

*Official copy*

OCT 24 1995

Tennessee Valley Authority  
ATTN: Mr. Oliver D. Kingsley, Jr.  
President, TVA Nuclear and  
Chief Nuclear Officer  
6A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

SUBJECT: BROWNS FERRY OPERATIONAL IMPROVEMENTS - MANAGEMENT MEETING SUMMARY

Dear Mr. Kingsley:

On October 16, 1995, the NRC staff met at the NRC Region II Office with representatives of the Tennessee Valley Authority (TVA) management staff to discuss improvements in the area of Operations at the Browns Ferry Nuclear Plant.

Enclosure 1 is a list of the individuals who attended the meeting and Enclosure 2 is the handout material supplied by TVA.

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 and its enclosures will be placed in the NRC Public Document Room.

Should you have any questions concerning this letter, please contact us.

Sincerely,

(Original signed by M. Lesser)

Mark S. Lesser, Chief  
Reactor Project Branch 6  
Division of Reactor Projects

Docket Nos. 50-259, 50-260, 50-296  
License Nos. DPR-33, DPR-52, DPR-68

Enclosures: 1. List of Attendees  
2. Presentation Notes

cc w/encls: (See page 2)

9511140291 951024  
PDR ADOCK 05000259  
P PDR

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IE01

cc w/encls:

Mr. O. J. Zeringue, Senior Vice Pres.  
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Dr. Mark O. Medford, Vice Pres.  
Engineering & Technical Services  
Tennessee Valley Authority  
3B Lookout Place  
1101 Market Street  
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Mr. D. E. Nunn, Vice Pres.  
New Plant Completion  
Tennessee Valley Authority  
3B Lookout Place  
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Mr. R. D. Machon, Site Vice Pres.  
Browns Ferry Nuclear Plant  
Tennessee Valley Authority  
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Decatur, AL 35602

General Counsel  
Tennessee Valley Authority  
ET 11H  
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Mr. P. P. Carrier, Manager  
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Mr. T. D. Shriver, Manager  
Nuclear Assurance & Licensing  
Browns Ferry Nuclear Plant  
Tennessee Valley Authority  
P. O. Box 2000  
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Mr. Pedro Salas  
Site Licensing Manager  
Browns Ferry Nuclear Plant  
Tennessee Valley Authority  
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Decatur, AL 35602

TVA Representative  
Tennessee Valley Authority  
11921 Rockville Pike  
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Chairman  
Limestone County Commission  
301 West Washington Street  
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Montgomery, AL 36130-1701

Distribution w/encls: (See page 3)

Distribution w/encls:

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NRC Senior Resident Inspector  
 U.S. Nuclear Regulatory Commission  
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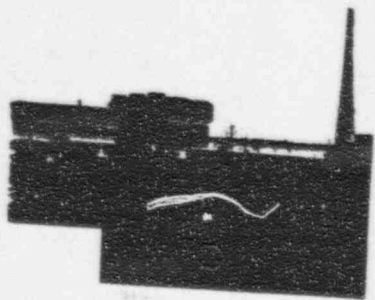
LIST OF ATTENDEES

NRC

S. D. Ebnetter, Regional Administrator, Region II (RII)  
J. R. Johnson, Acting Deputy Regional Administrator, RII  
E. W. Merschoff, Director, Division of Reactor Projects (DRP), RII  
A. F. Gibson, Director, Division of Reactor Safety (DRS), RII  
M. S. Lesser, Chief, Branch 6, DRP, RII  
L. D. Wert, Senior Resident Inspector, Branch 6, DRP, RII  
T. A. Peebles, Chief, Operator Licensing and Human Performance Branch, DRS,  
RII  
J. H. Moorman, Operator Examiner, DRS, RII

TVA

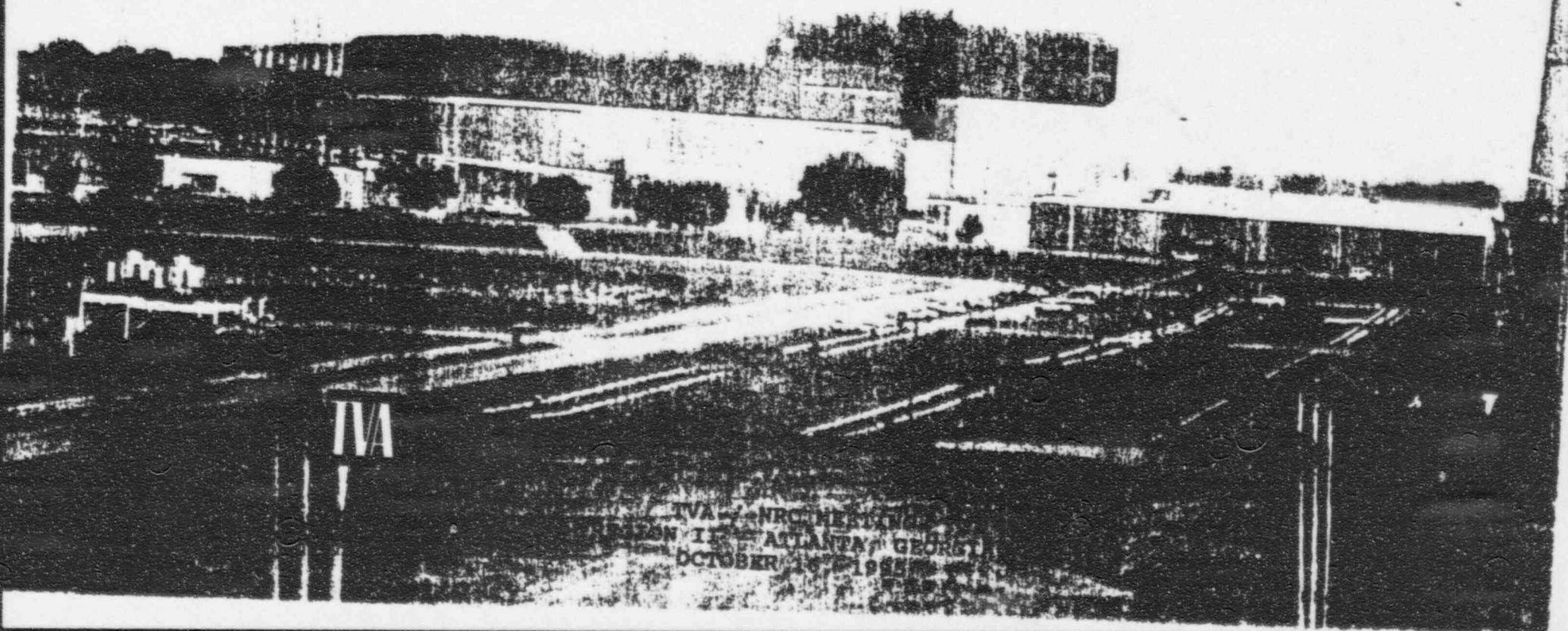
G. Preston, Plant Manager  
P. Salas, Licensing Manager



Tennessee Valley Authority (TVA)

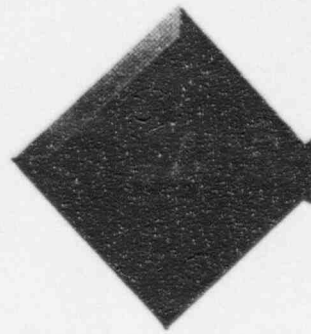
Browns Ferry Nuclear Plant (BFN)

OPERATIONS PERFORMANCE BRIEFING



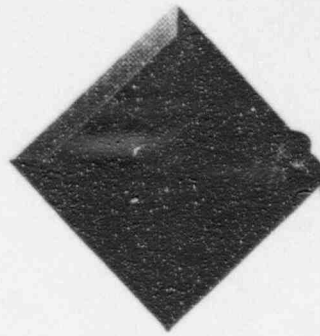
TVA

TVA - NRC HEADQUARTERS  
REGION II - ATLANTA, GEORGIA  
OCTOBER 16, 1985



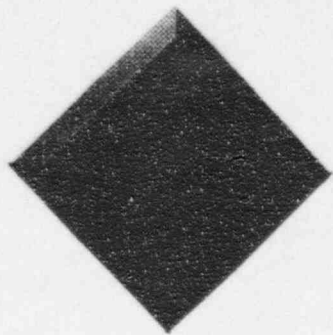
# ***REGULATORY PERFORMANCE***

- ❖ MANAGEMENT ATTENTION FOCUSED ON REDUCING THE NUMBER OF LICENSEE EVENT REPORTS AND NOTICES OF VIOLATION RELATED TO PERSONNEL EVENTS
- ❖ TVA IS DRIVING BFN TO BE AN INDUSTRY LEADER - TVA PARTICIPATED IN THE NEI PROGRAM FOR COMMITMENT MANAGEMENT AND A PILOT PROGRAM IN NEI/EPRI'S EFFORTS FOR IMPLEMENTATION OF THE THE NEW SOURCE TERM (NUREG 1465)



## ***BUSINESS PERFORMANCE***

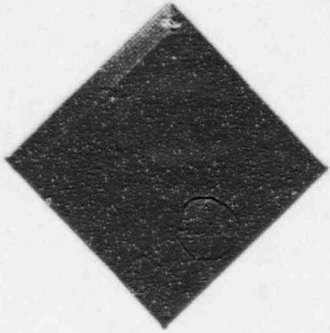
- ❖ TOTAL CAPACITY FACTOR HAS BEEN GOOD
- ❖ ROOT CAUSES OF FORCED OUTAGES BEING ADDRESSED (TURBINE CIRCUITRY MODIFICATIONS AND LONG-TERM REMOVAL OF SCRAM PILOT AIR HEADER LOW PRESSURE TRIP)
- ❖ CONTINUING DECLINE IN MAINTENANCE BACKLOG



# ***PROGRAMMATIC IMPROVEMENTS***

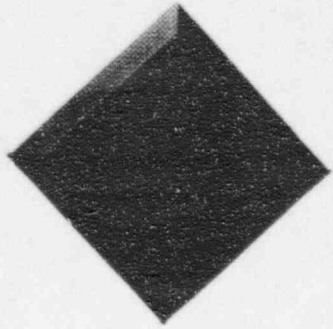
- ❖ IMPROVED CORRECTIVE ACTION PROGRAM DRIVING REPORTING THRESHOLD DOWN TO ALLOW EARLIER IDENTIFICATION OF ADVERSE TRENDS
- ❖ DEPARTMENTAL AND SYSTEM HEALTH WINDOWS
- ❖ PROCEDURAL ADHERENCE IMPROVING AND CONTINUES TO BE STRESSED
- ❖ IMPLEMENTING A COMPUTER-BASED METHOD OF PROCESSING WORK ORDERS AND WORK REQUESTS TO STREAMLINE AND SPEED THE PROCESS AND IMPROVE OVERALL EFFICIENCY
- ❖ A 12-WEEK ROLLING SCHEDULE FOR THE SITE ALLOWS GREATER RESOURCE INTEGRATION (E.G., MAINTENANCE, OPERATIONS, AND PROCUREMENT)
- ❖ FIX-IT-NOW TEAM





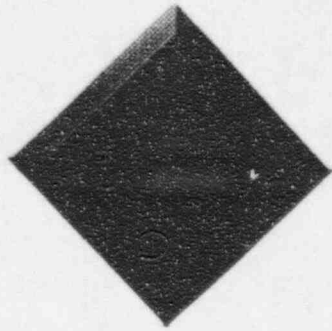
# ***FUTURE / ONGOING INITIATIVES***

- ❖ **ACHIEVE IMPROVEMENTS IN MATERIAL AVAILABILITY**
- ❖ **CORRECT LONG-TERM EQUIPMENT PROBLEMS**
  - **TURBINE DRAIN INLEAKAGE**
  - **ALIGNMENT ISSUES WITH CONTAINMENT PURGE VALVES**
  - **UPGRADE HPCI PUMP IMPELLERS**
  - **MSRV PILOT VALVES**
  - **REFUEL PLATFORM**
  - **CONDENSATE DEMINERALIZER**
  - **TRAVELING WATER SCREENS**
- ❖ **APPENDIX R FIDELITY**
- ❖ **CONTINUE AGGRESSIVE ISSUES MANAGEMENT**
- ❖ **IMPROVEMENTS TO FOREIGN MATERIAL EXCLUSION CONTROLS**
- ❖ **OPTIMIZE PREVENTIVE MAINTENANCE PROGRAM**
- ❖ **MINIMIZE OUTAGE DURATIONS**
- ❖ **INITIATE MANAGEMENT CROSS-TRAINING PROGRAMS AFTER THE UNIT 2 CYCLE 8 OUTAGE**



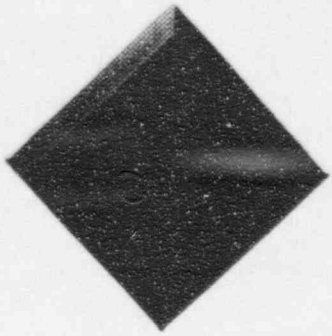
## ***GOALS***

- ❖ **ACHIEVE A SALP 1 RATING IN OPERATIONS**
- ❖ **ALSO, ACHIEVE A INPO 1 RATING IN OPERATIONS**



***BFN OPERATIONS  
DEPARTMENT***

**READINESS PLAN FOR DUAL  
UNIT OPERATION  
AND  
FUTURE EXCELLENCE**



# ***CHALLENGE***

- ❖ DEMONSTRATING OPERATIONAL EXCELLENCE WHILE STARTING UP A UNIT AND OPERATING ANOTHER
- ❖ DEMONSTRATE SALP 1 PERFORMANCE
- ❖ NO CONSEQUENTIAL PERSONNEL ERRORS
- ❖ NO NOV<sub>s</sub> DUE TO INAPPROPRIATE OPERATOR PERFORMANCE
- ❖ NO ISSUES WHICH CHALLENGE NUCLEAR SAFETY



# *OPERATIONS MANAGEMENT FINDINGS*

## ❖ **PEOPLE**

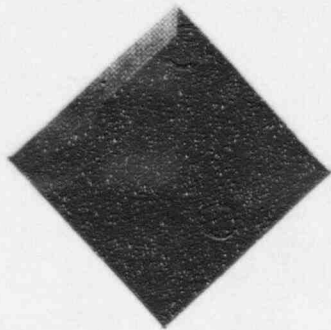
- PERFORMANCE STAGNATED AND BECAME COMPLACENT UPON RESTART OF UNIT 2 AND ACHIEVEMENT OF SALP 1 RATING

## ❖ **PROCESSES**

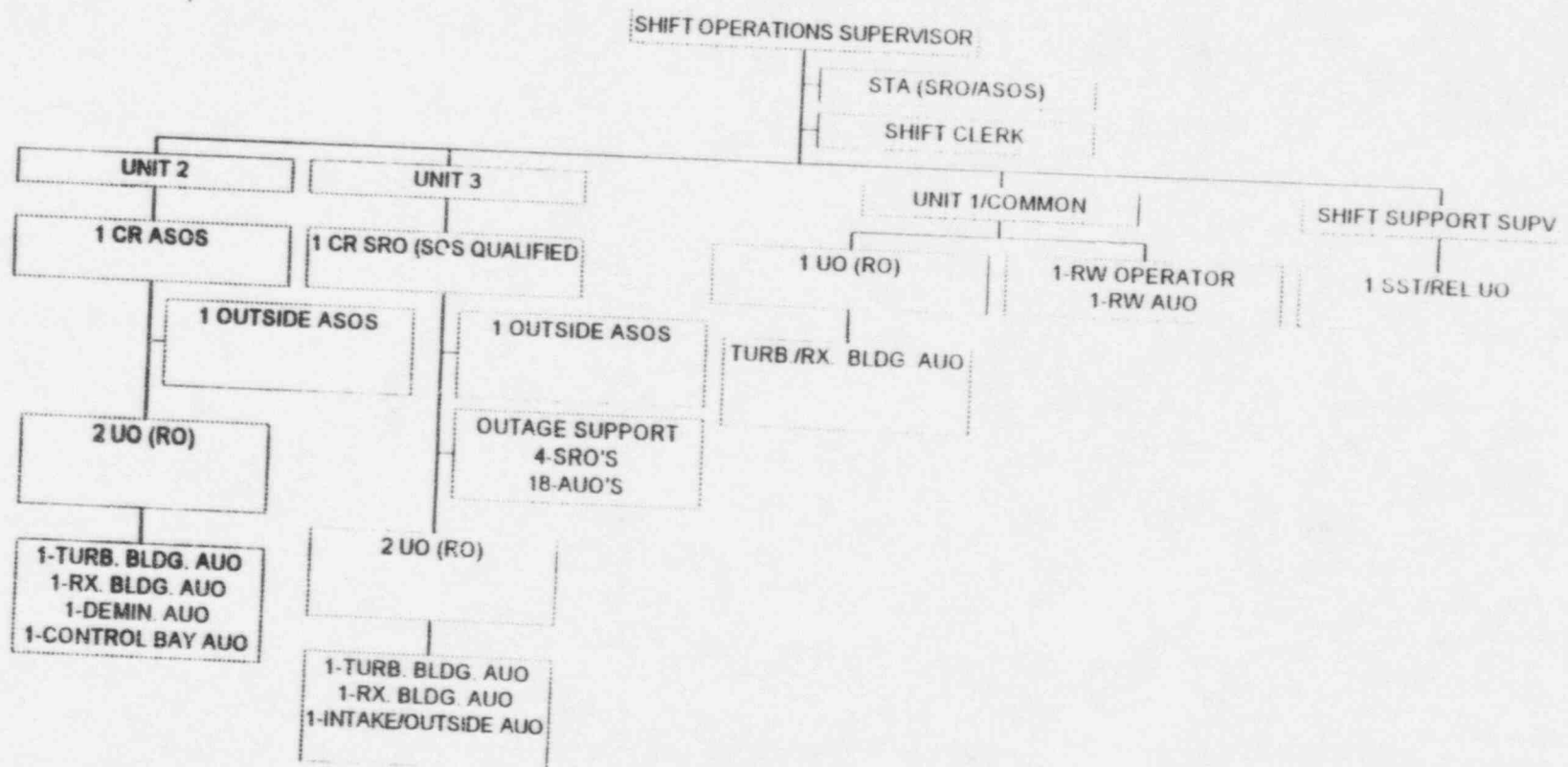
- PROCEDURES WERE NOT WRITTEN TO ENSURE RESTORATION OF COMPONENTS TO NORMAL BEFORE RESTORING TO OPERATIONAL STATUS
- ORGANIZATION BECAME ISOLATED AND STOPPED REVIEWING INDUSTRY GOOD PRACTICE TRENDS FOR IMPROVEMENT AT BFN

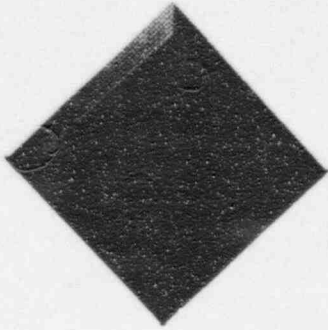
## ❖ **MANAGEMENT**

- NOT PROACTIVE TO RECOGNIZE THE CHALLENGES A NORMAL REFUELING OUTAGE WOULD POSE
- WAS NOT PROACTIVE IN ENSURING THE SELF-ASSESSMENT PROCESS IDENTIFIED COMPLACENCY / STAGNATION

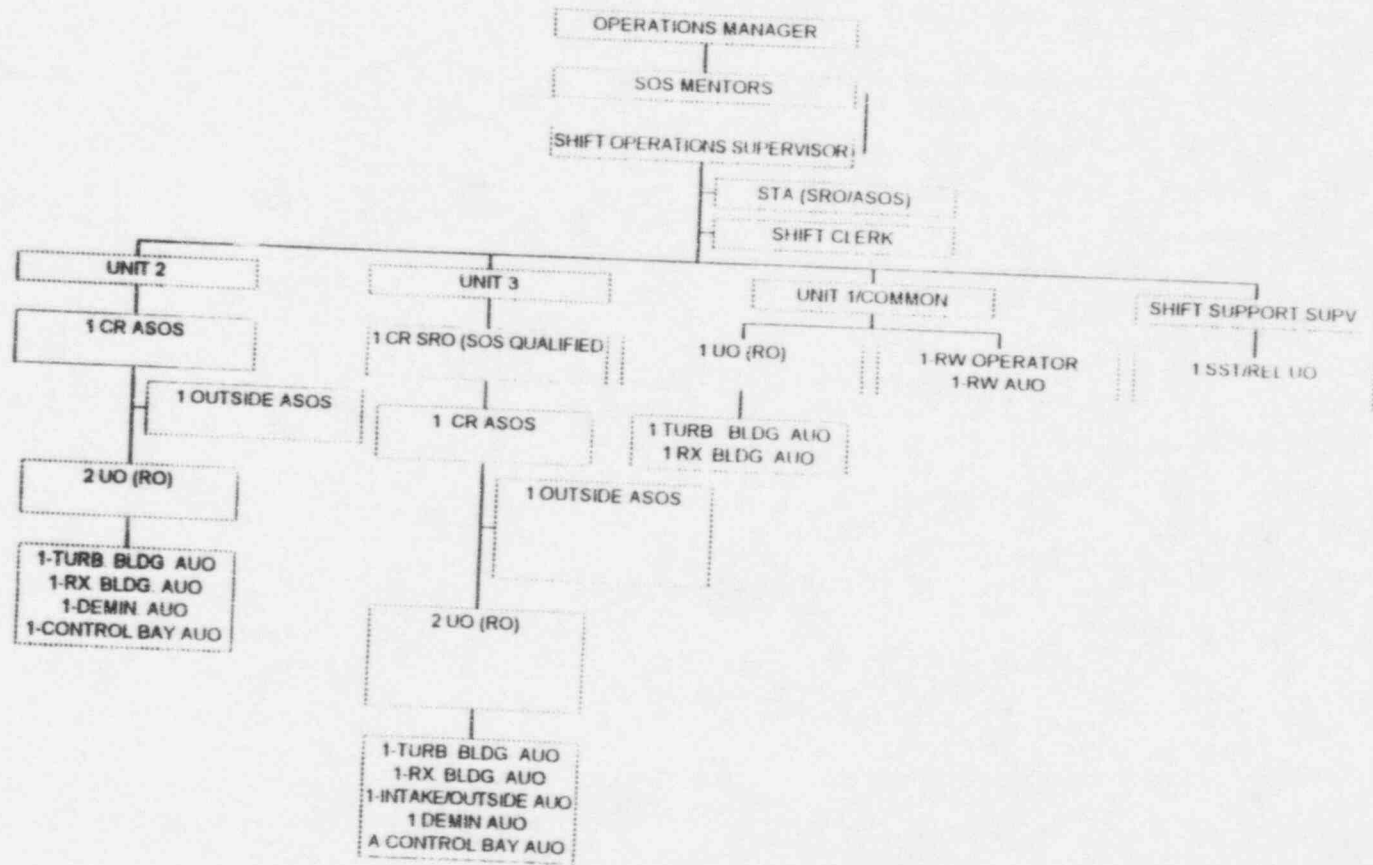


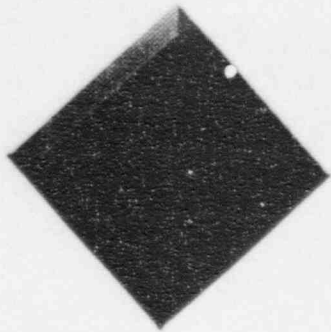
# UNIT 3 CURRENT ORGANIZATIONAL CHART



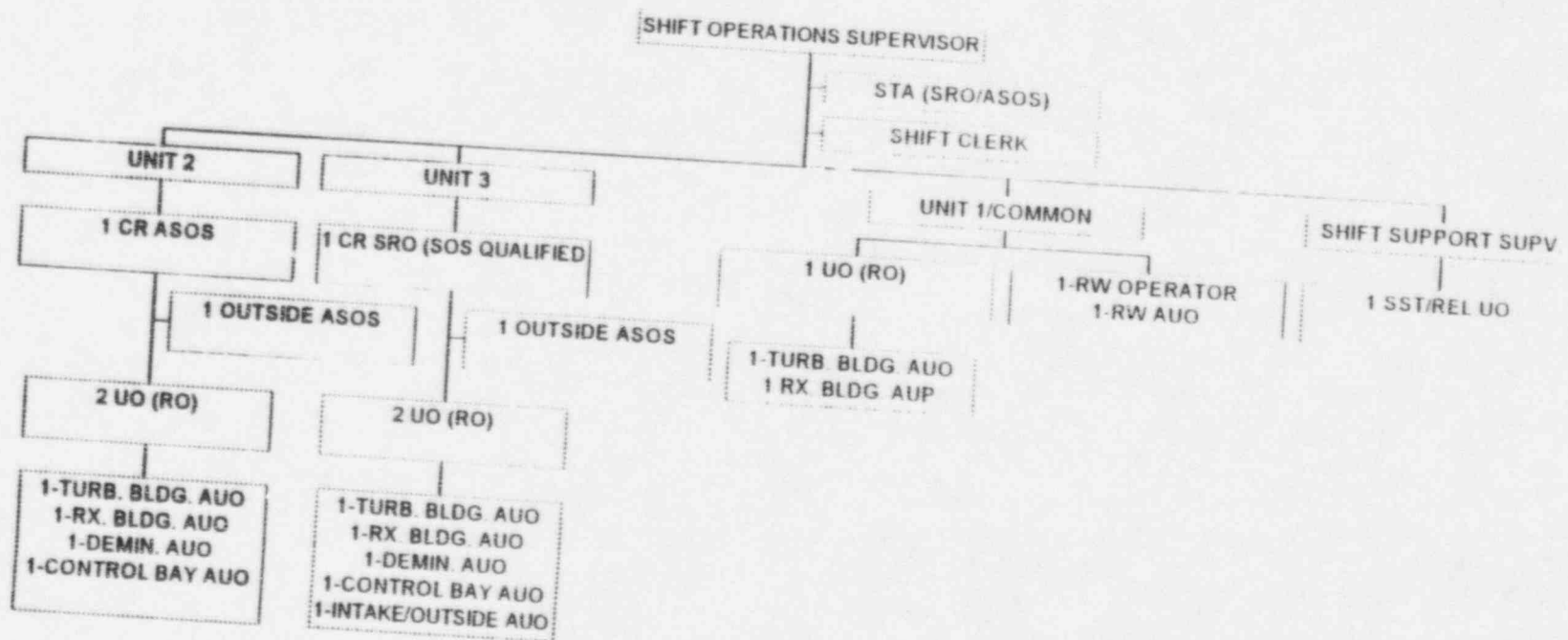


# UNIT 3 RESTART ORGANIZATIONAL CHART

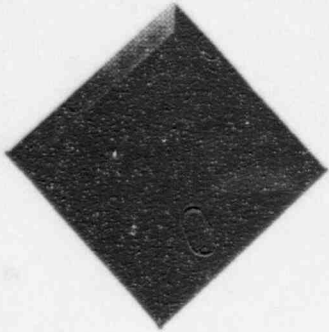




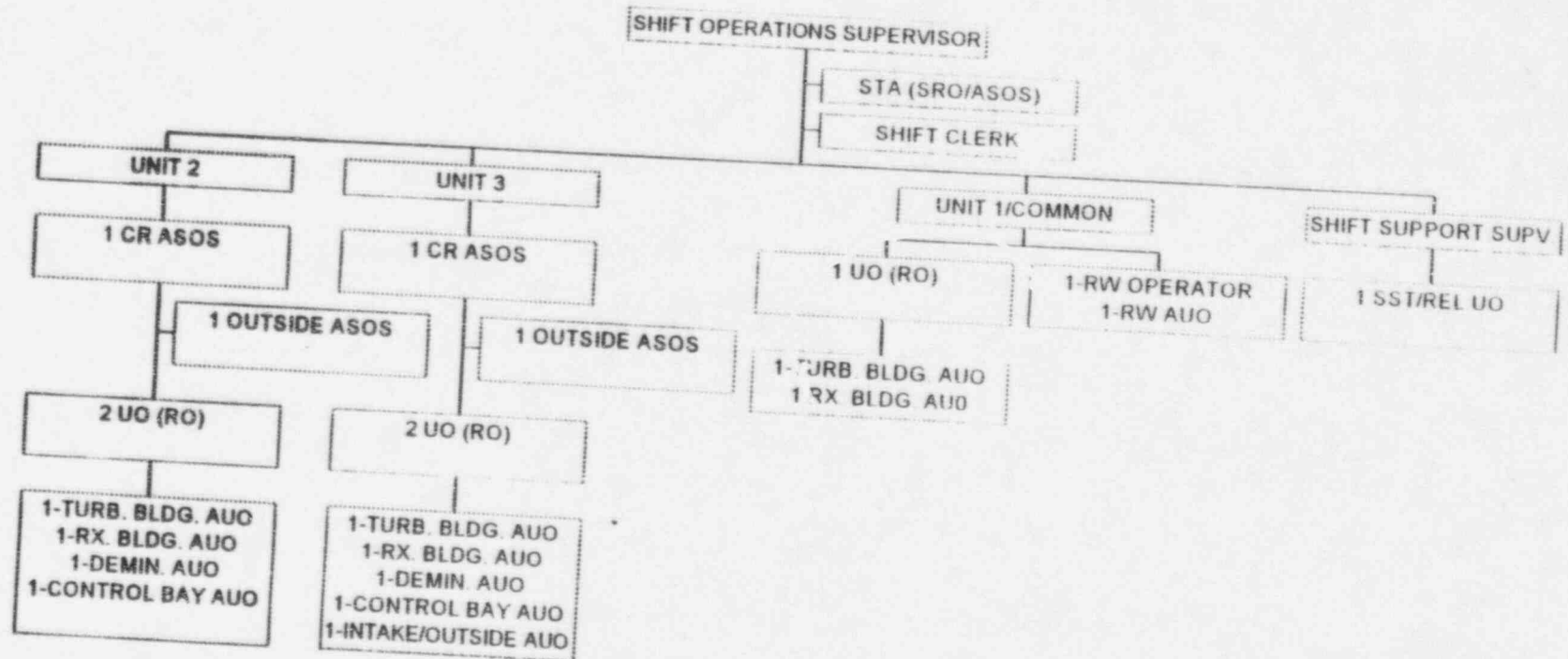
# POST RESTART ORGANIZATIONAL CHART

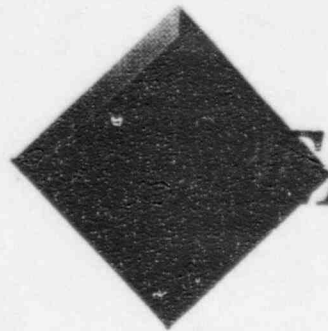






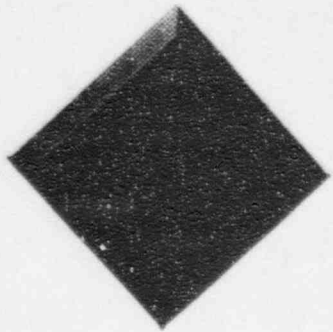
# LONG RANGE ONSHIFT ORGANIZATIONAL CHART





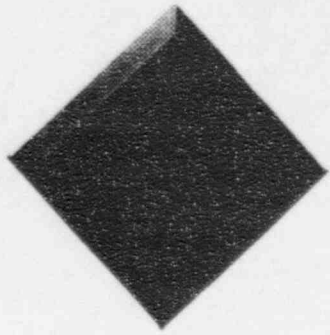
# ***PERSONNEL DEVELOPMENT***

- ❖ EVALUATED SOS AND ASOS POSITIONS IDENTIFYING OPPORTUNITIES FOR IMPROVEMENT
- ❖ ESTABLISHED EXPECTATIONS FOR DUAL UNIT OPERATION
- ❖ DEVELOPED SHIFT COMMUNICATIONS EXPECTATIONS
  - ASOS-SOS
  - UNIT-UNIT
- ❖ ESTABLISHED A MENTORING PROGRAM



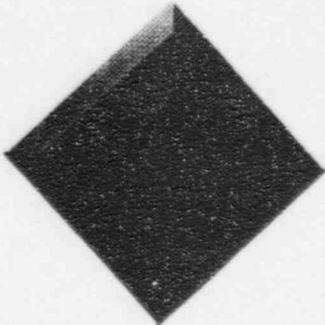
# ***SOS IMPROVEMENT INITIATIVES***

- ❖ SENIOR SRO PLACED IN UNIT 3 CONTROL ROOM JUNE 95
- ❖ SOS WORK STATION ESTABLISHED IN UNIT 3 CONTROL ROOM AUGUST 95
- ❖ SOS MONTHLY MEETING TO DISCUSS OPERATING ISSUES
- ❖ SOS QUARTERLY OFFSITE MEETING TO DISCUSS OPERATING ISSUES
- ❖ SENSITIVITY TO DECAY HEAT IN PLACE
- ❖ IMPROVE SENSITIVITY TO LOW LEVEL EVENTS
- ❖ EMPHASIZE STA<sup>2</sup>R WITH PEOPLE
- ❖ LOWERED THE THRESHOLD FOR PRE-JOB BRIEFINGS
- ❖ ENFORCE PROCEDURE USE
- ❖ AWARENESS OF SCHEDULE PRESSURE VS. PROCEDURAL COMPLIANCE
- ❖ CONTINUE TO DEVELOP ASOS POSITION EXPECTATIONS
- ❖ SPEND MORE TIME IN THE PLANT OBSERVING ACTIVITIES



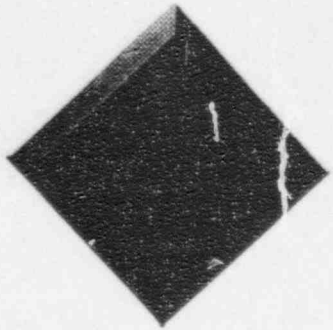
# ***ASOS IMPROVEMENT INITIATIVES***

- ❖ ASOS MONTHLY MEETING TO DISCUSS OPERATING ISSUES
- ❖ ENFORCING CONTROL ROOM FORMALITY
- ❖ ASOS MANAGEMENT EXPECTATIONS FOR DUAL UNIT OPERATIONS
- ❖ DEVELOP UO AND AUO MANAGEMENT EXPECTATIONS



# ***OPERATIONS MANAGER EXPECTATIONS OF SOS FOR DUAL UNIT OPERATIONS***

- ❖ MAINTAIN AN AWARENESS AND STATUS OF BOTH UNITS - KEEP THE BIG PICTURE
- ❖ ENSURE YOU KEEP THE UNIT ASOSs AWARE OF YOUR EXPECTATIONS FOR THE SHIFT
- ❖ FOR SITUATIONS WHERE BOTH UNITS HAVE PROBLEMS, YOUR PRIORITY IS THE UNIT MOST LIKELY TO AFFECT THE HEALTH AND SAFETY OF THE PUBLIC
- ❖ EXPECT AND DEMAND YOUR PEOPLE ALWAYS CONSIDER AND UNDERSTAND THE IMPACT OF THEIR ACTIONS ON THE OTHER UNIT



# ***OPERATIONS MANAGER EXPECTATIONS OF ASOS***

- ❖ CONTROL ROOM DEMEANOR AND PROFESSIONALISM
- ❖ CONTROL OF UO/AUO TURNOVERS - UNIT 1 ONLY HAS CONTROL BUILDING AUO IN CONTROL ROOM DURING TURNOVER TIME
- ❖ CONTROL ROOM HOUSEKEEPING
- ❖ ENFORCE CONTROL ROOM STANDARDS
  - ONE OPERATOR ALWAYS FACING THE CONTROL PANELS
  - MINIMIZE CONTROL ROOM NON-WORK RELATED CONVERSATIONS
  - ENSURE UOs MAINTAIN BOARD AWARENESS
  - KEEP UNNECESSARY PERSONNEL OUT OF THE CONTROL ROOM
  - ENSURE BOTH UOs PERFORM BOARD WALKDOWN WITH ONSHIFT UOs
  - BOX ASOS WEAR TIE AT ALL TIMES ON ALL SHIFTS AND MEET OTHER DRESS REQUIREMENTS
  - ENCOURAGE UOs TO MEET THE DRESS REQUIREMENTS
  - ENSURE PROPER COMMUNICATIONS TECHNIQUES USED
  - PROMPT ALARM RESPONSE
  - FOLLOW THROUGH ON ABNORMAL CONDITIONS
  - ENSURE PROCEDURE USAGE EVEN FOR ROUTINE EVOLUTIONS



# ***MANAGEMENT EXPECTATIONS OF UNIT OPERATOR***

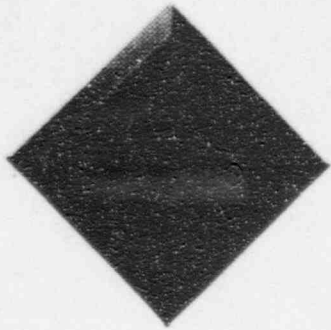
- ❖ MAINTAIN CONTROL ROOM DEMEANOR AND PROFESSIONALISM IN ACCORDANCE WITH OPERATIONS PROFESSIONAL CODE
- ❖ ENSURE PROPER CONTROL ROOM HOUSEKEEPING FOR CONTROL BOARDS, PANELS, AND OPERATOR DESKTOPS
- ❖ MAINTAIN AWARENESS OF WORK ACTIVITIES AFFECTING YOUR UNIT
- ❖ KEEP ASOS INFORMED OF CHANGING OR DEGRADING PLANT CONDITIONS
- ❖ PERFORM IMMEDIATE ACTIONS AS SPECIFIED BY AOIs, AND WHEN TIME PERMITS, VERIFY PROCEDURALLY THOSE ACTIONS WERE COMPLETE AND ACCURATE
- ❖ ENSURE OTHER UNIT OPERATORS ARE INFORMED OF A CHANGE IN COMMON SYSTEM STATUS
- ❖ ONE UO ALWAYS FACING PANELS DURING POWER OPERATIONS
- ❖ BOTH UNIT OPERATORS PERFORM BOARD WALKDOWNS WITH ONSHIFT UO
- ❖ UOs WEAR COMPANY PROVIDED WORK UNIFORMS IN GOOD CONDITION
- ❖ ENSURE PROPER COMMUNICATIONS TECHNIQUES USED INCLUDING TWO WAY COMMUNICATIONS (ASOS-UO) AND (UO-AUO)
- ❖ CONSISTENTLY USE ALARM RESPONSE PROCEDURES.
- ❖ ENSURE PROCEDURE USAGE EVEN FOR ROUTINE EVOLUTIONS



# ***MANAGEMENT EXPECTATIONS OF ASSISTANT UNIT OPERATOR***

- ❖ **BE AWARE OF STATUS OF ALL SYSTEMS IN YOUR BUILDING OF RESPONSIBILITY**
- ❖ **AWARE OF ALL CLEARANCES PICKED UP OR PLACED IN YOUR BUILDING OF RESPONSIBILITY**
- ❖ **REPORT TO UO FOR OTHER WORK AFTER ROUTINE INSPECTIONS**
- ❖ **SHOW INITIATIVE IF YOU IDENTIFY A PROBLEM - CORRECT THE PROBLEM OR SUBMIT A WORK REQUEST**
- ❖ **FOLLOW UP ON ITEMS REPORTED TO THE UO**
- ❖ **MEET OPERATIONS DRESS CODE**
- ❖ **CARRY RADIO AT ALL TIMES**
- ❖ **INFORM CONTROL ROOM PRIOR TO LOCAL PANEL TEST OR EXPECTED ALARM FROM PLANT EVOLUTION**
- ❖ **ELIMINATE NON-WORK RELATED READING MATERIAL**
- ❖ **TAKE OWNERSHIP OF PLANT AND HOUSEKEEPING REQUIREMENTS**

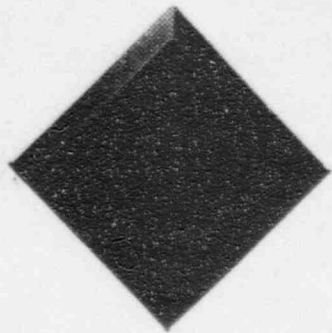




# ***COMMUNICATIONS***

## ***ASOS-SOS***

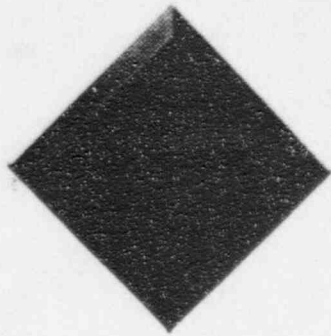
- ❖ ENTRY INTO / EXIT FROM LCOs
- ❖ DELAYS OR PROBLEMS WITH SCHEDULED WORK ACTIVITIES
- ❖ COMPLETION OF PLAN-OF-THE-DAY SCHEDULED ITEMS
- ❖ ANY TEST DEFICIENCIES ON SI ACCEPTANCE CRITERIA
- ❖ ANY EQUIPMENT PROBLEMS AFFECTING YOUR UNIT OR THE OTHER UNIT
- ❖ COMPLETION OF DAILY CHECKS & OPAs FOR YOUR SHIFT
- ❖ ANY CHANGE IN UNIT CONDITIONS
- ❖ INITIATION OF ANY LEVEL 2 WORK REQUESTS
- ❖ ANY PERSONNEL OR MANNING ISSUES
- ❖ INITIATION AND COMPLETION OF ANY HIGH RISK ACTIVITIES
- ❖ PERFORMANCE OF ANY PRE-JOB BRIEFINGS
- ❖ PERFORMANCE OF ANY SWITCHING ORDERS OR REQUEST FROM LOAD DISPATCHER
- ❖ ENTRY OR EXIT OF ANY APPENDIX R LCOs
- ❖ ENTRY OR EXIT OF ANY OFFSITE DOSE CALCULATION MANUAL LCOs
- ❖ COMPLETION/STATUS OF SIs SCHEDULED FOR YOUR SHIFT



# ***COMMUNICATIONS***


## ***UNIT-UNIT***

- ◆ THE LOADING AND UNLOADING OF ANY DIESEL GENERATOR
- ◆ STARTING OR STOPPING OF ANY RHRSW OR EECW PUMPS
- ◆ PERFORMANCE OF SHIFTLY TAP CHANGER CHECKS
- ◆ STARTING OR STOPPING OF CREVS OR SBT
- ◆ TRANSFER OF ANY RPS BUS ON ANY UNIT
- ◆ CHANGE IN THE STATUS OF THE SPARE RBCCW PUMP OR HEAT EXCHANGER
- ◆ STARTING OR STOPPING OF A HIGH PRESSURE FIRE PUMP
- ◆ CHANGES FROM NORMAL ALIGNMENT FOR THE UNIT PREFERRED OR I&C A OR B 120 VAC SYSTEMS
- ◆ PLACING IN SERVICE THE SPARE 250 VOLT UNIT BATTERY CHARGER OR SHUTDOWN BOARD BATTERY CHARGER
- ◆ CHANGES IN THE STATUS/ALIGNMENT OF CONTROL AIR COMPRESSOR AND DRYERS
- ◆ CHANGES IN THE STATUS OF SERVICE AIR COMPRESSORS
- ◆ CHANGES IN THE STATUS OF THE OFF-GAS/RECOMBINER ROOM CHILLERS
- ◆ CHANGES IN THE REACTOR BUILDING OR REFUEL FLOOR VENTILATION LINE-UPS
- ◆ CHANGES IN THE RAW COOLING WATER ALIGNMENTS
- ◆ CHANGES IN THE N2 SYSTEM ALIGNMENTS
- ◆ CHANGES IN THE CAD SYSTEM ALIGNMENTS
- ◆ CHANGES IN THE CO2 SYSTEM ALIGNMENTS



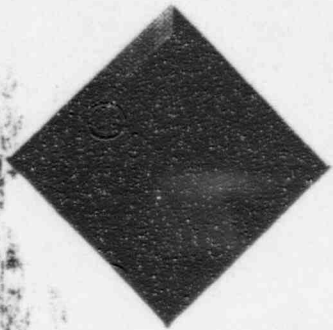
# ***OPERATIONS HUMAN PERFORMANCE KEY INITIATIVES***

- ❖ REVIEW CORRECTIVE ACTION PROGRAM AND JOB PERFORMANCE DATA FOR THE LAST YEAR AND DETERMINE WHICH PROCEDURES PRESENTED THE MOST PROBLEMS AND THE SPECIFIC ISSUES INVOLVED
- ❖ SURVEY OR INTERVIEW EMPLOYEES TO DETERMINE WHICH PROCEDURES HAVE CAUSED THEM THE MOST TROUBLE IDENTIFYING SPECIFIC ISSUES
- ❖ IDENTIFY A SMALL NUMBER (TEN OR FEWER) OF PROCEDURES THAT CAUSE THE MOST TROUBLE
- ❖ HAVE SUBJECT MATTER EXPERTS REVIEW PROCEDURES
- ❖ ESTABLISH AND MAINTAIN AN INTERNAL TRACKING MECHANISM THAT WILL TREND PROCEDURE ADHERENCE
- ❖ CLEAR MANAGEMENT AND SUPERVISORY EXPECTATIONS WILL BE INCLUDED FOR SIMULATOR OBSERVATIONS
- ❖ ENHANCE THE OPERATIONS SOS EVALUATION PROCESS FOR EVALUATING AUO PERFORMANCE
- ❖ RE-EVALUATE THE HOUSEKEEPING AND CLEANLINESS PROCESS TO ENSURE THAT RESPONSIBLE SUPERVISORS AND MANAGERS MEET MANAGEMENT EXPECTATIONS



# ***TRAINING TO SUPPORT DUAL UNIT OPERATION***

- ❖ UNIT DIFFERENCES
- ❖ ON-LINE MAINTENANCE
- ❖ MAINTENANCE RULE
- ❖ PROBABILISTIC SAFETY ASSESSMENT (PSA)
- ❖ DUAL UNIT INDUSTRY EXPERIENCE
- ❖ UNIT INTERFACES
- ❖ DUAL UNIT SCENARIOS
- ❖ CHANGES
- ❖ SSI EXERCISES
- ❖ EOI
- ❖ CONDENSATE DEMINERALIZERS
- ❖ TECHNICAL SPECIFICATION DIFFERENCES BETWEEN UNIT 2 AND UNIT 3
- ❖ UNIT 3 MODIFICATIONS
- ❖ ORAM
- ❖ STATION BLACKOUT
- ❖ DUAL UNIT SENSITIVITY
- ❖ FUEL RECEIPT



## ***DUAL UNIT SCENARIOS***

- ❖ SIMULATOR TRAINING INCLUDES COMBINED CREW SCENARIOS TO TRAIN FOR CRITICAL PLANT EVOLUTIONS AND POWER ASCENSION
- ❖ SOS IS CHALLENGED WITH SCENARIOS WITH COMMON SYSTEM FAILURES OR SYSTEMS UNAVAILABLE BECAUSE OF TRANSIENT CONDITIONS ON THE OTHER UNIT
- ❖ SIMULATOR TRAINING PUTS THE SOS IN SITUATIONS WHERE HE WILL BE FORCED TO MAKE DECISIONS FOR BOTH UNITS, COMMUNICATE WITH UNIT 3, AND EVALUATE EFFECTS OF ACTIONS ON UNITS 2 AND 3



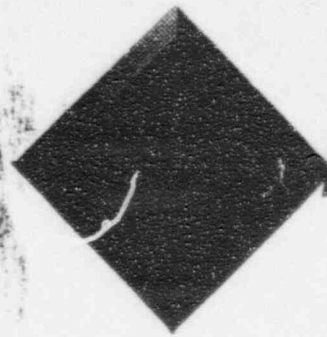
# ***SITE ORGANIZATION COMMUNICATIONS***

- ❖ PERIODIC OPERATIONS AND MAINTENANCE MEETINGS (INCLUDING GENERAL FOREMAN)
- ❖ MEETINGS SCHEDULED PRIOR TO MAJOR UNIT EVOLUTIONS
- ❖ OPERATIONS MANAGER AND SUPERINTENDENT MEET WEEKLY WITH THE NRC RESIDENTS



# ***MULTI-UNIT CONTROL ROOM COMMUNICATION***

- ❖ VIDEO CAMERAS ARE BEING INSTALLED IN THE UNIT 1/2 AND UNIT 3 CONTROL ROOMS TO ALLOW THE SOS TO VIEW ACTIVITIES IN THE CONTROL ROOM HE IS NOT PHYSICALLY OCCUPYING
- ❖ AN INTER-UNIT INTERCOM IS BEING INSTALLED BETWEEN THE UNIT 1, UNIT 2 AND UNIT 3 CONTROL ROOMS TO ALLOW UNINTERRUPTED COMMUNICATION BETWEEN THE CONTROL ROOMS

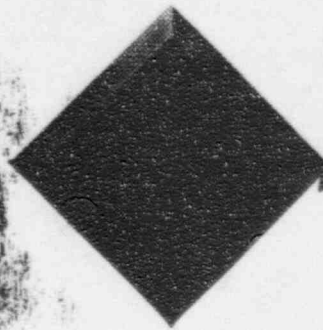


# ***OPERATIONS SELF-ASSESSMENT PROCESS IMPROVEMENT***

## **PROCESS REQUIREMENTS**

- ❖ IDENTIFY PROBLEM AREAS AND ADVERSE TRENDS
- ❖ PROVIDE A MECHANISM FOR DEVELOPING CORRECTIVE ACTIONS, TRACKING THEM TO COMPLETION, AND ASSESSING THEIR EFFECTIVENESS
- ❖ COMPARE EXTERNAL REPORTS TO INTERNAL RESULTS AND EVALUATE THE DIFFERENCES FOR PROCESS IMPROVEMENT





***OPERATIONS  
SELF-ASSESSMENT PROCESS  
IMPROVEMENT***

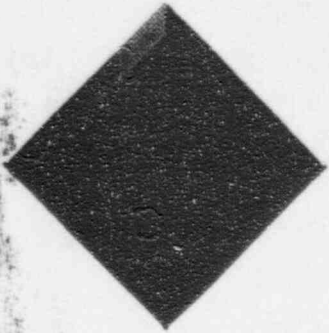
**MONITORING METHODS**

- ❖ MANAGEMENT TOURS
- ❖ MANAGEMENT AND SUPERVISOR OBSERVATIONS
- ❖ QUALITY INDICATORS
- ❖ CORRECTIVE ACTION PROGRAM
- ❖ SPECIAL ASSESSMENTS



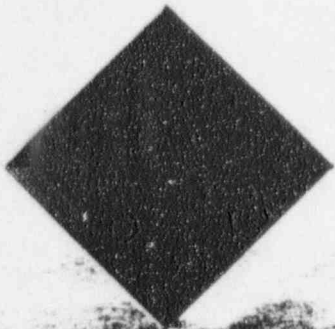
# *UNIT 2 & UNIT 3 INTERFACE*

- ❖ EACH UNIT HAS A DISTINCTIVE EQUIPMENT AND AREA COLOR SCHEME. COMMON EQUIPMENT IS WHITE, UNIT 1 IS GREEN, UNIT 2 IS MARIGOLD, AND UNIT 3 IS LIGHT BLUE. UNIT 3 WILL BE THE FIRST UNIT TO USE AREA COLOR CODING.
- ❖ ALL ELEVATOR EXITS HAVE BEEN PAINTED WITH DIRECTIONAL ARROWS INDICATING THE UNITS
- ❖ SENSITIVE PLANT AREAS HAVE BEEN MARKED WITH LARGE HIGHLY VISIBLE SIGNS DENOTING THE UNIT NUMBER
- ❖ ALARMS THAT AFFECT UNIT 2 AND 3 OPERATION ARE FLAGGED WITH ANNUNCIATOR FRAMES THAT HAVE A BLUE SEMI-TRANSPARENT BORDER. OPERATORS ARE TRAINED THAT THESE ALARMS COULD IMPACT UNIT 2 OR UNIT 3 OPERATION AND THEY RESPOND ACCORDINGLY



# ***LABELING***

- ❖ UNIT 3 LABELING COMPLETE EXCEPT FOR DCNs
- ❖ UNIT 3 LABELING SAME AS UNIT 2
- ❖ PROCEDURES COLOR CODED FOR UNIT IDENTIFICATION
- ❖ LABELS HAVE UNIT IDENTIFIER
- ❖ ENTRANCE TO ROOMS CLEARLY MARKED TO IDENTIFY ROOMS



# *CONCLUSIONS*