



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV

611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

MAR 27 1994

Docket: 50-285
License: DPR-40

Omaha Public Power District
ATTN: T. L. Patterson, Division Manager
Nuclear Operations
Fort Calhoun Station FC-2-4 Adm.
P.O. Box 399, Hwy. 75 - North of Fort Calhoun
Fort Calhoun, Nebraska 68023-0399

SUBJECT: MARCH 11, 1994, ENFORCEMENT CONFERENCE

This refers to the enforcement conference conducted at NRC's request in the Region IV office on March 11, 1994. This enforcement conference related to an apparent violation identified in NRC Inspection Report 50-285/94-06 dated February 22, 1994, and was attended by those on the attached Attendance List.

It is our opinion that this meeting provided a better understanding of the issues regarding the lack of attention to licensed duties by operators resulting in multiple instances of a lack of procedure adherence, procedural inadequacies, and concomitant instances of Technical Specification violations that occurred at your Fort Calhoun Station.

You discussed the events by providing event reviews, event causes, safety significance, and your corrective actions. You also acknowledged a declining trend in the performance of your licensed operators and presented the Operations Performance Enhancement Program (OPEP) that was implemented to reverse this trend. Through presentations by licensed operators, you also provided a licensed operator's perspective of the OPEP, which demonstrated the commitment to implement the plan. You also provided your perspective on possible enforcement actions in the summary of your presentation.

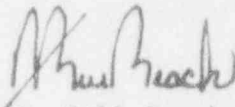
As indicated to you in the enforcement conference, we are evaluating the information you provided to us in the conference and will forward our enforcement decision in the near future. In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter will be placed in the NRC's Public Document Room.

9404040078 940327
PDR ADOCK 05000285
Q PDR

IFAS
1/10

Should you have any questions concerning this matter, we will be pleased to discuss them with you.

Sincerely,



A. Bill Beach, Director
Division of Reactor Projects

Attachments:

1. Attendance List
2. Licensee Presentation

cc w/attachments:

LeBoeuf, Lamb, Leiby & MacRae
ATTN: Mr. Michael F. McBride
1875 Connecticut Avenue, NW
Washington, D.C. 20009-5728

Washington County Board
of Supervisors
ATTN: Jack Jensen, Chairman
Blair, Nebraska 68008

Combustion Engineering, Inc.
ATTN: Charles B. Brinkman, Manager
Washington Nuclear Operations
12300 Twinbrook Parkway, Suite 330
Rockville, Maryland 20852

Nebraska Department of Health
ATTN: Harold Borchert, Director
Division of Radiological Health
301 Centennial Mall, South
P.O. Box 95007
Lincoln, Nebraska 68509-5007

Fort Calhoun Station
ATTN: James W. Chase, Manager
P.O. Box 399
Fort Calhoun, Nebraska 68023

bcc to DMB (IE45)

bcc distrib. by RIV:

L. J. Callan

DRSS-FIPB

Branch Chief (DRP/D)

RIV File

Lisa Shea, RM/ALF, MS: MNBB 4503

Resident Inspector

MIS System

Project Engineer (DRP/D)

Branch Chief (DRP/TSS)

Senior Resident Inspector - Cooper

RIV:C:DRP/D	D:DRP			
TFStetka;df	ABBeach			
3/22/94	3/21/94			

bcc to DMB (IE45)

bcc distrib. by RIV:

L. J. Callan

DRSS-FIPB

Branch Chief (DRP/D)

RIV File

Lisa Shea, RM/ALF, MS: MNBB 4503

Resident Inspector

MIS System

Project Engineer (DRP/D)

Branch Chief (DRP/TSS)

Senior Resident Inspector - Cooper

RIV:C:DRP/D	D:DRP			
TFStetka;df	ABBeach			
3/22/94	3/21/94			

ATTENDANCE LIST

Attendance at the enforcement conference between Omaha public Power District and NRC on March 11, 1994, in the Region IV office, Arlington, Texas:

Omaha Public Power District

G. Gates, Vice President
R. Short, Manager, Nuclear Licensing
J. Tills, Assistant Plant Manager - Operations
W. Jones, Senior Vice President
T. Patterson, Division Manager - Nuclear Operations
T. Reisdorff, Shift Supervisor
J. Cook, Shift Supervisor
C. Carlson, Shift Supervisor
M. Sandhoefner, Shift Supervisor

NRC

R. Mullikin, Senior Resident Inspector, Fort Calhoun Station, Division of Reactor Projects (DRP)
W. Brown, Regional Counsel
T. Gwynn, Director, Division of Reactor Safety (DRS)
A. Howell, Acting Deputy Director, DRP
W. Jones, Project Engineer, DRP
J. Montgomery, Deputy Regional Administrator
T. Stetka, Chief, Project Branch D, DRP
S. Bloom, Project Manager, Office of Nuclear Reactor Regulation
G. Sanborn, Enforcement Officer
L. Smith, Senior Resident Inspector, Arkansas Nuclear One
T. Liu, Reactor Engineer Intern, Office of Enforcement
J. Mitchell, Acting Deputy Director, DRS

FORT CALHOUN STATION



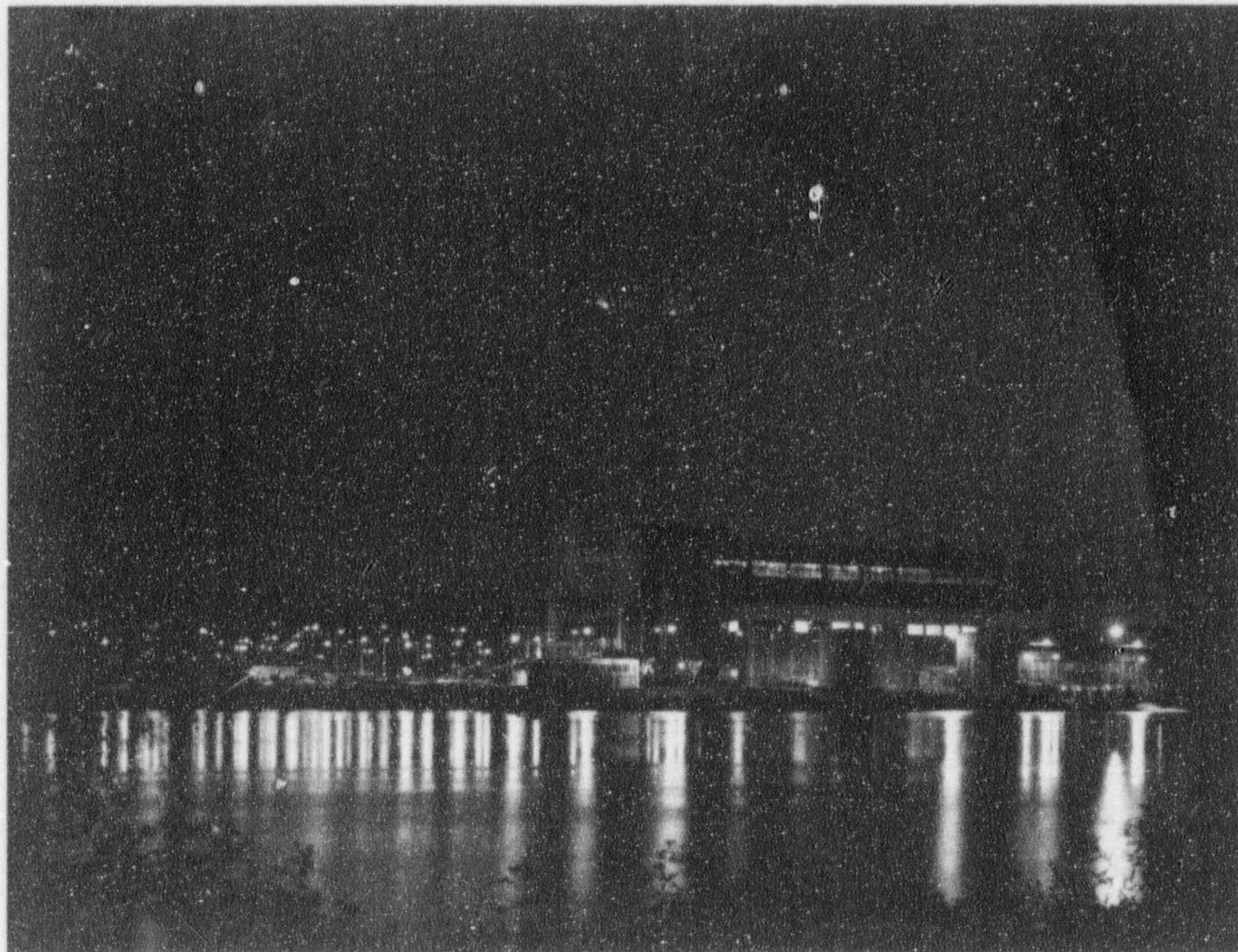
OMAHA PUBLIC POWER DISTRICT

NRC ENFORCEMENT CONFERENCE
MARCH 11, 1994

OPPD

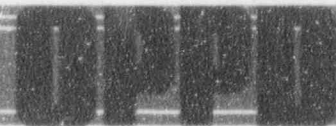
Omaha Public Power District

FORT CALHOUN STATION



OMAHA PUBLIC POWER DISTRICT

**NRC ENFORCEMENT CONFERENCE
MARCH 11, 1994**



Omaha Public Power District

NRC ENFORCEMENT CONFERENCE

AGENDA

- | | | |
|------|--|-------------------|
| I. | OPENING REMARKS | Bill Jones |
| II. | EVENTS DISCUSSION | Jim Tills |
| | ■ Event Review | |
| | ■ Event Cause(s) | |
| | ■ Safety Significance | |
| | ■ Corrective Actions | |
| III. | OPERATIONS PERFORMANCE
ENHANCEMENT PROGRAM (OPEP) | Jim Tills |
| IV. | SHIFT SUPERVISOR PERSPECTIVE | Shift Supervisors |
| V. | SUPPORT FOR OPERATIONS/
MANAGEMENT ISSUES | Gary Gates |
| VI. | SUMMARY/CLOSING REMARKS | Bill Jones |

OPENING REMARKS

- Introduce OPPD Participants
- OPD Presentation Format and Presenters
- Human Performance/Attention to Detail Concerns
- Management Review of Human Performance Trends
- Self-Assessment Performed and Operations Performance Enhancement Program (OPEP) Developed

UNPLANNED CONTROL ROD WITHDRAWAL EVENT

- **Event Review**
- **Event Causes**
 - Root Cause: Lack of a Ground Detection System
 - Several Electrical Grounds and a Jumper Found
- **Contributing Factors**
 - ARP/ST Did Not Specify Verifying CEA Position Following Abnormalities
 - Overreliance on Control Board CEA Position Indication
- **Safety Significance**
 - Low (Reactor Shutdown and 2036 ppm Boron Concentration)
 - Bounded by USAR CEA Withdrawal Incident
- **Corrective Actions (All Complete)**
 - Equipment
 - Comprehensive Troubleshooting Completed/Grounds and Jumper Removed
 - Ground Detection Modification Installed

UNPLANNED CONTROL ROD WITHDRAWAL EVENT

(Continued)

■ Corrective Actions (cont.)

Operator Response

- Crews Briefed on Event and Expectations of Using Multiple Indications
- Annunciator Response Procedure and CEA STs Revised
- SO O-1 "Conduct of Operations" Revised

AUXILIARY FEEDWATER PUMPS INOPERABLE DURING TESTING

- **Event Review**
- **Event Causes**
 - No Clear Direction for Equipment Operability During Testing
 - Inadequate Procedure Change/50.59
- **Safety Significance**
 - Low (18 minutes and Operator Action Credit)
- **Corrective Actions**

Complete

- Management Expectations Clearly Communicated
- Operations Memorandum Issued
- Expectations Discussed with PRC and Procedure Subcommittee

AUXILIARY FEEDWATER PUMPS INOPERABLE
DURING TESTING (Continued)

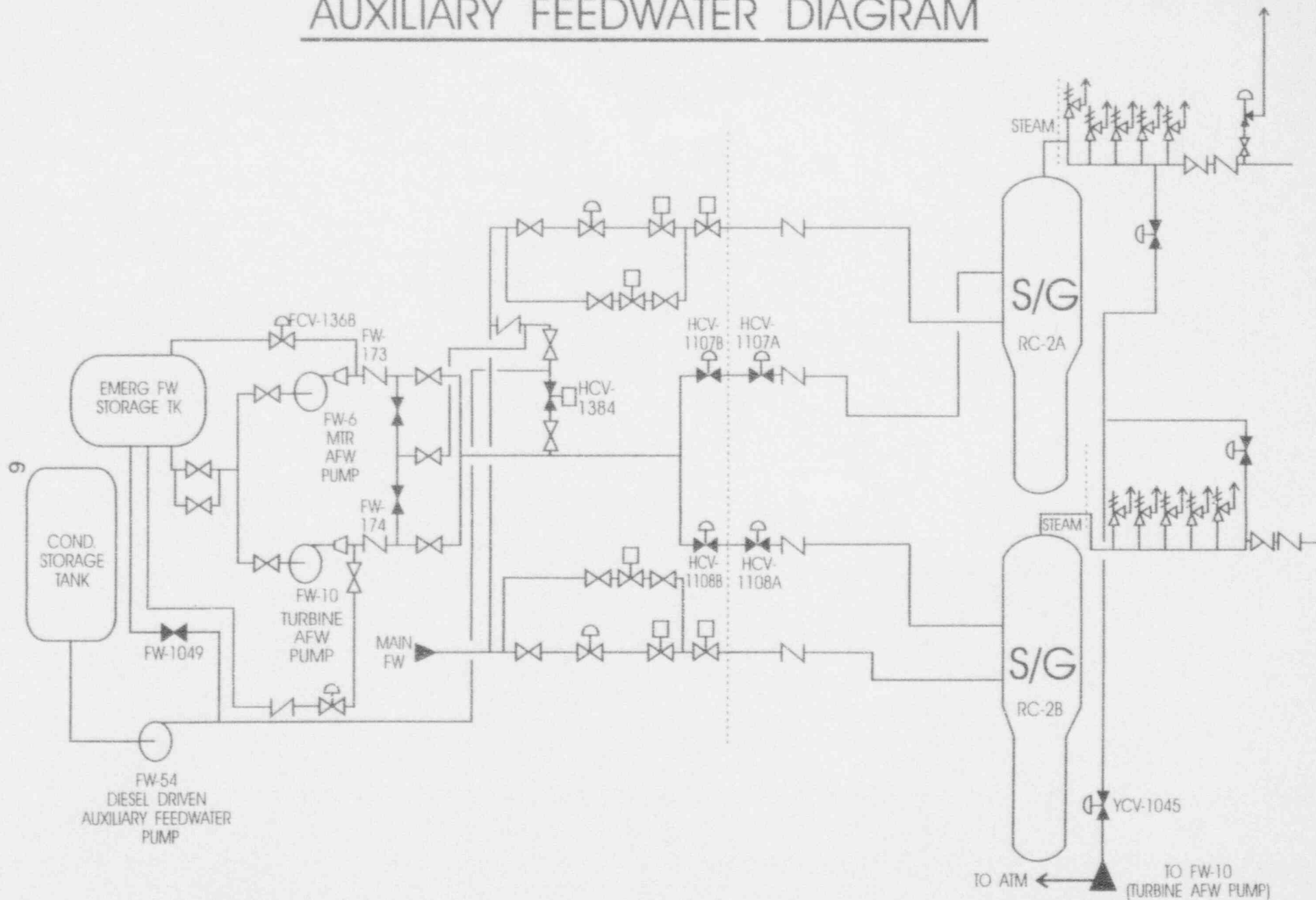
Complete (cont.)

- SO G-100 "Operability Dispositions"
Developed and Training in Progress
- AFW Surveillance Tests Revised
- 50.59 Qualifications Revoked

Planned

- Ops/Eng Training on SO G-100 and
Issuance (3/30/94)
- Qualified Reviewer Event Training
(3/31/94)
- All STs Reviewed (Prior to 1995 Outage)

AUXILIARY FEEDWATER DIAGRAM



TOXIC GAS MONITOR (TGM)/VENTILATION RECIRCULATION EVENT

- **Event Review**
- **Event Causes**
 - Root Cause: Failure to Follow Procedure on "N/A" Use
 - Contributing Causes
- **Safety Significance**
 - Low (Only 6 minutes and Hazards Review Conclusion)

- **Corrective Actions**

- Complete

- Operating Crews Briefed on Event/ Procedure Use
 - Ventilation System Lesson Plan Revised
 - OI-VA-3 Revised
 - Upgraded Switch Labels
 - Improved Scheduling Controls for TGM Tapes

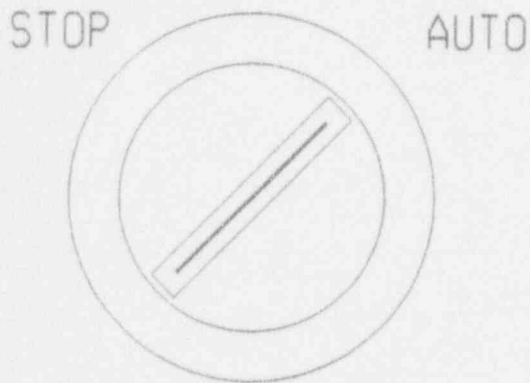
**TOXIC GAS MONITOR (TGM)/VENTILATION
RECIRCULATION EVENT (Continued)**

Planned

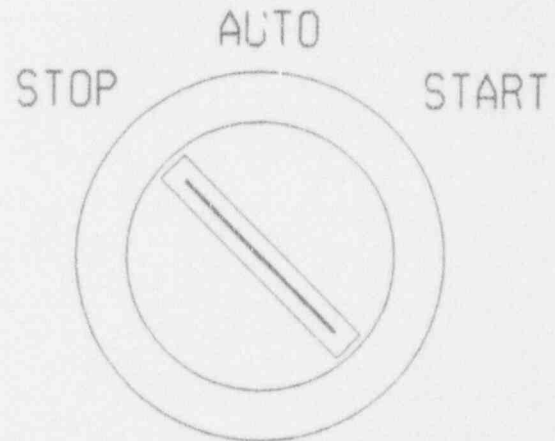
- Clarify "N/A" Use (3/31/94)
- Refresher Training on Ventilation System (4/15/94)

Control Room Ventilation System Control / Mode Selector Switches

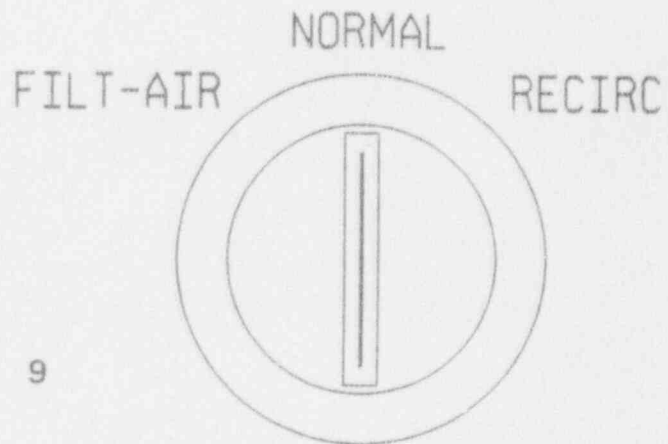
VA-63B
CONTROL SWITCH
HC-VA-63B



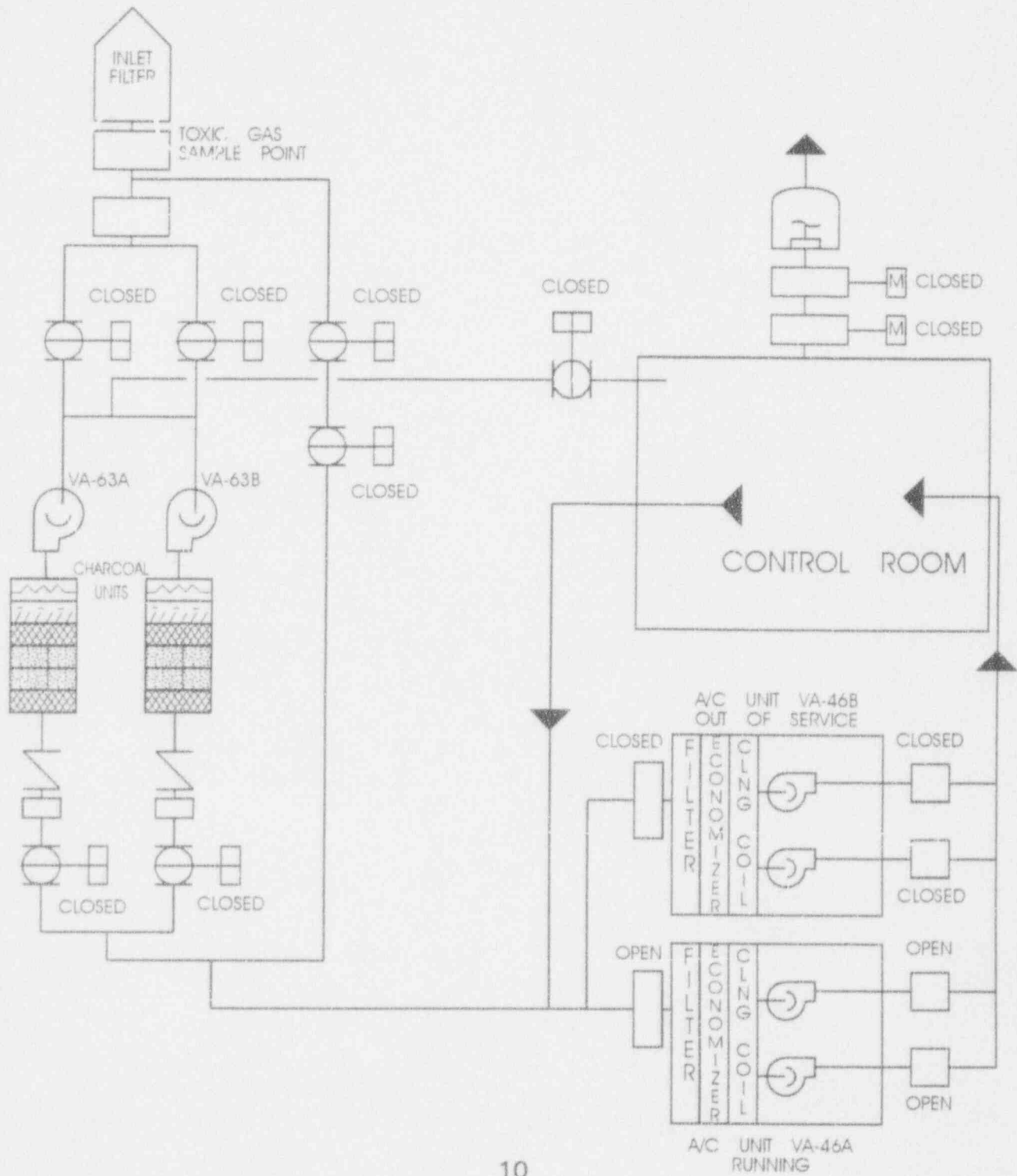
CONTROL ROOM A/C
VA-46B
HC-VA-46B-2



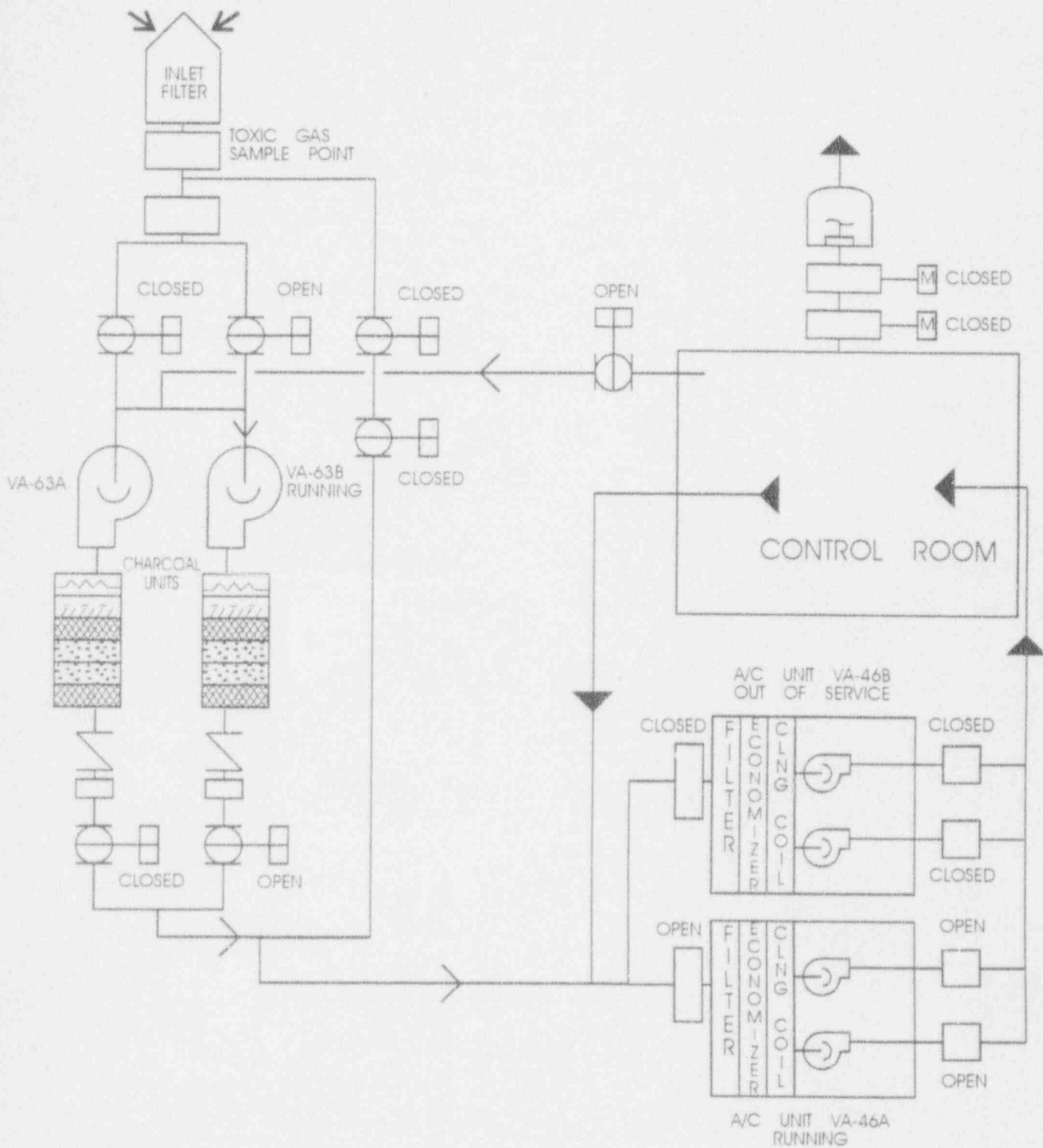
CONTROL ROOM A/C
ALIGNMENT
HC-VA-46B-1



CONTROL ROOM VENTILATION RECIRCULATION MODE



CONTROL ROOM VENTILATION FILTERED AIR MAKE-UP MODE



INADVERTENT BORON DILUTION EVENT

- **Event Review**
- **Event Causes**
 - Root Cause: Inadequate Command and Control
 - Contributing Causes
- **Safety Significance**
 - Low: Based on Engineering Evaluation and Event Bounded by USAR
 - Crew Performance Inadequate
- **Corrective Actions**

Complete

- Operating Crew Meetings Emphasizing
 - Command and Control
 - Reactivity Management
 - Pre-job Briefings
 - Communications
 - Procedure Usage
 - Self Checking
 - Formality

INADVERTENT BORON DILUTION EVENT (Continued)

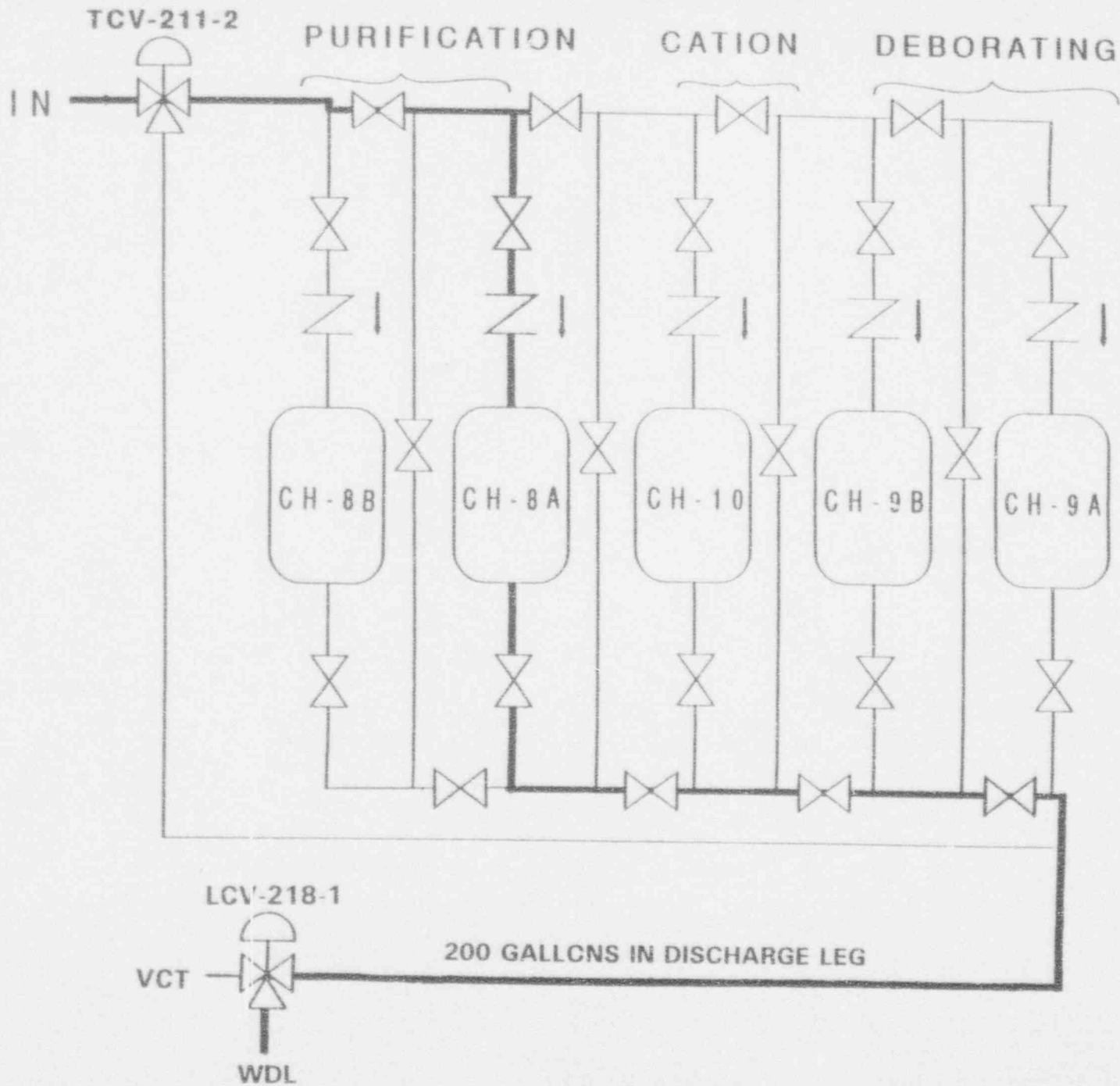
Complete (cont.)

- Increased CR/Operator Monitoring
- OI-CH-2 Revised
- Return to Shift Policy Developed
- OPEP Developed

Planned

- Further Guidance on Reactivity Manipulations (4/30/94)
- OPEP Corrective Actions (Various Dates)

ION EXCHANGER FLOW DIAGRAM



OPERATIONS PERFORMANCE ENHANCEMENT PROGRAM (OPEP)

- **Purpose:** Improve Operations Dept. Performance
- **Development**
 - Self-Assessment
 - Senior Mgmt., Operations Mgmt., Shift Supervisor and Operator Input
 - Corrective Action Plan (i.e. OPEP) Issued 2/94
- **Key Improvement Areas**
 - 1) **Command and Control**
 - Control Room Operations
 - Crew Composition
 - Standards
 - 2) **Sensitivity to Critical and Normal Evolutions**
 - Formality
 - 3) **Attention to Detail/Questioning Attitude**
 - Accountability
 - Maintaining the Questioning Attitude

OPERATIONS PERFORMANCE ENHANCEMENT PROGRAM

OPEP (Continued)

■ **Significant Corrective Actions**

Complete

- Meetings with All Crews - Formality Emphasized
- SS Demanding More From Crews
- Crew Composition Changes
- Policy on Minimizing Distractions
- SS Spending More Time in Plant
- Event of the Week Book
- Review of CR Layout
- Formal Observations of CR Operation

Planned

- One-on-One SS/Operator Meetings (3/13/94)
- Timely Briefings on New IRs (3/21/94)
- Additional Normal Operations Simulator Training (4/18/94)

OPERATIONS PERFORMANCE ENHANCEMENT PROGRAM
OPEP (Continued)

Planned (cont.)

- SS and LSO to Critique Simulator Sessions (4/18/94)
- Policy on Crew Composition (4/29/94)

SUPPORT FOR OPERATIONS ISSUES

ISSUE

Effectiveness of Licensed Operator Training

DISCUSSION

- Events Caused by Inattention to Detail/Failure to Follow Procedures
- Training Program is Considered Strong
- Lessons Learned/IRs are Incorporated into Training
- Quarterly Operations Training Advisory Committee Review

ISSUE

Inadequate Procedure Change (PC) and 50.59 for AFW Pump Testing

CORRECTIVE ACTIONS

- PC Preparer/Reviewer Qualifications Revoked (Complete)
- Mgmt. Expectations Clearly Communicated (Complete)

SUPPORT FOR OPERATIONS ISSUES (Continued)

CORRECTIVE ACTIONS (Cont.)

- Other Procedures/50.59s Reviewed (Complete)
- Qualified Reviewer Event Training (3/31/94)

ISSUE

Inadequate Use and Training on NOD-QP-31, "Operability and Reportability Determinations"

DISCUSSION

- NOD-QP-31 Not Applicable to AFW Pumps Event
 - Applies only to non-routine events and conditions
- No Clear Direction on Equip. Operability during Testing is the Issue
 - OER Program (via GL 91-18) was tracking
- AFW Pump Event Corrective Actions Resolve the Issue

MANAGEMENT ISSUES

■ **Critical Issues**

- Command and Control
- Sensitivity to Critical and Normal Evolutions
- Attention to Detail
- Questioning Attitude
- Control Room Communications

■ **Management Expectations Reemphasized**

- Individual/Crew Briefings and Discussion
- Nuclear Performance Meeting (2/8/94)
- Quarterly Maintenance Department Meeting (2/23/94)
- Plant Wide Meeting (3/2/94)

MANAGEMENT ISSUES (Continued)

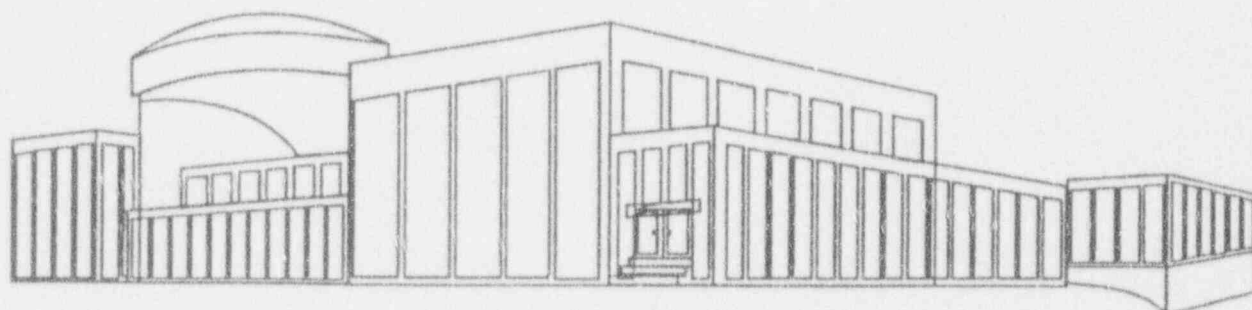
- **Effectiveness Monitoring/Follow-Up**
 - Increased Operations Management Oversight
 - Independent Follow-Up in 6-8 weeks (4/30/94) and 6 months (8/31/94)
 - OPEP Implementation Senior Management Status Meetings

SUMMARY

- Events/Problems Promptly Identified by OPPD
- NRC Promptly Notified
- No Willful or Deliberate Acts
- Comprehensive RCAs and Self-Assessment Completed
- Extensive Corrective Actions Completed or Planned
 - Includes OPEP
- Events had Low Safety Significance
- Operations Performance has been Good



FORT CALHOUN STATION



OMAHA PUBLIC POWER DISTRICT

OPERATIONS PERFORMANCE
ENHANCEMENT PROGRAM
FEBRUARY 1994

OMAHA PUBLIC POWER DISTRICT

OPERATIONS PERFORMANCE
ENHANCEMENT PROGRAM

Recommended by:

James W. Fells

2/23/94

Date

Approved by:

James W. Chase

2/24/94

Date

REVISION 0
FEBRUARY 23, 1994

OPERATIONS PERFORMANCE
ENHANCEMENT PROGRAM

Concurrence:

Terry M. Reisdorff
T. M. Reisdorff

Charles A. Carlson
C. A. Carlson

Michael J. Sandhoefer
M. J. Sandhoefer

J. B. Brown
J. B. Brown

C. F. Vanecek
C. F. Vanecek

R. Riderjoure
R. Riderjoure

James E Cook
J. Cook

J. W. Hills
J. W. Hills

J. W. Chase
J. W. Chase

T. L. Patterson
T. L. Patterson

W. G. Gates
W. G. Gates

W. C. Jones 2/24/94
W. C. Jones

INDEX

DISCUSSION

DEFINITIONS

A. COMMAND AND CONTROL

1. CONTROL ROOM OPERATIONS
2. TEAMWORK AND CREW COMPOSITION
3. OWNERSHIP OF PLANT/ACTIVITIES
4. PRIORITIES
5. STANDARDS

B. SENSITIVITY TO CRITICAL AND NORMAL EVOLUTIONS

1. PHYSICAL/ENVIRONMENTAL DISTRACTIONS
2. FORMALITY

C. QUESTIONING ATTITUDE/ATTENTION TO DETAIL

1. ACCOUNTABILITY
2. PROCEDURES/TOOLS
3. MAINTAINING THE QUESTIONING ATTITUDE

DISCUSSION

The declining trend in operator performance led to the review and development of this Operations Performance Enhancement Program (OPEP). Information in this program was collected from a variety of sources, including NRC Reports, INPO Reports, QA Reports, NSRG Reports and operator (both licensed and non-licensed) surveys. Compilation of the data, followed by several problem analysis sessions, categorized the findings into approximately 30 different areas.

Each area was reviewed and analyzed, resulting in its disposition either as one of the key areas of the plan, as a symptom of one of the identified problems, or as an opinion which would be noted but not addressed. Based on several problem solving sessions, items were grouped and suggested solutions were proposed. The key areas were formulated into problem statements and recommendation statements - in essence, a statement of the desired condition.

For each area, actions of two types - Completed and Future - were compiled. Some completed actions were already in place prior to this operational review. Implementation dates are noted in parenthesis () following each item. Completed actions were scrutinized by management to determine if the desired result had been, or would be achieved. Future actions were developed to address the specific concerns compiled through this review effort. The expected implementation dates are provided in parenthesis () following each future action. Changes to commitment dates as found within this program will require Vice President approval.

Each area has been assigned one or more performance measures. These are the measures OPPD has established to monitor progress in each of these areas. Many of these items are not "Performance Indicators" in the strict sense of the word, but are tools which management will use to gauge progress. Copies of observation reports will be routed to each person in line Operations management (Shift Supervisor to Senior Vice President) for an indication of progress in meeting program objectives. Indicators will also be used by support groups to ascertain progress in the problem areas.

DEFINITIONS

Observation Program (Standing Order G-78) - The purpose of the Observation Program is to identify potential problem areas and areas in need of improvement and to recognize good performance. The use of observations are solely for the use of management in areas requiring improvement(s) and/or recognizing excellence.

Observation process - process where one can see or sense through directed, careful, analytical attention and consideration of noted facts.

Observation Reports - Observation Report - document generated during and following the observation process that provides the following information.

- accurate description of deficiencies and needed improvements identified during the observation
- perspective and background information regarding the problems and the improvements by providing significant, relevant information developed during follow-up activities
- sound conclusions that define the extent and significance of the problems and improvements based on observations and follow-up activities
- level of detail necessary for Supervisors and Managers to assess how day-to-day work is being performed in the station
- sufficient information for Supervisors and Managers to analyze the deficiencies and look for common or reoccurring problems
- positive activities observed to allow assessment of previous corrective actions and provide positive re-enforcement

Shift Briefing - Meeting held at 0700, 1500 and 2300 between the Off-Going Shift Supervisors and the oncoming shift. Events of the previous shifts are highlighted, including any evolutions of interest which are in progress.

Turnover - The process of exchanging control between an individual watchstander and his/her relief.

On-Station Turnover - Water Plant Operator (AON) turnover in Waterplant, Auxiliary Building Operator turnover at AI-100, Turbine Building Operator (EONT) turnover at a location to be determined, SS/LSO/RO - at Control Boards.

A. COMMAND AND CONTROL

1. **Control Room Operations**

Problem:

Command and Control is not being consistently executed between Shift Supervisors, LSOs, and operating crews. In addition, a Command and Control inconsistency exists between normal and emergency operations.

Recommendation:

Policies, Programs, Procedures, Training and Operator feedback are utilized to foster and improve consistent Command and Control principles on a continuous basis.

Completed Actions:

1. Shift Supervisors are now involved with the critiquing of operating crews during evaluated simulator sessions on a quarterly basis with emphasis on Command and Control. (01/10/94)
2. Briefings have been held with all operating crews emphasizing communications, pre-job briefings, self checking and other Command and Control issues. (01/24/94)
3. Shift Supervisors are demanding more input from their crews in such areas as priorities, attention to detail, procedural compliance issues, the use of N/As in procedures, and possible corrective actions for events. (01/24/94)

Future Actions:

1. A review of the Control Room layout to enhance Command and Control was made. This review evaluated areas such as location of and types of desks, tables, computers, communications equipment, and location of procedures, drawings, etc. The recommendations from this review will be evaluated by 02/28/94 and implemented as appropriate.
2. Shift Supervisors will provide more input to critiques of their simulator crew performance following training and evaluated sessions. (02/28/94, 94:2 Rotation)

A.1 COMMAND AND CONTROL

Future Actions: (continued)

3. Periodic observations of crews will be performed during Normal Operations and Simulator Training Sessions by Operations and Training staff to evaluate and provide feedback on Crew Performance. Immediate feedback will be provided to the Shift Supervisor with written feedback to Operations Management. (03/04/94)
4. The Operations Policy Manual will be reviewed and updated if necessary to clearly reflect management's expectations with regard to Command and Control during normal and emergency operations. (04/01/94)
5. Administrative instructions for conducting observations with specific guidance for Command and Control and desired level of formality will be established. Immediate Feedback will be provided to the Shift Supervisor and crew, with follow-up to the Operations Supervisor. (04/04/94)
6. Simulator training will include additional normal operational evolutions, including mode changes, plant load maneuvers and surveillance activities during 1994. This will allow critiquing of pre-job briefings, use of procedures, and Command and Control issues. (04/18/94, 94-3 Rotation)
7. Command and Control will be further emphasized during simulator training sessions by utilizing LSOs to observe and critique performance. (04/18/94, 94-3 Rotation)
8. Some tasks traditionally performed by Shift Supervisors are being delegated to LSOs. To ensure a consistent application of the standards expected for these tasks, Shift Supervisors and Operations Management will provide additional mentoring and training for their LSOs. Areas where attention is being devoted include subjective aspects of responsibilities commonly defined in Standing Orders. For instance, the Shift Supervisor's obligations relative to MWOs are defined in Standing Orders, but the "hands-on", subjective criteria such as the factors a Shift Supervisor considers important is much less well defined. (07/01/94)

Indicators:

Feedback from Observation Reports
Evaluated Simulator Scenarios
Safety Significant Human Errors

A. COMMAND AND CONTROL

2. Teamwork and Crew Composition

Problem:

Crews are currently rotated every year. Definitions and criteria for crew composition are not clearly established. No definitive guidance exists for returning personnel to the shift crew rotation after an extended assignment off-shift.

Recommendation:

Crew composition is made on the basis of a critical analysis of required team skills, interpersonal skills, and technical skills. Crews are adjusted from a perspective of broadening an individual's experience base, and making the best match of skills. Personnel are adequately retrained and made aware of current operations policies, standards and expectations prior to being returned to the crew complement.

Completed Actions:

1. Shift Supervisors provide feedback on crew composition to Operations Management during monthly Shift Supervisor/ Operations Supervisor/Plant Manager Meetings to ensure the correct balance of interpersonal skills, technical skills, team skills, and experience. (02/03/94)
2. The composition of three (3) crews has been changed to improve total crew Command and Control and communication. (02/15/94)
3. An Operations Department Policy has been issued stating that more than one "7-day-per-quarter person" (a person maintaining their license via working on-shift only 7 days a quarter), will not be scheduled on the same shift at the same time without Operations Supervisor approval. (02/23/94)
4. An Operations Department Policy has been developed that provides guidance for bringing people back on shift when they have been away from shift related activities for a significant period of time (e.g., >3 months). (02/23/94)

A.2 COMMAND AND CONTROL (continued)

Future Actions:

1. Periodic observations of crews will be performed during Normal Operations and Simulator Training Sessions by Operations and Training staff to evaluate and provide feedback on Crew Performance. Immediate feedback will be provided to the Shift Supervisor with written feedback to Operations Management. (03/04/94) See A.1, Future Action 3.
2. An Operations Department Policy will be developed to provide detailed guidance on putting together crews. Areas that will be addressed include team skills, interpersonal skills, technical skills, and experience of crew members. (04/29/94)
3. A checklist of crew and team skills (interpersonal skills) will be provided for evaluating operators on-shift. These checklists will aid in making personnel assignments. (07/01/94)
4. Team skills refresher training will be provided to the Licensed Operators during Training Rotation 94-04. (07/25/94)
5. At least annually, crew composition, performance and possible crew changes will be evaluated. Adjustment in crew makeup to accommodate new personnel, enhance teamwork, and other subjective factors will be made on an as-needed basis. Input will be solicited from the Shift Supervisors to establish basis for changes. (12/28/94)
6. An Operations Department Policy will be developed that establishes a guide for "new crew" briefings to be given by the Shift Supervisor. The intent is to ensure a common understanding of expectations, standards, and responsibilities within the crew. This briefing would be used when crew changes are made. (12/28/94)

Indicators:

Evaluated simulator sessions
Observation Reports

A. COMMAND AND CONTROL

3. **Ownership of Plant and Activities**

Problem:

To varying degrees, operations personnel do not exhibit ownership of their spaces. This includes prioritizing repairs on equipment, full knowledge on what is being worked and when, buy-in to equipment modifications, and full awareness of when testing is scheduled or conducted.

Recommendation:

Operations believes they own the plant; each operator believes he/she owns the systems in the spaces. Operators believe they own the evolutions they are required to perform. The tests Operations performs are owned by Operations, and are viewed as necessary to support Operations equipment, not viewed as the System Engineer's test performed on the System Engineer's system. Operations concurrence is provided for planned plant modifications.

Completed Actions:

1. Ownership of Plant and Operations Activities is stressed at weekly Non-Licensed Operator - Operations Supervisor meetings. (01/24/94)
2. Ownership is fostered by recognizing particularly noteworthy actions by Operations personnel by Operations Management. (01/24/94)
3. The Auxiliary Building Operator and Water Plant Operator turnovers have been relocated to "on station". The Turbine Building Operator conducts turnover in the rear of the Control Room until a suitable location "on station" established. (02/23/94)
4. Shift Supervisors (utilizing feedback from crews) identify priority items needing attention in the "Operations Hot List" on the daily "Plan of the Day." Items on the Hot List are either repaired or feedback on the repair status provided to the Shift Supervisor by the end of the working day. (01/24/94)

A.3 COMMAND AND CONTROL (continued)

Future Actions:

1. Available Shift Supervisors will participate in meetings held by NRC, INPO and others where operational issues will be discussed. (An example is the participation of four Shift Supervisors in the 2/25/94 Enforcement Conference.) This will ensure clear understanding of the issues and help obtain Shift Supervisor support. (02/25/94)
2. The Relief or extra Shift Supervisor will attend regularly scheduled PRC (Plant Review Committee) meetings as their schedules permit. This will provide a management forum for the Shift Supervisor to raise issues and will broaden the Shift Supervisors' view of facility operations. (03/04/94)
3. A mechanism will be put in place to allow Operations to provide input on activities that go before Nuclear Performance Review Committee (NPRC). (03/15/94)
4. Meeting(s) will be held between Operations, Maintenance and Engineering to assure operations' expectations for work activities are understood. Examples of topics to be discussed include notifications to operators on status of work in their spaces, performance of activities/tests that may cause panel alarms, notification of personnel if work is delayed, etc. (03/31/94)
5. Training on how to conduct briefings will be provided to ROs, and selected equipment operators with the intent of their being able to brief personnel on activities which will take place within their space. This activity will be completed during Rotation 94-3. (06/03/94)
6. A suitable "on-station" location for the Turbine Building Operators to turnover will be established. (07/29/94)
7. In the long term, Shift Supervisors who want to become qualified as PRC alternates for the Operations Supervisor will be afforded the training to do so. (12/29/94)

Indicators:

Observation Reports

A. COMMAND AND CONTROL

4. **Priorities**

Problem:

Work activities are not consistently being accomplished in accordance with Operations priorities.

Recommendation:

The Operations Department takes an active role in establishing priorities for activities which affect plant operation. Operations directs tasks which occur in the plant rather than supporting them. The Operations Department is established as the focal point for coordination of activities and setting priorities to support safe plant operation.

Completed Actions:

1. A directive (SO-G-96; "Planned LCO Entry Criteria & Equipment Reliability Control") has been implemented which outlines expectations regarding required maintenance coverage when Technical Specification or plant reliability related equipment is removed from service for corrective or preventive maintenance activities. This ensures adequate staff coverage is in place and minimizes the time safety related equipment is unavailable due to maintenance. (09/21/93)
2. Operations supervision attends support group scheduling meetings to provide input on priorities and coordination needs. (01/10/94)
3. The Shift Supervisor (utilizing feedback from crews) indicates priority items needing attention in the "Operations Hot List" on the daily "Plan of the Day." Items on the Hot List are either repaired or feedback on the repair status is provided to the Shift Supervisor by the end of the working day. (01/24/94)
4. A Day Shift Manager position has been established to facilitate completion of operations priorities. Oversight is provided for pre-job briefings, maintenance work and surveillance testing. The position is currently staffed on an interim basis on a trial basis. (01/31/94)

A.4 COMMAND AND CONTROL (continued)

Completed Actions: (continued)

5. Management has reemphasized to the Operations Department the need to indicate priorities on the Plan of the Day so they can be tracked to completion by Management. A single point of contact has been established for each priority item. The priority items will be discussed each day at the Plan of the Day meeting. (02/22/94)

Future Actions:

1. Items listed on the Plan-of-the-Day Operations Priority List which are not completed by the established due date will continue to be listed on the priority list with the original due date to highlight the fact they have not been completed. Support Groups will not be able to reschedule these items without operations concurrence (02/28/94).
2. A single, integrated plant schedule that covers planned maintenance, testing, modification, and operational activities will be developed and supported by all plant staff. (06/01/94)
3. A Shift Supervisor will review the integrated plant schedule prior to issuance to identify conflicts and set priorities. (06/01/94)

Indicators:

Operator Work Arounds
Open MWOs
Number of Operations Priorities Overdue

A. COMMAND AND CONTROL

5. Standards

Problem:

Standards for Command and Control have not been consistently communicated and enforced to all members of the Operations Department during normal operations.

Recommendation:

All Operations Department members are aware of and held accountable to the established standards for Command and Control in both normal and off-normal (emergency) situations.

Completed Actions:

1. Shift Supervisors spend time in each watch location on a weekly basis to ensure their expectations are reinforced. This is an Operations Directive and an expectation of the Shift Supervisor. (01/01/94)
2. The Plant Manager and his direct reports tour the station on a weekly basis to ensure housekeeping standards are maintained and to ensure good work/safety practices are followed. (01/01/94)
3. Briefings have been held with each crew discussing previous problems related to procedure adherence, attention to detail, questioning attitude and self checking to ensure current management expectations are clear. (01/24/94)

Future Actions:

1. Shift Supervisors and the Operations Supervisor will ensure that high standards are applied consistently through the department during their plant tours. (Ongoing)
2. At least Quarterly, Plant Manager/Operations Supervisor meetings with the Shift Supervisors will continue to ensure management expectations are communicated. (Ongoing)
3. The Operations Department will review/update the current standards to ensure consistency and accuracy. Standards are defined by Operation's Standing Orders, OPD, Operations Memos, and Nuclear Policy Manual (Ongoing).

A.5 COMMAND AND CONTROL (continued)

Future Actions: (continued)

4. The Operations Department will communicate current standards to department personnel during weekly department staff meetings and will be an agenda item at the monthly Shift Supervisor meetings. The staff meeting will include available Shift Supervisors. Information will be compiled and distributed to Shift Supervisors not in attendance. (03/04/94)

Indicators:

Observation Reports

B. SENSITIVITY TO CRITICAL AND NORMAL EVOLUTIONS

1. **Physical/Environmental Distractions**

Problem:

There are distractions in the Control Room which detract from the Operator's ability to devote his/her attention to priority tasks.

Recommendation:

The level of distractions in the Control Room is minimized.

Completed Actions:

1. The Control Room Communicator is being used on an interim basis to answer the telephone and screen incoming calls in the Control Room. (02/14/94)
2. An Operations Department Policy has been issued establishing control of distractions by limiting the number of people and the number of activities occurring in the Control Room. (02/23/93)
3. The Auxiliary Building Operator and Water Plant Operator turnovers have been relocated to "on station". The Turbine Building Operator is conducting turnover in the rear of the Control Room until a suitable location "on station" is established [see #3 future action]. This will reduce the number of personnel in the Control Room. (2-23-94) (See A.3, completed action 3)

Future Actions:

1. A review of the Control Room layout to eliminate unnecessary distractions was completed. This review evaluated areas such as location of and types of desks, tables, computers, communications equipment, and location of procedures, drawings, etc. The recommendations from this review will be evaluated by (02/28/94) and implemented as appropriate.
2. Status boards will be acquired for each watch station location to facilitate communication of current pertinent information such as, maintenance underway within the watchstation, etc. (03/31/94)
3. A suitable "on-station" location for the Turbine Building Operator to turnover will be established. (07/29/94)

B.1 SENSITIVITY TO CRITICAL AND NORMAL EVOLUTIONS (continued)

Future Actions: (continued)

4. Control the number of phone calls to the Control Room.
(07/29/94)
5. A staging area will be provided for Non-Control Room Operations personnel to reduce the number of people in the Control Room, and provide for an area for studying and turnover. (10/31/94) (See A.3, Future Action 3)

indicators:

Observation Reports

B. SENSITIVITY TO CRITICAL AND NORMAL EVOLUTIONS

2. **Formality**

Problem:

Many plant evolutions are performed often enough to become routine. "Normal" plant evolutions are sometimes discounted as to their importance. The importance of evolutions with safety/reactivity implications can be down-played or hidden by the volume of tasks undertaken on a given day.

Recommendation:

Routine and non-routine critical evolutions, especially those with safety/reactivity implications, are executed in a formal manner.

Completed Actions:

1. The Operations Supervisor has established an "Event of the Week" book in order to bring issues, events, or other industry information to the attention of the crews. This information will enhance crew sensitivity by heightening awareness of issues, and by promoting discussions of "how we would deal with this issue if confronted." (01/10/94)
2. The Operations Supervisor expectations for briefings, decorum, sensitivity to activities, activity level in the Control Room, etc, have been conveyed to the Shift Supervisors and Operations Staff. The expectations are documented in the OPD. This ensures that time and resources are properly allocated to instill the proper sensitivity on the priority items. (01/24/94)
3. Critical evolution briefings are conducted by trained individuals, according to policy in a formalized manner. (01/24/94)
4. The Shift Supervisors crews have been reminded of their authority in control of their workspaces and in communicating these expectations to support groups working in the Control Room. The level of formality expected of support work groups when within the Control Room is being stressed. If insufficient formality is apparent, the individual is asked to comply or leave. (02/07/94)

B.2 SENSITIVITY TO CRITICAL AND NORMAL EVOLUTIONS (continued)

Future Actions:

1. Simulator training will be used to stress briefings as part of normal plant evolutions with the intent of making the "briefing process" routine. (03/04/94)
2. Periodic observations of crews will be performed during Normal Operations and Simulator Training Sessions by Operations and Training staff to evaluate and provide feedback on Crew Performance. Immediate feedback will be provided to the Shift Supervisor with written feedback to Operations Management. (03/04/94)
3. A Pre-Activity Briefing checklist, will be developed and located in the OPD to ensure consistent briefings are performed. (03/31/94)
4. Administrative instructions for conducting observations with specific guidance for Command and Control and desired level of formality will be established. Immediate feedback will be provided to the Shift Supervisor and crew with follow-up to the Operator's Supervisor. (04/04/94) (See A.1, Future Action 3)
5. An evaluation will be performed to determine if any of the paperwork currently required of the Shift Supervisor and LSO can be reassigned. (07/29/94)

Indicators:

Evaluated simulator sessions
Observation Reports

C. QUESTIONING ATTITUDE/ATTENTION TO DETAIL

1. **Accountability**

Problem:

The personal sense of accountability is sometimes diluted because of the number of personnel involved with activities, procedural requirements, administrative controls, tracking and trending mechanism, etc. Frequently errors are perceived as requiring a global or programmatic corrective action when, in fact, counseling the individual may be adequate. Individual performance weaknesses are not consistently owned.

Recommendation:

Personnel are held accountable for their actions. Individuals are responsible for ensuring their equipment is properly operating, or is appropriately reported. Individuals are responsible for stopping and achieving understanding or resolution if the provided information, direction, or equipment is unclear or unavailable.

Completed Actions:

1. Selected performance related Incident Reports (IRs) are covered in Requalification Training to ensure lessons learned are properly conveyed. From this, OPPD has seen a general downward trend. The errors are more specific than seen in the past. (01/93)
2. The Operations Supervisor presents selected operator performance related incidents at periodic Shift Supervisor and Staff Meetings to ensure lessons learned are conveyed. (01/93 and ongoing since)
3. The most recent Nuclear Performance Meeting contained a presentation of the most recent performance errors and emphasized the importance of a personal commitment to improve. (02/08/94)

Future Actions:

1. Ensure management standards and expectations (including how they are enforced) are consistently enforced for all work groups. (ongoing)

C.1 QUESTIONING ATTITUDE/ATTENTION TO DETAIL (continued)

Future Actions: (continued)

2. One-on-One Shift Supervisor/Operator "Meetings" will be performed to ensure consistent understanding of individual accountability. In addition, a commitment for ownership of individual performance weaknesses will be stressed. (03/18/94 - and periodically thereafter)
3. Shift Technical Advisors will provide brief feedback on new Incident Reports (written since the crew was last on shift) to the crew. (03/21/94)
4. A Process Management Team (PMT) on Corrective Action Programs was established in November 1993. This PMT is evaluating the effectiveness of existing corrective action programs, including ways to enhance individual accountability. (03/31/94)

Indicators:

Evaluated simulator sessions
Observation Reports
Incident Reports

C. ATTENTION TO DETAIL/QUESTIONING ATTITUDE

2. **Procedures/Tools**

Problem:

The Operations Department is not assigned responsibility for all categories of procedures that impact day-to-day operations. The Qualified Reviewer process has given more responsibility to Operations for OIs and OPs, but the rewrites are often not done by the end user. In the interim, Operations must live with the procedures and processes in place.

Recommendation:

Upgrades to procedures and tools identified by operators and staff members are evaluated and incorporated in a timely manner. Specific priority is assigned to the upgrade of tools based upon specific need.

Completed Actions:

1. Standing Order G-73A (Operating Procedure/Operating Instruction Writers Guide) has been developed to incorporate lessons learned from the Procedures Upgrade Project and human factors enhancements for the AOP/EOP Upgrade Project. (12/30/93)
2. The Procedures Maintenance Group has revised OPs and OIs specifically related to startup and shutdown utilizing the new Writer's Guide. (Prior to 1993 Refueling Outage - 9/93)
3. An Operations Memorandum was issued to clarify requirements for dedicated operators as specified in Generic Letter 91-18. Standing Order G-100 was written to formalize the requirements. Standing Order G-100 has been approved (02/10/94) and is undergoing Training before issue.

Future Actions:

1. A mechanism will be established to prioritize procedure upgrades submitted to the Procedure Maintenance Group by Operations Personnel based upon need. This priority system will give preference to procedures with reactivity/safety implications. Feedback on completion priority and expected date will be provided to the individual/crew requesting the upgrade. (03/31/94)

C.2 ATTENTION TO DETAIL/QUESTIONING ATTITUDE (continued)

Future Actions: (continued)

2. Standing Order G-7 (Operating Manual) will be revised to clarify guidance for justifying and documenting the use of N/As in reference or informational use procedures. If the proposed N/A changes the intent of the step, an N/A is inappropriate and a procedure change must be sought. (Example - if the step requires two switches to be placed in off, and the person wants to only place one in off. If this changes the intent of the step, a procedure change, not an N/A, would be required.) (03/31/94)
3. A review is being conducted to designate those procedures with Operational implications, with the intent of transferring those not under Ops "ownership" to within the Operation's Department. (04/15/94)
4. Shift Supervisors will become Qualified Reviewers to allow Operating crews to be able to submit and approve procedure enhancements as necessary. As much as possible the Shift Supervisor will be used as the Qualified Reviewer for his/her crew. (05/31/94)
5. A "Skill of the Operator" task list or Evaluation Criteria will be developed based on training and industry experience to specifically indicate tasks which can be performed without a procedure. (05/31/94)
6. Composite P&IDs will be completed consistent with Operation's requests. (08/31/94)
7. Upgrades of existing operations procedures to comply with the Standing Order G-73A will be performed consistent with the established priorities. (long term goal; expectation that a complete rewrite of OIs and OPs will be accomplished within 3 years.)

Indicators:

Procedure Maintenance Group
P&ID Request Backlog

C. QUESTIONING ATTITUDE/ATTENTION TO DETAIL

3. **Maintaining the Questioning Attitude**

Problem:

Problems continue to occur that should be identified and corrected.

Recommendation:

Questioning attitude continues to be stressed and enhanced. DUCS and Self-Checking are emphasized through pre-job briefings, mentoring, leadership and enforcement of standards.

Completed Actions:

1. OPD Policy 3.09 (Self-Checking/Attention to Detail) was issued February 25, 1993 to provide specific areas for applying self-checking principles. Training and briefings have been provided.
2. OPD Policy 3.08 (Crew Briefings) was updated and reissued January 24, 1994. Changes were briefed to Shift Supervisors. This policy provides direction for crew briefings for normal and emergency conditions.

Future Actions:

1. Personnel will continue to reinforce the positive aspects of the questioning attitude at every opportunity. (Ongoing)

Indicators:

Evaluated simulator sessions

NRC Inspection Reports

Observation Reports

Incident Reports

QA Reports

NSRG Surveillances