

FEB 14 1994

MEMORANDUM FOR: Brian K. Grimes, Director
 Division of Operating Reactor Support

FROM: Alfred E. Chaffee, Chief
 Events Assessment Branch
 Division of Operating Reactor Support

SUBJECT: OPERATING REACTORS EVENTS BRIEFING
 FEBRUARY 9, 1994 - BRIEFING 94-06

On February 9, 1994, we conducted an Operating Reactors Events Briefing (94-06) to inform senior managers from offices of the Commission, EDO, AEOD, OE, NMSS, NRR, and regional offices of selected events that occurred since our last briefing on February 2, 1994. Enclosure 1 lists the attendees. Enclosure 2 presents the significant elements of the discussed events.

Enclosure 3 contains reactor scram statistics for the week ending February 6, 1994. One significant event was identified for input into the NRC Performance Indicator Program (Enclosure 4).

[original signed by]

Alfred E. Chaffee, Chief
 Events Assessment Branch
 Division of Operating
 Reactor Support

Enclosures: As stated

cc w/enclosures:
 See next page

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OTM-6-MEETINGS
X-ID&R-5-Facility Licenses

230087

003008

9403030020 940214
 PDR ORG NRRB
 PDR

RF 11

cc:

T. Murley, NRR (12G18)
F. Miraglia, NRR (12G18)
F. Gillespie, NRR (12G18)
Acting ADPR, NRR (12G18)
S. Varga, NRR (14E4)
J. Calvo, NRR (14A4)
G. Lainas, NRR (14H3)
J. Roe, NRR (13E4)
J. Zwolinski, NRR (13H24)
E. Adensam, NRR (13E4)
W. Russell, NRR (12G18)
M. Hodges (Acting), NRR (7D26)
A. Thadani, NRR (8E2)
S. Rosenberg, NRR (10E4)
C. Rossi, NRR (9A2)
B. Boger, NRR (10H3)
F. Congel, NRR (10E2)
D. Crutchfield, NRR (11H21)
W. Travers, NRR (11B19)
D. Coe, ACRS (P-315)
E. Jordan, AEOD (MN-3701)
G. Holahan, AEOD (MN-9112)
L. Spessard, AEOD (MN-3701)
K. Brockman, AEOD (MN-3206)
S. Rubin, AEOD (MN-5219)
M. Harper, AEOD (MN-9112)
W. Bateman, EDO (17G21)
F. Ingram, PA (2G5)
E. Beckjord, RES (NLS-007)
A. Bates, SECY (16G15)
T. Martin, Region I
R. Cooper, Region I
S. Ebnetter, Region II
E. Merschhoff, Region II
S. Vias, Region II
J. Martin, Region III
E. Greenman, Region III
L. Callan, Region IV
A. Beach, Region IV
K. Perkins, Region V
S. Richards, Region V

P. Erickson (ONDD)
S. Weiss (ONDD)
C. Patel (PDIII-2)
J. Dyer (PDIII-2)

bcc: Mr. Sam Newton, Manager
Events Analysis Department
Institute of Nuclear Power Operations
700 Galleria Parkway
Atlanta, GA 30339-5957



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

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A handwritten signature in cursive script, reading "Alfred E. Chaffee".

Alfred E. Chaffee, Chief
Events Assessment Branch
Division of Operating
Reactor Support

Enclosures: As stated

cc w/enclosures:
See next page

ENCLOSURE 1

LIST OF ATTENDEES

OPERATING REACTORS EVENTS FULL BRIEFING (94-06)

FEBRUARY 9, 1994

<u>NAME</u>	<u>OFFICE</u>	<u>NAME</u>	<u>OFFICE</u>
R. DENNIG	NRR	J. DYER	NRR
J. CARTER	NRR	M. LYNCH	NRR
K. GRAY	NRR	C. ROSSI	NRR
D. SKEEN	NRR	C. THOMAS	NRR
N. HUNEMULLER	NRR	S. WEISS	NRR
T. KOSHY	NRR	S. VARGA	NRR
C. GOODMAN	NRR	J. ROE	NRR
C. PATEL	NRR	C. GRIMES	NRR
S. ROSENBERG	NRR	J. BEALL	OE
J. COLACCINO	NRR	L. BELL	NMSS
M. SLOSSON	NRR	V. BENAROYA	AEOD
T. YAMADA	NRR	E. BAKER	OCM
M. MASNIK	NRR	C. PEDERSON	RIII
M. DAVIS	NRR	W. DEAN	OEDO

TELEPHONE ATTENDANCE
(AT ROLL CALL)

Regions

Region I
Region II
Region III
Region IV

Resident Inspectors

T. Taylor (Quad Cities)

IIT/AIT Team Leaders

Misc.

J. McCormick-Barger

**** NOTE - ROOM 8 B11 ****

OPERATING REACTORS EVENTS BRIEFING 94-06

**LOCATION: 8 B11, WHITE FLINT
WEDNESDAY, FEBRUARY 9, 1994 11:00 A.M.**

DRESDEN, UNIT 1

**COLD WEATHER IMPACT ON
DECOMMISSIONED REACTOR
FACILITY**

QUAD CITIES, UNIT 2

CONTROL ROD MISPOSITION

QUAD CITIES, UNIT 2

**EMERGENCY DIESEL GENERATOR
COOLING WATER PUMPS**

**PRESENTED BY: EVENTS ASSESSMENT BRANCH
DIVISION OF OPERATING REACTOR
SUPPORT, NRR**

DRESDEN UNIT 1
COLD WEATHER IMPACT ON DECOMMISSIONED REACTOR FACILITY
JANUARY 24, 1994

PROBLEM:

BREAKS IN THE SERVICE WATER SYSTEM WERE DISCOVERED AND APPROXIMATELY 55,000 GALLONS OF WATER WAS SPILLED TO THE CONTAINMENT. SUBSEQUENT INVESTIGATION BY LICENSEE IDENTIFIED THAT THE SPENT FUEL POOL TRANSFER SYSTEM LOCATED INSIDE CONTAINMENT WAS ALSO SUSCEPTIBLE TO FREEZING AND COULD HAVE RESULTED IN DRAINING THE SPENT FUEL POOL TO SEVERAL FEET BELOW TOP OF THE FUEL.

CAUSE:

INADEQUATE 50.59 REVIEW PRIOR TO REMOVING HEAT FROM CONTAINMENT AND SEVERE COLD WEATHER WHICH RESULTED IN WATER FILLED PIPING AND COMPONENTS TO FREEZE AND FAIL.

SAFETY SIGNIFICANCE:

FAILURE OF THE 42" FUEL TRANSFER TUBE COULD RAPIDLY DRAIN THE SPENT FUEL POOL TO A LEVEL SEVERAL FEET BELOW THE TOP OF THE FUEL BUNDLE. PRELIMINARY RADIOLOGICAL CONSEQUENCES ASSESSMENT INDICATES THAT DOSE RATES AT FUEL POOL RAIL WOULD HAVE BEEN ABOUT 2700R/HR AND 19 R/HR 100 YARDS FROM THE FUEL POOL (DISTANCE TO THE NRC RESIDENT'S OFFICE). HAD THE FUEL BECOME UNCOVERED, THIS EVENT MAY HAVE AFFECTED THE OPERATION OF UNITS 2 AND 3.

CONTACT: J. CARTER, NRR/DORS AIT: NO
J. McCORMICK-BARGER, RIII
REFERENCES: MORNING REPORT 1/27/94 SIGEVENT: TBD

DISCUSSION:

- DRESDEN UNIT 1 LAST OPERATED IN OCTOBER 1978; PLANT WAS SHUTDOWN FOR CHEMICAL DECON OF PRIMARY SYSTEM.
- FOLLOWING THREE MILE ISLAND, COST TO UPGRADE PLANT DROVE DECISION TO RETIRE PLANT.
- LICENSEE MADE INITIAL SUBMITTAL TO DECOMMISSION PLANT IN 1986.
- IN 1988, AN ENVIRONMENTAL REPORT SENT TO THE NRC ON DECOMMISSIONING STATED THAT THEY WOULD EVALUATE THE EFFECTS ON CONTAINMENT BUILDING IF NO HEATING WAS TO BE PROVIDED.
- DUE TO DETERIORATING CONDITIONS OF THE UNIT 1 HEATING BOILER, THE UNIT 1 HEATING SYSTEM WAS PERMANENTLY SHUTDOWN IN 1989.
- 1990 ENGINEERING STUDY PERFORMED TO ADDRESS EFFECTS OF NO HEAT ON CONTAINMENT SHELL AND SEVERAL SELECT SYSTEMS (ASSUMED OTHER SYSTEMS WERE DRAINED).
- 1992 DECOMMISSIONING PLAN STATED THAT STEAM HEAT TO THE CONTAINMENT CONTINUED.
- THE DECOMMISSIONING PLAN WAS APPROVED IN SEPTEMBER 1993
--NEW TECHNICAL SPECIFICATIONS WERE ISSUED
--FACILITY IS IN "SAFSTOR" MODE

- JANUARY 24, 1994, OPERATIONS DISCOVERED SERVICE WATER BREAKS IN OFF GAS FILTER BUILDING (CAUSED BY FREEZING) AND HAD TO SECURE SERVICE WATER TO ALL UNIT 1. UNIT 1 SERVICE WATER IS NOT ASSOCIATED WITH UNITS 2 OR 3.
- JANUARY 25, 1994, DURING A ROUTINE MONTHLY SURVEILLANCE, RAD TECHS DISCOVERED ABOUT TWO FEET OF WATER IN CONTAINMENT--DUE TO SERVICE WATER BREAKS IN CONTAINMENT CAUSED BY FREEZING (NOTE SOURCE OF WATER WAS PREVIOUSLY SECURED ON THE 24TH WHICH SUBSTANTIALLY REDUCE THE MAGNITUDE OF THE SPILL).
- THE SLIGHTLY CONTAMINATED WATER ($10E-4$ UCI/CC) WAS PUMPED OUT OF CONTAINMENT TO TANKS FOR LATER PROCESSING.
- DURING INVESTIGATION, LICENSEE DISCOVERED SEVERAL DAMAGED COMPONENTS AND SYSTEMS DUE TO FREEZING WATER LOCATED IN LOW SPOTS OF SYSTEMS; HOWEVER, NO REQUIRED EQUIPMENT WAS ADVERSELY DAMAGED.
- LICENSEE DISCOVERED THAT SPENT FUEL TRANSFER SYSTEM INSIDE CONTAINMENT WAS SUSCEPTIBLE TO FREEZING AND IF IT HAD FAILED, COULD HAVE DRAINED SPENT FUEL POOL TO TWO TO THREE FEET BELOW ACTIVE FUEL.
- LICENSEE IMMEDIATELY INSTALLED SPENT FUEL POOL GATES TO ISOLATE 660 FUEL BUNDLES IN SPENT FUEL POOL FROM SPENT FUEL TRANSFER SYSTEM.
- 23 FUEL BUNDLES REMAINED AT BOTTOM OF SPENT FUEL TRANSFER POOL IN A RELATIVELY SAFE CONDITION.

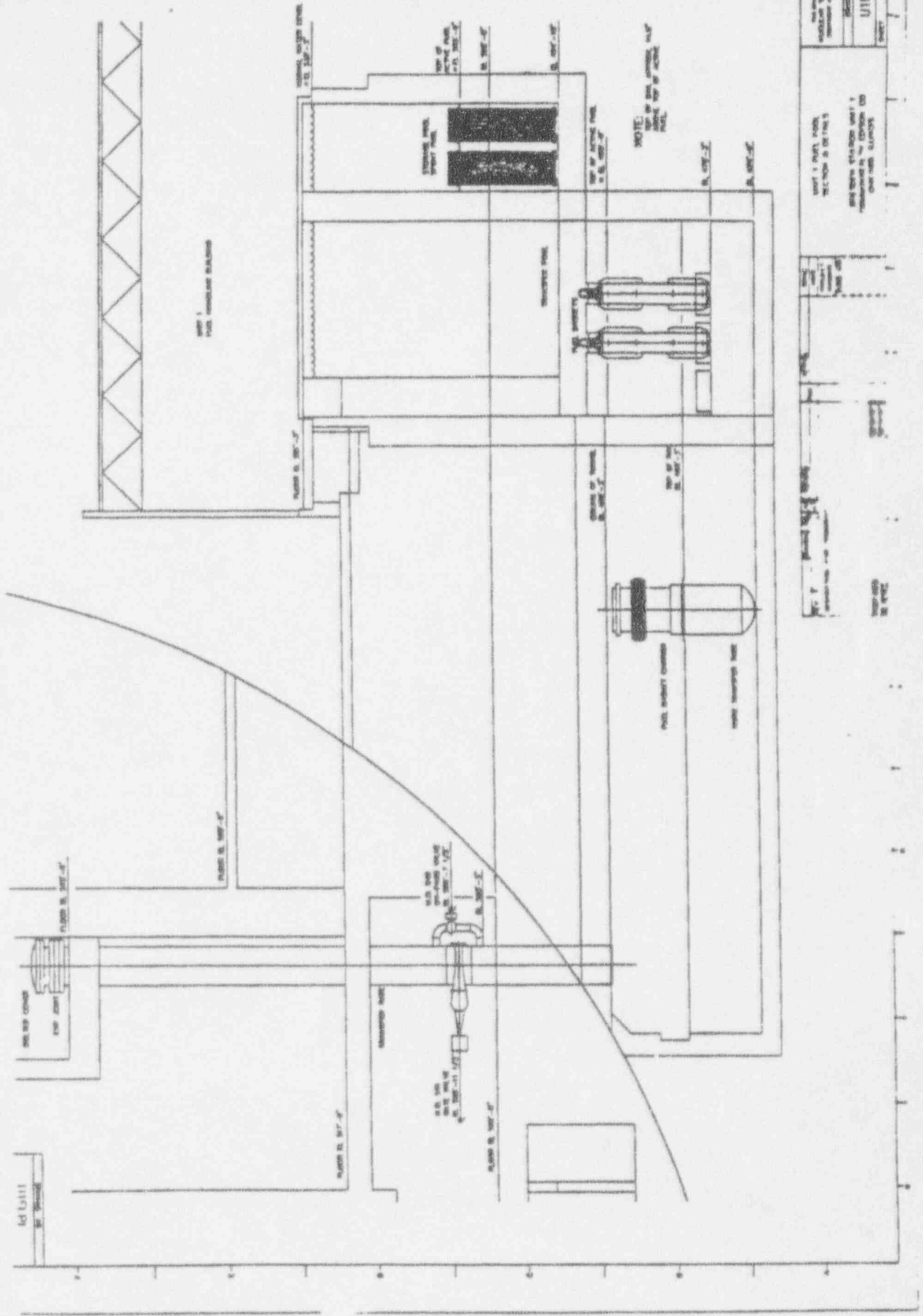
- LICENSEE INSTALLED LOCAL REDUNDANT SPACE HEATERS NEXT TO FUEL TRANSFER TUBE ISOLATION AND BYPASS VALVES LOCATED IN CONTAINMENT--NO DAMAGE TO SYSTEM HAS BEEN OBSERVED TO DATE (PIPE TEMPERATURE UPSTREAM OF VALVES WAS 62F AND DOWNSTREAM WAS 34F AT TIME FLOODING WAS DISCOVERED; HOWEVER, BY THAT TIME, OUTSIDE TEMPERATURES HAD RISEN SUBSTANTIALLY).
- LICENSEE PRELIMINARY EVALUATION INDICATES THAT THE MOST LIKELY FAILURE WOULD HAVE BEEN TO THE EIGHT INCH BYPASS LINE AND FUEL POOL LEVEL DROP WOULD HAVE TAKEN 40 MINUTES.
- LICENSEE FORMED A LARGE TEAM TO INVESTIGATE THIS EVENT AND IS HEADED BY AN EX-DRESDEN PLANT MANAGER FROM THE CORPORATE OFFICE--THEY PROVIDED A DETAILED BRIEFING TO THE NRC TEAM ON FIRST DAY AT SITE.

FOLLOWUP

- A CONFIRMATORY ACTION LETTER WAS ISSUED ON FEBRUARY 1, 1994, WHICH DOCUMENTED THE FOLLOWING LICENSEE ACTIONS:
 - PROVIDE BACKUP HEATERS AND POWER SUPPLY FOR TRANSFER TUBE FREEZE PROTECTION
 - NOTIFY NRC PRIOR TO REMOVING FUEL POOL TRANSFER GATES
 - PERFORM AN ASSESSMENT OF RADIOLOGICAL CONSEQUENCES OF INADVERTENT FUEL POOL WATER LOSS
 - EVALUATE CONDITION OF FUEL TRANSFER TUBE

- PERFORM A FUEL INVENTORY
- PROVIDE NRC WITH FUEL MOVEMENT PLAN IF NECESSARY
- WALKDOWN ALL SYSTEMS TO ASSURE NONE CONTAIN A SOURCE OF WATER IN CONTAINMENT
- PERFORM A ROOT CAUSE EVALUATION OF REMOVING HEATING SYSTEM IN CONTAINMENT
- A SPECIAL INSPECTION TEAM HAS BEEN SENT TO THE SITE:
 - CHARTER WAS PREPARED AND ISSUED FEBRUARY 4, 1994, AND CONTAINED THE FOLLOWING MAJOR ACTIVITIES:
 - ASSESS ADEQUACY OF LICENSEE'S CHANGES TO FACILITY PER 50.59
 - ASSESS CURRENT CONDITION OF FUEL TRANSFER SYSTEM
 - ASSESS ADEQUACY OF LICENSEE'S EP PROGRAM FOR THIS EVENT
 - ASSESS ADEQUACY OF LICENSEE PAST AND PRESENT OVERSIGHT OF DRESDEN 1
 - REVIEW LICENSEE'S PLANS TO DISPOSE OF THE CONTAMINATED WATER
 - MAKE GENERIC LESSONS LEARNED RECOMMENDATIONS FOR NRC LICENSING AND INSPECTION PROGRAMS FOR DECOMMISSIONED PLANTS
 - THE TEAM CONSIST OF STAFF FROM REGION III, NRR, AND NMSS

DRESDEN 1
BRIEFING 94-06



NOTE:
TOP OF ALL STRUCTURE HALF
SCALE UP TO 1/4\"/>

NO. OF SHEETS	1
TOTAL SHEETS	1
DATE	10/1/54
BY	UPL

UNIT 1 FUEL PUMP
SECTION 2 (10/1/54)

ALL DIMENSIONS SHOWN UNLESS
OTHERWISE NOTED TO CONTRARY
DO NOT SCALE

NO. OF SHEETS	1
TOTAL SHEETS	1
DATE	10/1/54
BY	UPL

QUAD CITIES, UNIT 2
CONTROL ROD MISPOSITION
JANUARY 27, 1994

PROBLEM

OPERATOR MISTAKENLY WITHDREW MORE THAN ONE CONTROL ROD DURING SCRAM TIME TESTING.

CAUSE

MISUNDERSTANDING AMONG CONTROL ROOM PERSONNEL PERFORMING TEST.

SAFETY SIGNIFICANCE

PERSONNEL ERRORS DURING ROUTINE ACTIVITIES COULD RESULT IN UNDUE CHALLENGES TO SAFETY SYSTEMS.

DISCUSSION

- UNIT 2 WAS AT 20-25% POWER AND HOLDING SINCE THE PREVIOUS DAY FOR CONTROL ROD SCRAM TIME TESTING. TESTING PROCEEDED THROUGHOUT THE MORNING WITH PERSONNEL POSITIONED AS SHOWN IN FIGURE 1.
- 1:30PM - THE TEST DIRECTOR LEFT TO FILL OUT PAPER WORK. NEW TEST DIRECTOR (QNE1) HAD NOT PERFORMED THIS FUNCTION BEFORE. QUALIFIED NUCLEAR ENGINEER (QNE2) WHO HAD BEEN ACTING AS THE ROD MANEUVER VERIFIER BECAME THE SCRAM TIME VERIFIER. IT WAS NOT CLEAR WHO WAS ROD MANEUVER VERIFIER (FIGURE 2).

CONTACT: D. SKEEN, NRR/DORS
REFERENCE: REGIONAL PHONE CALL

AIT: TBD
SIGEVENT: TBD

- 1:45PM - THE TEST DIRECTOR NOTED THE NEXT ROD TO BE TESTED (M-8) WAS AT FULL IN POSITION (00). PER PROCEDURE, THE NSO WITHDREW THE ROD TO THE FULL OUT POSITION (48) AND THE ROD WAS SCRAMMED.
- FOLLOWING THE SCRAM, THE ROD REMAINED AT THE OVERTRAVEL POSITION (--).
- QNE2 VERIFIED SCRAM TIME AND THE TEST DIRECTOR NOTED ON THE TEST SHEET THAT ROD M-8 TESTED SAT AND WAS AT POSITION 00.
- THE NSO ASKED IF ROD M-8 SHOULD BE WITHDRAWN, BELIEVING IT HAD TO BE RETESTED. NEITHER THE TEST DIRECTOR NOR QNE2 RESPONDED.
- QNE2 REMOVED THE COMPLETED PAGE OF THE SPECIAL ROD MANEUVER SHEET FROM THE CONTROL PANEL. HE THEN PLACED A NEW SHEET ON THE PANEL.
- THE NSO ASKED TO WITHDRAW ROD M-8, BELIEVING A SPECIAL MANEUVER SHEET HAD BEEN WRITTEN.
- 1:47PM - THE TEST DIRECTOR, ALSO BELIEVING QNE2 HAD WRITTEN A SPECIAL MANEUVER SHEET, ACKNOWLEDGED THE NSO'S REQUEST AND THE ROD WAS WITHDRAWN WITHOUT VERIFICATION OF A COMPLETED SPECIAL MANEUVER SHEET.
- THE NSO THEN LEFT HIS STATION AND ACKNOWLEDGED A FEEDWATER HEATER ALARM ON ANOTHER PANEL DURING A PAUSE IN THE SCRAM TESTING.

- THE TEST DIRECTOR INSTRUCTED THE NSO TO WITHDRAW THE NEXT ROD TO BE TESTED (M-6).
- AS THE NSO WITHDREW THE ROD HE STOPPED AT POSITION 12 AND ASKED WHAT THE EXPECTED POWER INCREASE SHOULD BE FROM WITHDRAWAL OF THIS ROD. ONE2 REVIEWED THE NUCLEAR INDICATION AND OK'D WITHDRAWING THE ROD TO POSITION 48.
- AN OPERATOR NOT INVOLVED WITH THE TESTING NOTICED THAT THE POWER INCREASE FROM THE ROD WITHDRAWAL WAS GREATER THAN EXPECTED. AT THAT TIME THE TEST DIRECTOR IDENTIFIED THAT ROD M-8 WAS NOT IN THE CORRECT FULL IN POSITION.
- THE SHIFT SUPERVISOR WAS NOTIFIED AND THE TWO CONTROL RODS WERE RETURNED TO NORMAL POSITIONS PER PROCEDURE AND ALL CONTROL ROD MANEUVERS WERE THEN HALTED PENDING INVESTIGATION.
- LICENSEE INVESTIGATION IDENTIFIED THE FOLLOWING FINDINGS:
 - ROD M-8 WAS REPOSITIONED WITHOUT WRITTEN INSTRUCTIONS.
 - THE INDIVIDUAL RESPONSIBLE FOR SECOND VERIFICATION OF ROD MANEUVERS WAS NOT CLEARLY IDENTIFIED.
 - THE TEST DIRECTOR DID NOT HAVE A CLEAR VIEW OF THE SPECIAL MANEUVER SHEET AND SHOULD NOT HAVE BEEN PROVIDING DIRECTION AND CONFIRMATION OF CONTROL ROD MANEUVERS.

FOLLOWUP

- THE LICENSEE FORMED A SPECIAL TEAM TO INVESTIGATE THE EVENT. PERSONNEL INVOLVED WERE REMOVED FROM SHIFT AND GIVEN REMEDIAL TRAINING.

- AN NRC SPECIAL TEAM INSPECTION CONSISTING OF REGION III PERSONNEL AND A MEMBER OF HQ HUMAN FACTORS BRANCH WAS DISPATCHED TO THE SITE.

- THE LICENSEE HAS FORMED A SEPARATE TEAM TO INVESTIGATE PERSONNEL ERRORS FOLLOWING AN UNRELATED EVENT THAT RESULTED IN A STAND DOWN ORDER BEING ISSUED BY PLANT MANAGEMENT.

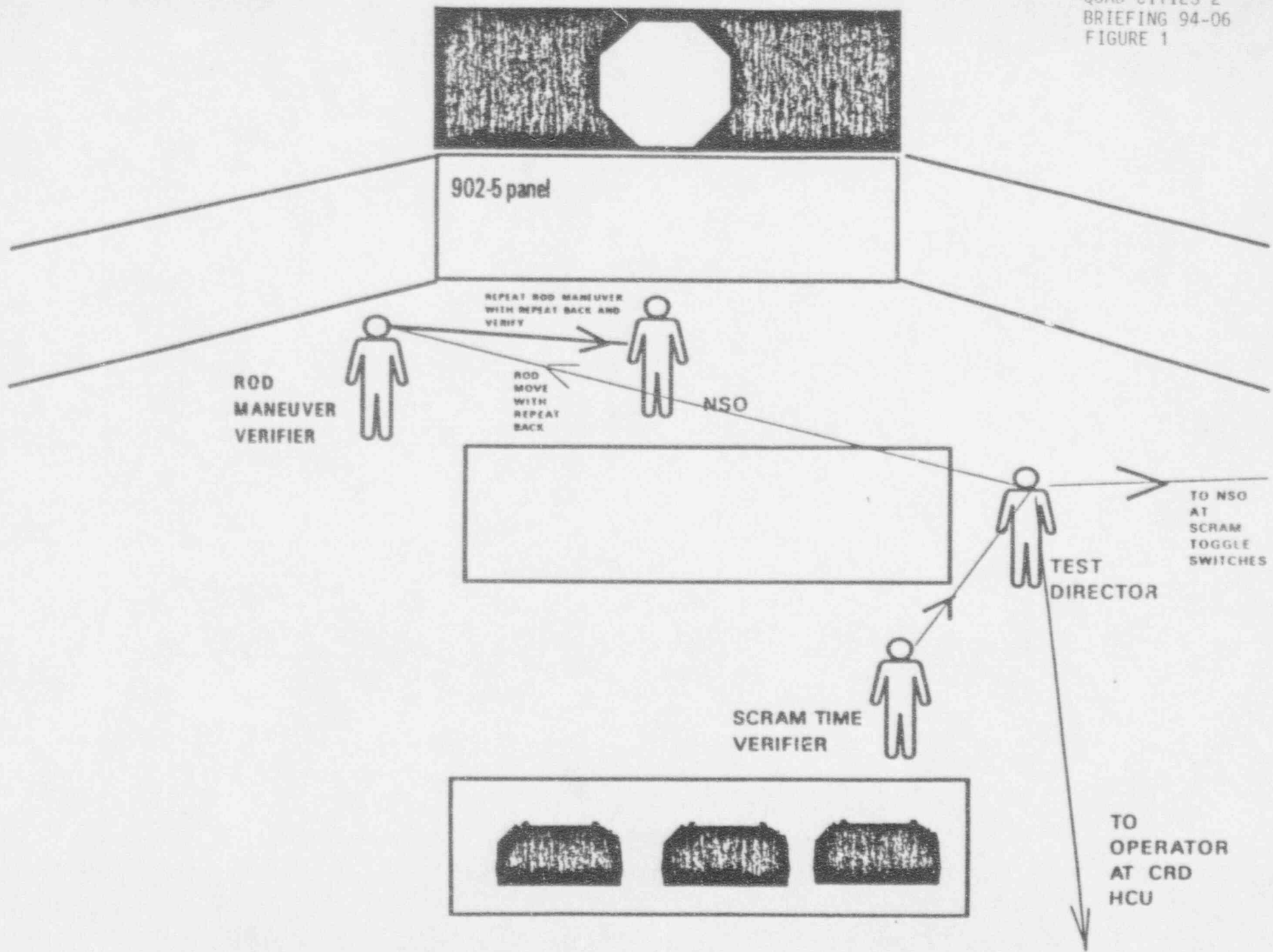


FIGURE 1 - TEST PERSONNEL POSITIONS (THURSDAY MORNING)

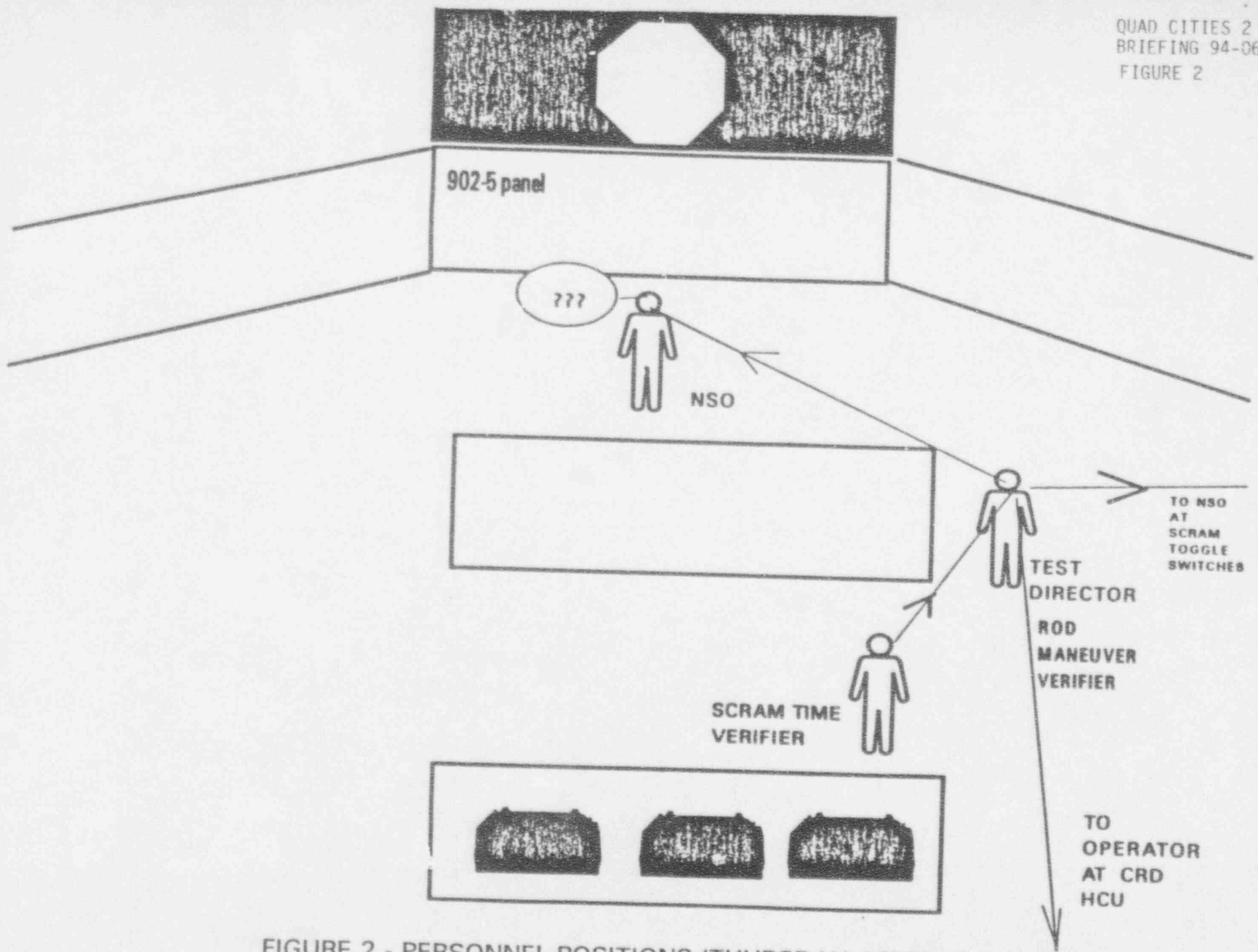
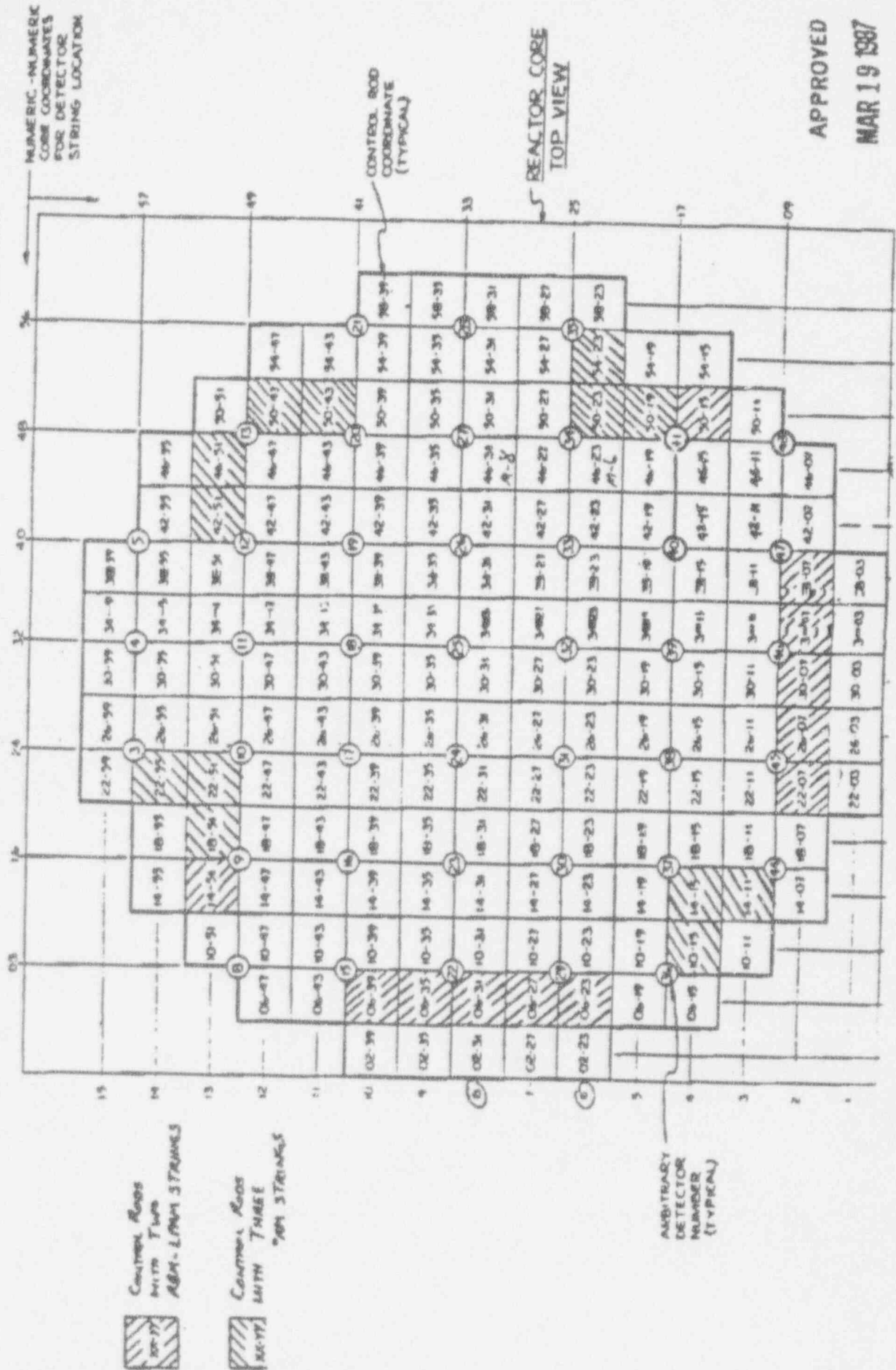


FIGURE 2 - PERSONNEL POSITIONS (THURSDAY AFTERNOON)

QOS 700-T1
Revision 1
March 1987

LOCATION OF CONTROL RODS WITH
TWO OR THREE RBM-LPBM STRINGS



APPROVED
MAR 19 1987

QUAD CITIES, UNIT 2
EMERGENCY DIESEL GENERATOR
COOLING WATER PUMPS
JANUARY 1992 TO MARCH 1993

PROBLEM

THE EMERGENCY DIESEL GENERATOR (EDG) COOLING WATER PUMPS (CWPs) FOR BOTH THE SWING EDG AND THE UNIT 2 EDG WERE CONCURRENTLY DEGRADED FROM JANUARY 1992 TO MARCH 1993.

CAUSE

FOR THE SWING EDG CWP, THERE WAS A DESIGN DEFICIENCY IN THE LOGIC CIRCUITRY THAT HAD EXISTED SINCE ORIGINAL PLANT CONSTRUCTION.

FOR THE UNIT 2 EDG CWP, A BEARING OIL RESERVOIR WAS IMPROPERLY INSTALLED IN JANUARY 1992.

SAFETY SIGNIFICANCE

THE EDG CWPs ARE REQUIRED FOR EDG OPERABILITY. BASED ON THE INFORMATION PRESENTLY KNOWN, THE ESTIMATED CONDITIONAL CORE DAMAGE PROBABILITY WAS 2.6×10^{-4} . THE DOMINANT ACCIDENT SEQUENCES INVOLVED THE POTENTIAL LOSS OF OFFSITE POWER WITH DEGRADED EDG CAPABILITY LEADING TO UNIT 2 BLACKOUT.

CONTACT: N. HUNEMULLER, NRR/DORS
REFERENCES: 50.72 #25437
LERS 50-265/93-010 & 93-012
I.R. 50-265/93-12

AIT: NO
SIGEVENT: YES

DISCUSSION

- ON 4/22/93, DURING A TEST, THE SWING EDG CWP FAILED TO START FROM A UNIT 2 SIGNAL.
- THE SWING EDG CWP IS NORMALLY POWERED FROM UNIT 1 (BUS 18). THE ALTERNATE POWER SUPPLY IS FROM UNIT 2 (BUS 28). DURING EITHER A UNIT 2 LOCA OR IF THE SWING EDG OUTPUT BREAKER CLOSES TO ITS UNIT 2 BUS, THE CWP TRANSFERS TO THE ALTERNATE POWER SUPPLY.
- A DESIGN DEFICIENCY WAS IDENTIFIED IN THAT, WHEN ALIGNED TO BUS 28, THE SWING EDG CWP RECEIVED A START SIGNAL FROM THE SWING EDG COMING UP TO SPEED, TRIPPED ON UNDERVOLTAGE BECAUSE THE EDG WAS NOT YET SUPPLYING ADEQUATE VOLTAGE TO BUS 28, AND WOULD NOT AUTOMATICALLY RESTART DUE TO THE ANTI-PUMP LOGIC OF THE SUPPLY BREAKER.
- INFORMATION NOTICE 88-75, SUPPLEMENT 1: "DISABLING OF DIESEL GENERATOR OUTPUT CIRCUIT BREAKERS BY ANTI-PUMP CIRCUITRY," DESCRIBED PREVIOUS SIMILAR DEFICIENCIES FOUND AT THE ZION NUCLEAR POWER STATION.
- THE SWING EDG CWP COULD HAVE BEEN MANUALLY RESTARTED LOCALLY AS DIRECTED BY PROCEDURE.
- ON 3/29/93, AN OPERATOR IDENTIFIED THAT THE BEARING OILERS FOR THE UNIT 2 EDG CWP WERE IMPROPERLY INSTALLED. UPON DISASSEMBLY, THE BEARINGS WERE FOUND TO BE SEVERELY DAMAGED. PUMP FAILURE WAS IMMINENT.

- THE OIL RESERVOIR HAD BEEN IMPROPERLY INSTALLED IN JANUARY OF 1992 SUCH THAT THERE WAS NO LUBRICATION TO THE BEARINGS. HOWEVER, THE PUMP HAD PASSED ITS SURVEILLANCE TESTS AND OPERATED PROPERLY WHEN CALLED UPON SINCE THAT TIME.

FOLLOW UP

- THE LICENSEE MODIFIED THE SWING EDG CWP BREAKER CONTROL LOGIC TO ALLOW THE SWING EDG CWP TO AUTOMATICALLY RESTART WHEN ADEQUATE VOLTAGE BECAME AVAILABLE.
- THE LICENSEE REPLACED THE UNIT 2 EDG CWP.
- THE LICENSEE TRAINED MAINTENANCE PERSONNEL ON PROPER OILER ASSEMBLY.
- ON 7/30/93, THE NRC ISSUED A NOTICE A VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTIES TOTALLING \$100,000.
- THE PROBABILISTIC SAFETY ASSESSMENT BRANCH PROVIDED AN ESTIMATED CONDITIONAL CORE DAMAGE PROBABILITY OF 2.6×10^{-4} . THE DOMINANT ACCIDENT SEQUENCES WERE ASSOCIATED WITH A POTENTIAL LOSS OF OFFSITE POWER AND DEGRADED EDG CAPABILITY LEADING TO UNIT 2 BLACKOUT CONDITIONS.

REACTOR SCRAM

Reporting Period: 01/31/94 to 02/06/94

<u>DATE</u>	<u>PLANT & UNIT</u>	<u>POWER</u>	<u>TYPE</u>	<u>CAUSE</u>	<u>COMPLICATIONS</u>	<u>YTD ABOVE 15%</u>	<u>YTD BELOW 15%</u>	<u>YTD TOTAL</u>
02/01/94	COMANCHE PEAK 1	100	SA	Equipment Failure	NO	1	0	1
02/02/94	VOGTLE 1	100	SA	Maintenance Error	NO	1	0	1
02/03/94	PEACH BOTTOM 3	45	SM	Maintenance Error	NO	1	0	1

Note: Year To Date (YTD) Totals Include Events Within The Calendar Year Indicated By The End Date Of The Specified Reporting Period

COMPARISON OF WEEKLY SCRAM STATISTICS WITH INDUSTRY AVERAGES

PERIOD ENDING
02/06/94

SCRAM CAUSE	NUMBER OF SCRAMS	PERIOD ENDING 02/06/94				
		1994 WEEKLY AVERAGE (YTD)	1993 WEEKLY AVERAGE	1992 WEEKLY AVERAGE	1991* WEEKLY AVERAGE	1990* WEEKLY AVERAGE
POWER GREATER THAN OR EQUAL TO 15%						
EQUIPMENT FAILURE*	1	2.1	1.8	2.6	2.9	3.4
DESIGN/INSTALLATION ERROR*	0	0.0	-	-	-	-
OPERATING ERROR*	0	0.0	0.3	0.2	0.6	0.5
MAINTENANCE ERROR*	2	0.8	0.5	0.4	-	-
EXTERNAL*	0	0.0	0.1	-	-	-
OTHER*	0	0.0	-	0.2	-	-
Subtotal	3	2.9	2.7	3.4	3.5	3.9
POWER LESS THAN 15%						
EQUIPMENT FAILURE*	0	0.4	0.4	0.4	0.3	0.4
DESIGN/INSTALLATION ERROR*	0	0.0	-	-	-	-
OPERATING ERROR*	0	0.2	0.1	0.1	0.2	0.1
MAINTENANCE ERROR*	0	0.0	-	0.1	-	-
EXTERNAL*	0	0.0	-	-	-	-
OTHER*	0	0.0	-	0.1	-	-
Subtotal	0	0.6	0.5	0.7	0.5	0.5
TOTAL	3	3.5	3.2	4.1	4.0	4.4

SCRAM TYPE	NO. OF SCRAMS	PERIOD ENDING 02/06/94				
		1994 WEEKLY AVERAGE (YTD)	1993 WEEKLY AVERAGE	1992 WEEKLY AVERAGE	1991 WEEKLY AVERAGE	1990 WEEKLY AVERAGE
TOTAL AUTOMATIC SCRAMS	2	2.5	2.4	3.1	3.3	3.2
TOTAL MANUAL SCRAMS	1	0.9	0.9	1.0	0.7	1.2

TOTALS MAY DIFFER BECAUSE OF ROUNDING OFF

* Detailed breakdown not in database for 1991 and earlier

- EXTERNAL cause included in EQUIPMENT FAILURE

- MAINTENANCE ERROR and DESIGN/INSTALLATION ERROR causes included in OPERATING ERROR

- OTHER cause included in EQUIPMENT FAILURE 1991 and 1990

NOTES

1. PLANT SPECIFIC DATA BASED ON INITIAL REVIEW OF 50.72 REPORTS FOR THE WEEK OF INTEREST. PERIOD IS MIDNIGHT SUNDAY THROUGH MIDNIGHT SUNDAY. SCRAMS ARE DEFINED AS REACTOR PROTECTIVE ACTUATIONS WHICH RESULT IN ROD MOTION, AND EXCLUDE PLANNED TESTS OR SCRAMS AS PART OF PLANNED SHUTDOWN IN ACCORDANCE WITH A PLANT PROCEDURE. THERE ARE 111 REACTORS HOLDING AN OPERATING LICENSE.
2. PERSONNEL RELATED PROBLEMS INCLUDE HUMAN ERROR, PROCEDURAL DEFICIENCIES, AND MANUAL STEAM GENERATOR LEVEL CONTROL PROBLEMS.
3. COMPLICATIONS: RECOVERY COMPLICATED BY EQUIPMENT FAILURES OR PERSONNEL ERRORS UNRELATED TO CAUSE OF SCRAM.
4. "OTHER" INCLUDES AUTOMATIC SCRAMS ATTRIBUTED TO ENVIRONMENTAL CAUSES (LIGHTNING), SYSTEM DESIGN, OR UNKNOWN CAUSE.

OEAB SCRAM DATA

Manual and Automatic Scrams for 1987	-----	435
Manual and Automatic Scrams for 1988	-----	291
Manual and Automatic Scrams for 1989	-----	252
Manual and Automatic Scrams for 1990	-----	226
Manual and Automatic Scrams for 1991	-----	206
Manual and Automatic Scrams for 1992	-----	212
Manual and Automatic Scrams for 1993	-----	176
Manual and Automatic Scrams for 1994	--(YTD 02/06/94)--	18

OPERATING REACTOR PLANTS SIGNIFICANT EVENTS

No Sort Specified

QUERY> Event Type SIG & Event Date >= 09/07/93 & Event Date <= 09/07/93 & Event Type = "SIG"

<u>PLANT & UNIT</u>	<u>DATE OF EVENT</u>	<u>50.72 NUMBER</u>	<u>DESCRIPTION OF EVENT</u>	<u>SIGNIFICANCE</u>	<u>OR BRIEFING</u>	<u>PRESENTER</u>	<u>CLOSEOUT RECORD</u>
LASALLE 2	09/07/93	0	LICENSEE SUBJECT TO PROPOSED CIVIL PENALTY IN EXCESS OF \$100K FOR PROBLEMS IN RSD PROTECTION.	OTHER - PROGRAMMATIC WEAKNESS IN THE LICENSEE RADIATION PROTECTION PROGRAM	94-02	GREENE T.	HIGHLIGHT