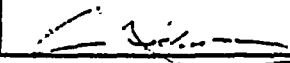


# OPERATIONS

## WNP-2 OPERATIONS INSTRUCTIONS

INSTRUCTION NUMBER OI-23	OPERATIONS MANAGER 	DATE 7/20/25
TITLE HUMAN PERFORMANCE IMPROVEMENT PROGRAM		

### 1.0 PURPOSE

This instruction defines the Human Performance Improvement Program within the Operations Department. It identifies sources of information on the performance of the department, in total, as well as crew and individual basis. This instruction also identifies who has responsibility for gathering the information and organizing it into useful forms to assist management personnel in recognizing excellent performance and improving the performance of the crews and individuals they are responsible to supervise.

### 2.0 DISCUSSION

Department personnel have a variety of information which identifies individuals, crews or the department's level of human performance. This information is either direct (individuals performance observed by other individuals, i.e. OI-9 program), or indirect (via overall plant capacity factor). This instruction addresses compilation, assessment and actions for direct information.

Direct information comes from the following sources:

- a. PERs which identify human errors by Operations personnel
- b. OI-9 Observation Program
- c. Gold Card Observation Program
- d. Personal Contamination Events (PCE)
- e. Radiation Exposure Summaries
- f. Training Observations
- g. Comments from other Operations department staff

Direct information which is documented in a corrective action program, such as PER and PCE, will be assessed during the resolution process on the issue. Actions to improve human performance will be developed and implemented as part of the process for resolving the issue. This instruction does not require any additional action for such cases.

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### 3.0 COLLECTION OF INFORMATION

- 3.1 All direct information will be coded with the following information.
- a. Date of the Event (PER, PCE) or observation (OI-9, Gold Card, Training Observations, Radiation Exposure Summaries, and comments).
  - b. Event or observation category (use the OI-9 Topical list).
  - c. Crew involved.
  - d. Individual involved (if applicable).
- 3.2 The coding will occur as part of the generation of document involved in reporting human performance, or will be provided by an individual assigned by Operations management.
- 3.3 All direct information will be routed to the Operations Administrative Specialist for data compilation.
- 3.4 The Operations Administrative Specialist will generate the data displays listed on Attachment 1, and ensure they are distributed as indicated.
- 3.5 The responsible shift supervision should maintain a confidential file of direct information, sorted by individual. All direct information will be placed in the file for the individual(s) causing the event, or observed. This file is open to review by the individual, the individual's direct supervisor, the Operations Department Manager and Assistant Operations Manager. Any other personnel requesting access to these files must be approved by the Operations Department Manager. Information in this file will be retained for not more than 24 months.

### 4.0 REVIEW OF THE INFORMATION

- 4.1 Shift managers and supervisors are expected to review the direct information from the OI-9s, training observations, PERs and PCEs in a timely manner. It is expected that most examples of weak performance will be "corrected" at the time of the observation. This correction should be in the form of an immediate action(s) to correct the situation, as well as a clear communication with the individual involved addressing the weakness, the management expectation and the way the employee can improve performance of the task. (See section 5.0 for more detail)
- 4.2 Shift managers and supervisors are expected to review the information in the file each month. The purpose of this review is to ensure that the human performance of an individual is recognized, and action taken to reinforce good performance, as well as correct/improve weak performance. The direct information file is expected to be reviewed in conjunction with assessments for individual performance appraisals or salary actions. This information is not expected to be the sole source for such reviews but is expected to be a large contributor.

- 4.3 In addition, the Shift managers and supervisors are expected to review the current months data and previous data to determine if any trends exist which may need additional coaching/action to improve performance.

## 5.0 HUMAN PERFORMANCE IMPROVEMENT ACTIONS

- 5.1 If the reviews performed in step 4.0 indicate that additional action is needed to improve individual human performance, then that action should be taken using the following guidelines.

- a. Improvement actions should be commensurate with the significance of the weakness observed (See G.I.H. 4.2.6.).
- b. If an individual is placed into the Human Performance Improvement Program, he must complete the following:
  - 1) Be observed per OI-9 by a peer or supervisor for the first activity of the shift for the task involved (hanging clearance orders, etc).
  - 2) Complete the task under observation for a minimum of two weeks and at least 10 observations.
  - 3) The OI-9 observations may be tracked using Attachment 2, if desired.

At the end of the observation period, the OI-9 observations will be reviewed by the responsible shift management. At that time, the shift management provides recommendations to the Operations Manager whether the individual may once again be released to perform the task independently or requires further performance under observation.
- c. If minor weaknesses are repetitive, the supervisor must exercise judgement on the need for additional observation, coaching or other actions, to prevent the weaknesses from recurring.
- d. Repetitive weaknesses may result in additional disciplinary action, up to and, including removal from the current position (See G.I.H. 4.2.6).
- e. The need for improvement actions should be based on an assessment of all observations, including both strengths, satisfactory performance and weak performance.

- 5.2 Improvement actions should be coordinated with the Training Department, so that training experience reinforces the expectations and improvements expected. Determination of the appropriate actions should involve the Operations Trainers to assure consistent teamwork on improvements in human performance.

## 6.0 DOCUMENTATION OF ACTIONS

- 6.1 Actions taken in response to PER, PCE and Training Observations are captured in those documents. Copies of completed documents should be in the individuals direct information file for information.
- 6.2 Actions taken during OI-9 or Gold Card Observations should be documented briefly on the respective forms. The forms are retained in the direct information file.
- 6.3 Actions taken for OI-9 Human Performance Improvement requirements are to be documented as part of the appraisal process and retained in personnel files.
- 6.4 Actions taken as a result of observations identifying repeated weaknesses, or based on radiation exposure summaries are to be documented as part of the appraisal process and retained in personnel files.

# Attachment 1

INFORMATION	PRESENTATION	DISTRIBUTION METHOD
PERs	<ul style="list-style-type: none"> <li>a. PERs per month, assigned to Operations on rolling 12 month look ahead.</li> <li>b. PERs per month sorted by OI-9 topic</li> <li>c. PERs per month, by crew sorted by OI-9 topic</li> <li>d. PERs per month, by individual "causing"</li> </ul>	Postings Postings Ops Mgr/SM(crew only) Ops Mgr/SM(crew only)
OI-9	<ul style="list-style-type: none"> <li>a. OI-9s performed each month sorted by topic</li> <li>b. OI-9s performed each month sorted by crew and topic</li> <li>c. OI-9s performed each month sorted by topic and level of individual performing observation.</li> <li>d. OI-9s performed each month sorted by topic and level of individual observed.</li> </ul>	Postings Ops Mgr/SM(crew only)  Ops Mgr/SM(crew only)  Ops Mgr/SM(crew only)
Gold Card	<ul style="list-style-type: none"> <li>a. Gold Cards generated per month sorted by OI-9 topic.</li> <li>b. Gold Cards generated per month sorted by topic and crew.</li> </ul>	Ops Mgr/SM(crew only)  Ops Mgr/SM(crew only)
Exposure Summaries	<ul style="list-style-type: none"> <li>a. Summary for the Department</li> <li>b. Summary by Crew</li> <li>c. Summary by Individual, in management level</li> </ul>	Postings Ops Mgr/SM(crew only) Ops Mgr/SM(crew only)

Attachment 2

HUMAN PERFORMANCE IMPROVEMENT TRACKING FOR \_\_\_\_\_

DATE	OI-9 OBSERVER	COMMENTS

COMPLETED SATISFACTORILY \_\_\_\_\_  
Shift Manager

Washington Public Power Supply System

Enforcement Conference

EA 95-096  
NRC Inspection Report 95-07

Arlington, TX

July 28, 1995

# **SUPPLY SYSTEM AGENDA**

## **Introduction**

J. V. Parrish, Vice President, Nuclear Operations

## **Discussion of Apparent Violations, Safety Significance, and Corrective Actions**

C. J. Schwarz, Operations Manager

## **Regulatory Perspective**

P. R. Bemis, Director, Regulatory and Industry Affairs

## **Summary**

J. V. Parrish



# **Discussion of Apparent Violations, Safety Significance, and Corrective Actions**

- Assessment of individual apparent violations:
  - ▶ Causes
  - ▶ Corrective actions
  - ▶ Actual safety significance
- Assessment of programmatic implications
- Generic corrective actions
- Summary

# **APPARENT VIOLATION 1**

## **Improper Operation of RWCU Valve**

- **Discovered by Supply System**
- **Primary cause:**
  - ▶ Willful violation by the CRS
- **Contributing causes:**
  - ▶ Supervisor involvement interfered with overview
  - ▶ Poor verbal communication
  - ▶ Supervisory contact with personnel too infrequent to detect worker attitude

# **APPARENT VIOLATION 1**

## **Improper Operation of RWCU Valve**

- **Corrective actions:**
  - ▶ **Control Room Supervisor and Shift Manager involved in event:**
    - **Removed from licensed duties**
    - **Requested termination of licenses**
    - **Appropriate disciplinary action taken**
  - ▶ **Operations Manager meeting with Shift Managers and Supervisors**
  - ▶ **HOT LINE notice to WNP-2 employees**
  - ▶ **Ensured no recrimination against reporting individual**
  - ▶ **Nuclear Safety Issues Program staff investigated event**
  - ▶ **Plant General Manager meetings with operations crews**
  - ▶ **Mandatory briefing of managers**
    - **"Time-Out" for WNP-2 workers**
  - ▶ **Control room management oversight function**

# **APPARENT VIOLATION 1**

## **Improper Operation of RWCU Valve**

- **No actual safety significance:**
  - ▶ Downstream piping was not overpressurized
  - ▶ Relief valve protection available
  - ▶ Automatic isolation capability available
  - ▶ No adverse impact on control of plant

# **APPARENT VIOLATION 3**

## **CAC Valve Switch Not in Position Required by Clearance Order**

- Discovered by NRC
- Causes:
  - ▶ Failure to self check
  - ▶ Inattention to detail
- Corrective actions:
  - ▶ Appropriate disciplinary action taken
  - ▶ Implemented due to our clearance order error findings:
    - Human Performance Tracking program
    - Human Performance Improvement program
- No actual safety significance:
  - ▶ Valve was in correct position
  - ▶ Redundant means used to ensure valve remained closed (fuse removal)
  - ▶ No automatic open function

# **APPARENT VIOLATION 4**

## **Inadequate Clearance Order for Vacuum Breaker Indication Repair**

- **Discovered by Supply System**
- **Causes:**
  - ▶ Personnel error preparing clearance order
  - ▶ Second review failed to identify the error
- **Corrective actions:**
  - ▶ Incident Review Board (IRB) investigation
  - ▶ The IRB report reviewed by Clearance Order Review Committee (CORC)
  - ▶ Appropriate disciplinary action taken
  - ▶ Control Room Operators to receive training on reading prints

# **APPARENT VIOLATION 4**

## **Inadequate Clearance Order for Vacuum Breaker Indication Repair**

- **Corrective Actions (continued)**
  - ▶ Control Room Operators to spend part of their relief week working with CORC as OJT
  - ▶ Developing a table top guide for clearance order second reviews
  - ▶ Will assign an operations SRO as a CORC supervisor
- **No actual safety significance:**
  - ▶ Workers took appropriate precautions for work on energized equipment
  - ▶ Complied with Technical Specification requirements for vacuum breaker indication

# **APPARENT VIOLATION 5**

## **Removal of Incorrect Fuse**

- **Discovered by Supply System**
- **Causes:**
  - ▶ Inadequate labeling
  - ▶ Equipment Operator wire identification training inadequate to compensate for poor fuse labeling
- **Corrective actions:**
  - ▶ Enhanced wire identification training provided to Equipment Operators
  - ▶ Evaluating improvements to affected fuse labeling
- **No actual safety significance:**
  - ▶ Momentary loss of power to an indication that had already been declared inoperable
  - ▶ Error discovered immediately and corrected



# **APPARENT VIOLATION 6**

## **Turbine Trip During Testing**

- Discovered by Supply System
- Causes:
  - ▶ Failure to self check
  - ▶ Inadequate supervisory oversight
  - ▶ Inadequate pre-job briefing
  - ▶ Poor labeling of levers
  - ▶ Adverse environment - high radiation and noise

# **APPARENT VIOLATION 6**

## **Turbine Trip During Testing**

### **● Corrective Actions**

- ▶ An Incident Review Board (IRB) investigated the event
- ▶ Painted turbine trip test and reset levers in contrasting colors, clearly labeled them
- ▶ Added step to test procedure referring to attached sketch of front standard
- ▶ Provided self checking training to equipment operators and on-shift operations supervision
- ▶ Reemphasized role of supervisor with on-shift operations supervision
- ▶ Developed pre-job briefing checklist, training operations crews on its use
- ▶ Event to be reviewed in licensed and non-licensed operator requalification training
- ▶ Appropriate disciplinary action taken

# **APPARENT VIOLATION 6**

## **Turbine Trip During Testing**

- No actual safety significance:
  - ▶ Transient bounded by FSAR analysis
  - ▶ No complications during Scram recovery

# **APPARENT VIOLATIONS 7, 8**

## **Mode Changes Made Contrary To Technical Specification 3.0.4**

- Discovered by Supply System/NRC
- Causes:
  - ▶ Startup procedure did not have a step to cue check for TS 3.0.4 compliance
- Corrective actions:
  - ▶ Startup procedures changed to require review before mode changes:
    - LCO status log
    - Surveillance log
    - Barrier impairment log
    - Panel walkdown

# **APPARENT VIOLATIONS 7, 8**

## **Mode Changes Made Contrary To Technical Specification 3.0.4**

- No actual safety significance:
  - ▶ MSLC
    - Allowed outage time in Operational Condition 2 was 30 days
    - Actual time out of service was 27 hours (restored 11 hours after mode change)
  - ▶ Vacuum Breaker Position Indication
    - Allowed outage time in Operational Condition 1 was 72 hours for an open vacuum breaker
    - Allowed outage time was unlimited for a failed position indication.
    - Actual time out of service was 4 hours

# **APPARENT VIOLATION 9**

## **Incorrect Operability Assessment For IRM E**

- **Discovered by Supply System/NRC**
- **Causes:**
  - ▶ Lack of understanding of critical IRM system operating characteristics
  - ▶ Lack of a questioning attitude
  - ▶ Use of engineering judgment without independent technical review
- **Corrective actions:**
  - ▶ System notebook updated to include effect of signal noise on IRM indication
  - ▶ Appropriate disciplinary action taken
  - ▶ Refresher training provided to personnel who perform operability assessments
  - ▶ Developing enhanced IRM system training
  - ▶ Interim engineering management review of operability assessments

# **APPARENT VIOLATION 9**

## **Incorrect Operability Assessment For IRM E**

- No actual safety significance:
  - ▶ At least two IRMs were operable on affected trip system: a scram requires only one IRM trip signal on each trip system.
  - ▶ IRMs not credited in WNP-2 safety analyses

# **APPARENT VIOLATION 2**

## **Service Water Valve Not Lock-Sealed**

- **Discovered by NRC**
- **Causes:**
  - ▶ No reason for manipulation of valve identified from records or interviews
  - ▶ Lock seal was still on valve -- valve was in correct throttled position
  - ▶ Monthly surveillance to check position did not require direct inspection of seal
- **Corrective actions:**
  - ▶ Checked similar valves
  - ▶ Revised surveillance procedure to require verification that seal is intact
- **No actual safety significance:**
  - ▶ Valve was in correct position
  - ▶ No other valves affected



# **APPARENT VIOLATION 10**

## **Failure to Take Corrective Action for Half-Scram**

- No PER required by procedure
  - ▶ Management expected a PER in this situation
- Corrective actions:
  - ▶ Supervisor coached operator and observed subsequent operation
  - ▶ Communicated PER threshold to crews
- No actual safety significance:
  - ▶ Response to event was correct
  - ▶ Event was properly logged
  - ▶ Reactor Protection System performed as designed
- Supply System does not believe this was a Criterion XVI violation, since adequate corrective actions were taken

# **ASSESSMENT OF PROGRAMMATIC IMPLICATIONS**

- As discussed earlier, the events did not individually have actual safety significance
- Evaluated for programmatic implications:
  - ▶ Safe plant operation, conservative decision making:
    - Prompt manual scram after symptoms of power oscillations
    - Controlled, methodical startups
  - ▶ Operator performance:
    - Good operator response to plant transients
    - Error free refueling operations during the Spring 1995 refueling outage
    - Plant shutdown for R10, economic dispatch

# ASSESSMENT OF PROGRAMMATIC IMPLICATIONS

- ▶ Operator performance (continued):
  - 2 plant startups before R10, 2 plant startups after R10
  - Good operator performance on requalification exams
  - Recent INPO observations
  - Problems with work control, communications, clearance orders: being addressed
- ▶ Procedural adherence
  - Only RWCU misoperation involved misuse of procedures; for other apparent violations personnel were following procedures but made errors
  - Plant startups and shutdowns were performed in accordance with procedures

# **ASSESSMENT OF PROGRAMMATIC IMPLICATIONS**

## **► Operability assessments:**

**→ Recent problems have been dealt with generically, conservative positions taken on equipment operability**

- Electrical penetrations**
- Agastat relays**
- Nuclear instruments**

- Supply System assessment: no programmatic implications**

# GENERIC CORRECTIVE ACTIONS

- Programs to improve weaknesses identified by Supply System and NRC assessments
- Implementation of Conger and Elsea recommendations
  - ▶ Operations instruction for TS decisions
  - ▶ Electronic TS LCO log
  - ▶ Team meeting with managers/supervisors/craft to ensure correct operability decision emphasis
  - ▶ Root cause analysis training
  - ▶ Enhancement of Problem Evaluation Request procedures
  - ▶ Training given to operators on use of Licensing Basis Document search tools

# **GENERIC CORRECTIVE ACTIONS**

## **(continued)**

- **Operations "Step Up Plan"**
  - ▶ Culture change
  - ▶ Leadership
  - ▶ Performance
  - ▶ Teamwork
  - ▶ Communications
  - ▶ Resources
- **Mid-cycle Self Assessment**
  - ▶ **NRC Communications Document**
    - 13 Areas, including Operations
    - Safety focus
    - Initiatives
    - Expected results
    - Measurement standards

# GENERIC CORRECTIVE ACTIONS

## (continued)

- Mid-cycle Self Assessment  
(continued)

Example: Operations Area, Safety Focus

- ▶ Objective: Safety Culture
  - Look for subtle issues
  - Raise issues
  - Deal with issues
- ▶ Initiatives:
  - OI-9 program
  - Management Oversight program
  - Management involvement and guidance for Technical Specification interpretations
  - Crew changes
  - "Gold Card" program
- ▶ Measurement Standard examples:
  - Automatic Scrams
  - Safety System Availability
  - Safety System Actuations
  - NOVs, LERs
  - Personnel errors

# **GENERIC CORRECTIVE ACTIONS**

## **(continued)**

- **Summary**

- ▶ Comprehensive corrective actions derived from self-critical evaluations
- ▶ Results will be measurable and used to change or add actions
- ▶ Frequent status reports to NRC



# THE REGULATORY PERSPECTIVE

- Overall Supply System position:
  - ▶ The Supply System acknowledges 9 of the apparent violations occurred
  - ▶ Apparent Violation 10 not a violation of Criterion XVI
- Overall significance:
  - ▶ No actual impact on public health and safety
  - ▶ Individual issues had no actual safety significance
  - ▶ No programmatic implications
- Mitigating circumstances:
  - ▶ Prompt and comprehensive corrective actions
    - Significant personnel action taken for deliberate procedure violation
    - Comprehensive corrective actions, including long-term integrated efforts

# THE REGULATORY PERSPECTIVE

(continued)

- ▶ Majority of issues were previously recognized by the Supply System due to the mid-cycle licensee assessment
  - 9 of 10 apparent violations in February 95, coincident with completion of self-assessment
- ▶ Two LERs issued for reportable events
- ▶ Six of the 10 apparent violations identified by the Supply System
- ▶ Only one of the apparent violations involved misuse of procedures

## ● Conclusion

# **SUMMARY OF KEY POINTS**

- No safety significant challenge to plant operations
- No programmatic implications
- Showing positive progress
- Implemented systematic and integrated action plan
- Supply System understands the problems and is aggressively pursuing the solutions

## 1995



