sheet was used. There was no test sheet for the PWO, only the resolution of the Non-Conformance Report.

D. Area(s) for improvement

Sink outside "3A" and "4B" Battery Rooms needs replacing. Enamel is gone in bottom of sink and metal is rusting.

E. Professionalism, Summary of Shift, Comments

- Good shift briefings and debriefings.
- ASPN covered with new trainees the need for attention to detail for completing paperwork, and maintaining quiet in the Control Room.
- The PSN took immediate action to control the noisy situation I observed.
- I&C could not attend the shift briefing for the midshift, but had made a call to advise Operations of this, and that they were pulling coil stacks in #3 containment.
- PSN asked Mechanical how long the repair for "A" Auxiliary Feedwater governor would require. Foreman responded, "I don't know just yet; but as soon as I evaluate the status of the job with the crew, I will call and let you know".
- Met with Chief/PSN/Watch Engineer to get Hydrometer issue resolved.
- Met with I&C shift supervisor to discuss PWO 6086 for additional test sheet. He obtained additional test sheet.

F. Recommendations

Replace sink outside "3A and 4B" Battery Rooms.

Completed By: W.R. Williams, Jr.MOS ObserverDate: 01/22/88Reviewed By: J.W. PaineOperations Superintendent-NuclearDate: 1/22/88Management
Review By:CHB
PM-N1/22/88
DatePO
SVP1/22/88
Date1
VP1
Date

MANAGEMENT INITIAL RESPONSE

To: Operations Superintendent - Nuclear

Date: 01/21-22/88

From: Bob Dawson
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Shift briefings
- Plant tour
- Shift turnover
- Auxilliary Feedwater Turbine Valve Teardown/Reassembly

B. Immediate safety problems

None

C. Questionable work practices

None

D. Area(s) for improvement

None

E. Professionalism, Summary of Shift, Comments

- Shift turnovers and communication continues to be good.
- Tour of the Auxilliary Building showed that housekeeping is in good shape.
- The on-shift personnel worked as a team to take action to improve their water inventory.
- Found apparent discrepancy in reporting of blowdown flow information. (See continuation page).
- Observed the teardown of the Auxilliary Pump Throttle Valve. The evolution was controlled by a detailed procedure. Maintenance personnel did a fine job adhering to the procedure.

F. Recommendations

1. My report form yesterday was a bit unclear in relation to Auxillary Feedwater Steam Traps. I recommend that a procedure change be implemented that allows Operations to align their steam traps to the operating unit condenser.
2. Blowdown Data/Chemistry Interface.
 - Operation should examine the need for blowdown flow data specific to each Steam Generator. If required, put it back in the RCO log.
3. Strengthen the communication interface between Chemistry and Operations.
 - Chemistry Department should consider obtaining data from the Control Room in person.
 - Chemistry should attend the 2330 meeting in the Control Room as the other department do.
4. Repair the minor errors on the flow diagram on the report. (See attached mark-up).

Completed By: Bob Dawson
MOS ObserverDate: 01/22/88Reviewed By: *[Signature]*
Operations Superintendent- NuclearDate: 1/22/88Management Review By: *CJB* 1/22/88 *[Signature]* 1/22/88
PM-N Date SVP Date VP Date

MANAGEMENT INITIAL RESPONSE

Continuation Page

Page 3 of 3Date: 01/21-22/88Shift: ☐ Day
☒ Night

I looked in the the blowdown data as reported on the Secondary Chemistry Report in the Plan of the Day package. The report form itself provides a good system visual aid and relates the sample results to the physical location they were taken from. The accuracy and availability of blowdown flow information is questionable. Blowdown flow data is no longer recorded on the RCO logs. The Digital Data Processing System records blowdown flow in 16 hours. The only record I could find of blowdown from each Steam Generator (S/G), is from the Chemistry report. There are indications of miscommunication that lead to incorrect information on the Chemistry report. The report calls for data in gpm. The Control room indicators read out in lbs/hr. The report of 01/21/88 gives Unit 4 blowdown flow as 55,000 gpm for each Steam Generator. In-reality; blowdown was 55,000 lbs/hr total. The Chemistry Technicians obtain their information from the RCO by phone. (See Recommendations).

Bob Dawson

MOS Observer

To: Operations Superintendent - Nuclear

Date: 01/22/88

From: Dennis H. Borgmann
(MOS Observer)Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- ° 0700 Morning meeting
- ° 0745 Pre-shift briefing
- ° Testing of "A" Standby Steam Generator Feedwater Pump
- ° Post Maintenance Testing of "4C" Charging Pump
- ° Fire Drill Unit 4 Feed Pump Room
- ° 1545 Pre-shift briefing

B. Immediate safety problems

None

C. Questionable work practices

None

D. Area(s) for improvement

Procedure O-OP-046 "CVCS Boron Concentration Control" does not have a section for recirculating the "C" BAST (Boric Acid Storage Tank) with the "3C" transfer pump. There is a section for recirculating the "A" and "B" BAST. This section apparently was lost somehow.

E. Professionalism, Summary of Shift, Comments

1. OTSC for O-OP-046 was completed quickly, so recirculation of the tank could be completed (Ref. section D.).
2. The Unit 4 Steam Generator Tube Leak and Reactor Trip procedures have the RCO look at the condenser air ejector gas monitor and main steam monitor alarms for indication of steam generator tube leakage, neither of these monitors are available. I&C should expedite restoring one or both of these monitors.
3. APSN emphasized the importance of ensuring all paper work is up to date and complete.
4. PSN reviewed precautions for starting circulating water pumps in preparation for putting waterboxes back in service.

F. Recommendation

Establish a means to coordinate the scheduling of surveillances which require Operations to support Maintenance and vice versa.

For example use "A Plan of the Shift". This should include what surveillances are to be done on the shift and which departments are involved.

The scheduling of surveillances is a big concern of PSNs and APSNs.

Completed By:

Dennis H. Borgmann
MOS ObserverDate: 01/22/88

Reviewed By:

D.W. Pearie
Operations Superintendent - NuclearDate: 1/25/88Management
Review By:

<u>J.B.</u>	<u>11/23/88</u>	<u>VP</u>	<u>11/25/88</u>	<u>VP</u>
PM/N	Date	SVP	Date	VP

MANAGEMENT INITIAL RESPONSE

To: Operations Superintendent - Nuclear

Date: 01/22/23/88

From: Bob Dawson
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Shift briefings
- Shift turnover
- Plant tour
- Auxiliary Feedwater Pump surveillance and troubleshooting

B. Immediate safety problems

None

C. Questionable work practices

None

D. Area(s) for improvement

None

E. Professionalism, Summary of Shift, Comments

- Summary of Auxiliary Feedwater Pump Surveillance:
 - Shift SROs got together and developed a game plan.
 - All personnel involved in the test were assembled for a pre-test discussion and assignment of responsibilities. This communication and planning led to a well coordinated test. The procedure was used to control the evolution.
 - During the test, the pump did not perform as expected. At this point, the test participants gathered in front of the Control Board to discuss what went wrong. By doing this, they blocked the RCO from his instruments and pulled his attention to the discussion. (See F.1.).
 - Operations personnel performed additional testing to ensure train operability in timely fashion.

F. Recommendations

1. When an activity or problem needs to be discussed, clearly define which RCO has the board responsibility and stay clear of his instrumentation. Troubleshooting discussions need to be held and space is limited. Discussions should be moved to the PSN's office or the center of the Control Room so that instrumentation is clearly visible at all times to the RCO.
2. Improve Radiation Monitoring capability on Unit 4. The following are all Out of Service:
 - Main Steam Line Monitor
 - SJAE Monitor
 - SJAE SPING Monitor

A Steam Generator Tube Leak could be more easily detected with these instruments in service.

Completed By: Bob DawsonDate: 01/23/88MOS ObserverReviewed By: [Signature]Date: 1/25/88Operations Superintendent - NuclearManagement
Review By:SNB
PM-N1/25/88
DateMD
SVP1/25/88
Date1
VP1
Date

MANAGEMENT INITIAL RESPONSE

To: Operations Superintendent - Nuclear

Date: 01/22-23/88

From: W.R. Williams, Jr.
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- 1:00 p.m. Plan of the Day meeting
- Shift briefings
- MOS turnover
- Fire pump test with thermography scan
- Toured "3C" Battery, "4C" Battery, and "3C" and "4C" D.C. Load Center Rooms.
- Test run of "B" and "C" AFW Pump

B. Immediate safety problems

None observed

C. Questionable work practices

None observed

D. Area(s) for improvement

1. The Fire pump/Jockey pump area under the High Tower and between the Storage Tanks has missing lighting, burned-out street lighting, and plugged drains. The area is dark and has puddles of standing water.
2. "3C" Battery and "4C" Battery have some corroded connections.
3. Health Physics and Chemistry representatives need to attend the start of shift briefings in the Control Room. (Watch Engineer was on the phone after the meetings trying to get information).

E. Professionalism, Summary of Shift, Comments

- Good exchange of information between attendees at shift briefings and de-briefing meetings. But there is something missing between the Plan of the Day/Department communications/Department coordination. I will continue to observe and formulate my thoughts over the next two (2) days.
- The 1:00 p.m. (1/22/88) meeting coordinators were not sure of the direction because no one from the 11:00 a.m. (1/22/88) canopy seal meeting was present to provide information and direction.
- With "4A" TPCW Motor out-of-service, the peak shift PSN took the opportunity to refresh his crew on the actions to be taken if the "4B" TPCW Pump failed during this time. He also cautioned h. crew on how to put the Circulating Water Pumps back in service and not damage piping or condensers.
- APSN addressed the need to keep watch when filling Main Generator with Hydrogen so as not to go over 75 psi.

F. Recommendations

1. Repair lighting in Fire Pump area and evaluate need for additional lighting.
2. Unplug Fire Pump area drains.
3. Tie "3C" and "4C" D.C. load centers together so that "3C" and "4C" Batteries can be taken out-of-service (one at a time). The corroded connections can then be disconnected, cleaned, lubed, and reconnected.
4. Have Health Physics and Chemistry representatives attend shift briefings in Control Room.
5. Assign coordination responsibility from satellite meetings that affect planning at 1:00 p.m. meetings.

Completed By: W.R. Williams, Jr.
MOS ObserverDate: 01/23/88Reviewed By: J.W. Ponce
Operations Superintendent- NuclearDate: 1/25/88Management
Review By: PM-N 1/25/88 SVF 1/25/88 VP 1
Date Date Date Date Date

MANAGEMENT INITIAL RESPONSE

To: Operations Superintendent - Nuclear

Date: 01/23/88

From: Dennis H. Borgmann
(MOS Observer)Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- ° 0700 Morning meeting
- ° 0745 Pre-shift briefing
- ° "A" AFW overspeed Trip Test
- ° "A" AFW Operability Test
- ° Startup of Unit 3 circulating water pump
- ° End of shift meeting
- ° 1545 pre-shift briefing

B. Immediate safety problems

None

C. Questionable work practices

None

D. Area(s) for improvement

On 01/22/88 about shift turnover time a NPO pressurized the Unit 4 main generator to approximately 87 psi. The normal pressure is around 75 psi. The NPO started the evolution while taking logs and received a call to do something else. The RCO found the high pressure condition while touring the board. During the 01/23/88 pre-shift brief the APSN emphasized the importance of maintaining control of evolutions. Common problem: No log entry by NPO.

This problem was caused by a series of things. They are as followed:

1. The NPO did not keep track of the evolution.
2. The Hydrogen regulator does not work, it has a PWO on it.
3. The Hydrogen high pressure alarm does not annunciate in the Control Room (E 9,1) (PWO is on it).
4. The main generator is almost on continuous pressurization. 400 to 800 psig per tube per shift is required to maintain Hydrogen pressure in the generator.

E. Professionalism, Summary of Shift, Comments

1. During the overspeed testing of the "A" AFW pump, four RCO trainees were allowed to operate the AFW pump for training. This provided them with some excellent hands on training.
2. AFW pump tests performed in the accordance with procedures no problems encountered. Second test performed due to NPO not getting readings before RCO secured pump.
3. Good turnovers by both shifts.

F. Recommendations

1. Late on 01/22/88 the SPING Air Ejector Monitor was placed out-of-service. Available process radiation monitors for steam generators tube leakage are now down to one monitor (Steam Generator blowdown). All of the monitors listed in the steam generator tube leakage and tube rupture procedures should be repaired quickly.
2. Generator high hydrogen pressure alarm for the Control Room needs to be repaired. (E 9, 1.)

Completed By: Dennis H. Borgmann
MOS Observer

Date: 01/23/88

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

Date: 1/25/88

Management
Review By:

JH 1/25/88 *MD* 1/25/88 */*
PM-N Date SVR Date VP Date

MANAGEMENT INITIAL RESPONSE

To: Operations Superintendent - Nuclear

Date: 01/23-24/88

From: Bob Dawson
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- Shift turnover
- Shift briefings
- Plant tour
- Normal mid-shift surveillances

B. Immediate safety problems

None

C. Questionable work practices

None

D. Area(s) for improvement

None

E. Professionalism, Summary of Shift, Comments

- Problem arose concerning access to locked-up areas. Discussed the implications of a bomb threat with the PSN and the Security Shift Supervisor. It appears that certain areas (such as NAB, Unit 1 and 2 storeroom) are not accessible to the Security Force or the PSN. A room to room search of the NAB would be impossible. (See F.1.).
- Relatively calm shift in terms of activities in progress. RCOs took the opportunity to conduct some good training with the hot license candidates.
- Unit 4 has 3 annunciators that routinely alarm. These 3 account for approximately 75% of all alarms received on this shift.
Targets are: G 4/3 Metal Impact
E 9/4 Exciter Cooler Temperature
E 4/6 Lube Oil Conditioner
(See F. 2.) These are a nuisance to the RCO.
- Excessive I&C traffic in the Control Room. RCO had to break up "non-technical" discussions.

F. Recommendations

1. Bomb threat
 - Ensure someone has the responsibility for each and every area or building on site so that an orderly bomb search may be conducted.
 - Give the responsible party enough keys to have access to those areas.
 - Update Bomb Threat Report Guide (Phone Numbers).
2. Take steps (in the very near term) to reduce the frequency of these alarms.

Completed By:

Bob Dawson

MOS Observer

Date: 01/24/88

Reviewed By:

R.W. Perre

Operations Superintendent- Nuclear

Date:

1/25/88Management
Review By:CWS
PM-N1/25/88
DateYD
SVA1/25/88
Date

VP

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Date

MANAGEMENT INITIAL RESPONSE

To: Operations Superintendent - Nuclear

Date: 01/23-24/88

From: W.R. Williams, Jr.
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- 1300 Planning meeting
- Electrical Maintenance Department turnover meeting
- Toured Turbine Decks and #4 condensate, polishing pre-coat pump room and lab, and #3 condensate polishing pre-coat room.
- Met with peak shift Mechanical Foreman and Temporary Relieving Supervisor to talk about Plan of the Day, PWOs, turnovers, and procedures.

B. Immediate safety problems

None observed.

C. Questionable work practices--

None observed

D. Area(s) for improvement

1. Coordination of shift schedules. I&C (midway into their shift) had to wait for Health Physics to have their end of shift de-briefs and beginning of shift briefs before they could continue their job. This was due to different work schedules.
2. Contractor entry gate taking excessive time to locate a person's badge (47 minutes in some cases) so he can enter plant. Also, personal hand carried items are being roughly handled. There is also a lack of zeal on the part of the guards to respond to the people waiting at the window to get their badge.
3. The "3" and "4" air ejector mufflers, "3" and "4" water fountains by exciter houses, and "3" and "4" hogging jets (SPING) are in need of being replaced on an accelerated basis.
4. "3" and "4" condensate polishing pre-coat pump rooms and Labs are in need of housekeeping and coordination. Various items on floor, on drums, on desk, on platforms, on tanks, etc. The North-West door to #3 pre-coat room has a broken door closer.

E. Professionalism, Summary of Shift, Comments

1. Still formulating thoughts on Plan of the Day/Communication /Coordination.
2. Electrical Maintenance Department turnover meeting was attended by off-going day chiefs, field supervisors, planning supervisor, production supervisor, planners, and oncoming peak crew chiefs. Very good status of what happened during day, plans for peak and mids, and marked up Plan of the Day for peak chief. Also they started a 5 to 7 day (depending upon work schedule) planning look ahead. Have a PWO ready to work list and a file by system of PWOs ready to work. This was a very informative and productive meeting.
3. Shift briefings continue to be good. Mechanical not at 2345 briefing.
4. PSN had to trackdown status of Control Room door repair.
5. Mechanical Maintenance concerned with new packing procedure and its limitations/restrictions.

F. Recommendations

- Coordinate shift schedules. (D. 1.).
- Review attention to detail with guards and how to use care when handling personal items of others. (D. 2.).
- Accelerate replacement of items listed in (D. 3.).
- Have members of Planned Maintenance Group get with peak shift Mechanical on new packing procedure. (E. 5.).
- Have condensate polishing area cleaned and storage coordinated. (D. 4.).

Completed By: W.R. Williams, Jr.
MOS Observer

Date: 01/24/88

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

Date: 1/25/88

Management
Review By:

W.R. 1/25/88 VP 1/25/88 VP 1
PM-N Date SVP Date VP Date

To: Operations Superintendent - Nuclear

Date: 01/24/88

From: Dennis H. Borgmann
(MOS Observer)Shift: ☒ Day
☐ Night

A. Plant evolutions observed

- 0700 Morning meeting
- 0745 Pre-shift briefing
- Valving in of the Heater Level Sightglass
- Desuperheater Steam Header High Temperature Low Pressure Alarm Test.
- 1300 Desuperheater Steam Relief Lifting
- End of shift meeting
- 1545 Pre-shift briefing

B. Immediate safety problems

None

C. Questionable work practices

None

D. Area(s) for improvement

1. Repair the Desuperheater Steam Header area. Unable to perform test.
2. Customer or user input should be used when revising operator logs, check sheets and turnover sheets. The sheet would be much better if the components were blocked together or the "A" and "B" equipment title was closer to the pump.
3. ARMS repair was unsuccessful on about one half of the channels that were required. This was identified after the Operators performed their surveillance. New PWOs may have been generated.
4. Electrical Maintenance should attend the pre-shift briefings.

E. Professionalism, Summary of Shift, Comments

- NPO was very knowledgeable in the reasons for warming a sightglass and the sequencing of the steps.

F. Recommendations

1. The desuperheater steam header needs to be repaired or replaced. This is probably a low priority system but some of the things are pretty old. The concrete is also eroding because of the condensate leaking out.
2. Desuperheater relief stopped lifting after additional condensate supplied to it. Relief could not be isolated because the isolation valve handwheel is broken.
3. When revising logs, checksheets and relief checklists, request input from the user or operators. None of the operators on shifts 2 and 4 had reviewed the changed relief checklists.
4. The ARMS should be fixed quickly so it can perform its design function.

Completed By: Dennis H. Borgmann
MOS ObserverDate: 01/24/88Reviewed By: *D. W. Pearce*
Operations Superintendent - NuclearDate: 1/25/88Management Review By: *CMB* 1/25/88 *VP* 1/25/88
PM/N Date SVP Date VP Date

MANAGEMENT INITIAL RESPONSE

To: Operations Superintendent - Nuclear

Date: 01/24-25/88

From: Bob Dawson
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolution observed

- Plant tour
- Nuclear Operator rounds
- Shift turnover
- Shift briefing
- Fire drill
- I&C troubleshooting Radiation Monitor
- Boric Acid batching/transfer

B. Immediate safety problems

None

C. Questionable work practices

None

D. Area(s) for improvement

Fire Drill

Observed the fire drill conducted at 0400 on 01/25/88. The fire brigade was well equipped and properly dressed out when they arrived on the scene. The team leader took control and assigned personnel to various tasks. The Fire Protection Supervisor did hold a good critique at the end of the drill. Several problem areas were evident. (See continuation page)

E. Professionalism, Summary of Shift, Comments

- Observed Nuclear Operator while batching acid and making rounds. Procedure was used and adhered to while the batching/transfer was in progress. The Nuclear Operator conducted a thorough set of rounds. He recorded his data and went out of his way to check on the condition of running equipment. All problems found were identified via PWO or notification to the Control Room. Good overall effort.
- I&C traffic in the Control Room was kept to a minimum. All I&C personnel in the Control Room were working on their PWOs 100% of the time.
- I&C troubleshooting of the Radiation Monitors was very methodical. Generic troubleshooting procedure was used to document the effort. The Technical and Administrative ends of this job were well handled.

Continuation Page

Page 3 of 3Date: 01/24-25/88Shift: ☐ Day
☒ NightFire Drill (Cont'd.)

1. The expected Fire Team Leader is the Nuclear Watch Engineer. Since he was not fire team qualified, the Nuclear Operator had to fill in. Further discussion revealed only two Nuclear Watch Engineers are Fire Team qualified.
2. The drill message what was read over the page was cut short. This made it difficult for the fire team to locate the area of the fire and caused a delay in arriving. The critique did not involve the Control Room participation portion of the drill so this feedback could not be passed on.
3. The drill scenario involved an injured Security Fire Watch person. Following his Fire/Explosion checklist, the PSN correctly dispatched his Nuclear Watch Engineer and another operator to investigate the injury and then called on the First Aid Team. The problem was that the First Aid Team Leader (Chemistry Technician) was already on the scene performing his role as a member of the Fire Team. This dual role led to confusion and improper attention to the injured person. (In making this point, I understood the previous involvement of the Nuclear Watch Engineer - the point to be made is the dual role of the Chemistry participant.)

Bob Dawson
MOS Observer

F. Recommendation

1. Qualify all Nuclear Watch Engineers to be Fire Team Leaders. If this qualification/requalification was made part of the SRO requalification effort, it would be more routine.
2. Observe the Control Room portion of the drill. Include Control Room personnel in the critique.
3. Separate Chemistry from the Fire Team or make other arrangements such that emergency roles are more clearly defined.

Completed By:

Bob Dawson

MOS Observer.

Date: 01/25/88

Reviewed By:

L.W. Pearce

Operations Superintendent- Nuclear

Date: 1/25/88Management
Review By:CJB

PM/N

1/25/88

Date

MD

SVP

1/25/88

Date

1

VP

1

Date

MANAGEMENT INITIAL RESPONSE

To: Operations Superintendent - Nuclear

Date: 01/24-25/88

From: W.R. Williams, Jr.
(MOS Observer)Shift: ☐ Day
☒ Night

A. Plant evolutions observed

- 1545 and 2345 shift briefing
- Breaker 3AC14 dual-Red and Green dim, indicating lights
- new shift turnover sheets implemented
- MOS turnover
- Fire drill for midnight shift

B. Immediate safety problems

None

C. Questionable work practices

None

D. Area(s) for improvement

1. I&C worked preventative maintenance and outstanding corrective maintenance work orders on Area Radiation Monitor System. PWOs were tested, 12 out of 24 failed. At 0700 (01/24/88) meeting Operations understood someone would work this during day shift. As of 2345 no work was done.
2. Fire drill (hydrogen explosion under #3 generator with injury).
 - a) Announcement was not clear and informative.
 - b) There was not a dedicated First Aid Member. Fifth Fire Team Member was the First Aid Member.
 - c) Hose was discharged due to miscommunication.
 - d) Hose was kinked in several places.
 - e) Fire Team Leader was a Nuclear Operator and it took him some time to get from RCA.
 - f) One Health Physics person responded without dressing-out to try and get credit for drill (miscommunications). He also did not have a hard hat. I let him know he needed a hard hat and please use it even for a fire drill.

E. Professionalism, Summary of Shift, Comments

1. Exchange of information good at shift briefing meetings.
2. Electrical Maintenance not present at 1545 meeting.
3. Chemistry and Health Physics not present at 1545 nor 2345 meetings.
4. No person on any shift with knowledge of the implementation of new shift turnover forms.
5. PSN and APSN continue to caution shifts on noise level control in Control Room.
6. Shift Director not present at 1545 nor 2345 meetings.

F. Recommendations

1. Insist that the designated Department Representative attend the Operations Shift Briefing Meetings in the Control Room. They also need to be prepared on what has been done the past shift and what is to be done on the present shift for their department. (E-2, E-3 E-6).
2. When log sheet and etc. are to be changed, the PUP representative on shift should show the change and get comments from shift prior to changing (E 4).
3. Keep Operations aware of change in work plans (D. 1).
4. Instruct individuals making announcements to be slow and concise (D. 2a).
5. Amplify need for Chemistry and Health Physics personnel to attend shift briefing to receive shift information (D. 2b). Also evaluate if more First Aid members are needed.
6. Let team know that hoses are not to be discharged during drills unless directed by the drill coordinator (D. 2c). Also stress the possibility of injuries when people are not expecting hose to be charged.
7. Retrain on how to layout hose (D. 2d).
8. Evaluate use of Nuclear Operator as team leader (D. 2e).
9. Let everyone know requirements for drill credit (D. 2f).
10. I am still collecting information on Plan of the Day/Communication/Coordination.

Completed By: W.R. Williams, Jr.
MOS ObserverDate: 01/25/88Reviewed By: J.W. Pearce
Operations Superintendent- NuclearDate: 1/25/88Management Review By: PMN 1/25/88 SVR 1/25/88 VP 1
Date Date Date Date