

NOV 30 1990

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

Mr. Oliver D. Kingsley, Jr.
Senior Vice President, Nuclear Power
Tennessee Valley Authority
6N 38A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

Dear Mr. Kingsley:

SUBJECT: SUMMARY OF NOVEMBER 19, 1990 TVA/NRC MEETING ON BROWNS FERRY

This letter refers to the meeting held on November 19, 1990, at the Browns Ferry Nuclear Plant in Decatur, Alabama. The purpose of the meeting was to discuss the remote shutdown test, power ascension/startup training, advanced authorization of design changes, and deferrals in the system preoperability checks. A list of attendees, a summary of the meeting, and a copy of your handout are enclosed.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code 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 matter, please contact us.

Sincerely,

Original Signed By
BRUCE A. WILSON

Bruce A. Wilson, Chief
TVA Projects

Enclosures:

1. List of Attendees
2. Meeting Summary
3. Handout

cc w/encls: (See page 2)

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NOV 30 1990

Tennessee Valley Authority

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bcc w/encls:

S. D. Ebnetter, RII

S. C. Black, NRR

P. J. Kellogg, TVAP/RII

J. Rutberg, OGC

M. S. Callahan, GPA/CA

R. H. Bernhard, TVAP/RII

G. C. Laines, NRR

F. J. Hebdon, NRR

T. M. Ross, NRR

NRC Document Control Desk

DRP Section Chief

NRC Resident Inspector

U.S. Nuclear Regulatory Commission

Route 12, Box 637

Athens, AL 35611

TVA/RII

PK

PKellogg:vyg

11/30/90

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Tennessee Valley Authority

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cc w/encls:

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Director
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Chairman, Limestone County
Commission
P. O. Box 188
Athens, AL 35611

Dr. Henry Myers, Science Advisor
Committee on Interior and
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Washington, D. C. 20515

O. J. Zeringue, Site Director
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General Counsel
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Knoxville, TN 37902

Claude Earl Fox, M.D.
State Health Officer
State Department of Public Health
State Office Building
Montgomery, AL 36130

State of Alabama

bcc w/encls: (See page 3)

ENCLOSURE 1

LIST OF ATTENDEES

Nuclear Regulatory Commission

S. D. Ebnetter, Regional Administrator
B. A. Wilson, Chief, TVA Projects
F. J. Hebdon, Project Directorate II-4
P. J. Kellogg, Section Chief, TVA Projects Section 2
C. A. Patterson, Restart Manager, Browns Ferry Nuclear Plant
W. Bearden, Resident Inspector, Browns Ferry Nuclear Plant
E. F. Christnot, Resident Inspector, Browns Ferry Nuclear Plant
P. G. Humphrey, Resident Inspector, Browns Ferry Nuclear Plant
K. D. Ivey, Resident Inspector, Browns Ferry Nuclear Plant

Tennessee Valley Authority

O. D. Kingsley, Senior Vice President, Nuclear Power
M. O. Medford, Vice President, Nuclear Assurance, Licensing and Fuels
O. J. Zeringue, Site Director, Browns Ferry Nuclear Plant (BFNP)
H. Weber, Engineering and Modification Restart Manager, BFNP
J. Rupert, Project Engineer, BFNP
L. Myers, Plant Manager, BFNP
M. Herrell, Operations Manager, BFNP
P. Salas, Compliance and Licensing Supervisor, BFNP
B. McKinney, Technical Support Manager, BFNP
G. Turner, Site Quality Manager, BFNP
J. Hudson, Engineering Department
C. Crane, Work Control Supervisor
R. Johnson, Modifications Manager

ENCLOSURE 2

MANAGEMENT MEETING SUMMARY

A management meeting was held at the Browns Ferry Nuclear Plant with the Tennessee Valley Authority (TVA), on November 19, 1990 to discuss the remote shutdown test, power ascension/startup training for licensed operators, advanced authorizations, and deferrals. The meeting was opened by the Senior Vice President, Nuclear Power introducing the operations manager.

The operations manager presented TVA's position on the shutdown from outside the control room test to be conducted as a part of the restart program. The proposal consisted of a controlled cooldown from the remote stations following the plant hydrostatic test. The NRC indicated they would review the proposal.

The operations manager then conducted a presentation on the training to be given licensed operators prior to restart. This presentation included an outline of the training already conducted as well as that to be conducted immediately prior to restart. The NRC indicated that the operating crews would be evaluated by the NRC license examiners on the plant simulator prior to restart. The NRC indicated that controls needed to be in place prior to restart to ensure those operators with restricted licenses would be prohibited from assuming the controls of the reactor prior to the restrictions being removed. TVA agreed to review this area to ensure adequate controls are in place.

The project engineer then made a presentation on advanced authorized field design change notices (AAFDCN). AAFDCN's are design changes made during modifications which move forward for approval as the work is being performed. TVA acknowledged that some risk was involved in this process. The risk being that AAFDCN could be rejected by engineering and therefore the work would have to be redone. TVA indicated that less than one percent of the AAFDCN's have been rejected and that the program was being effectively managed.

The status of deferrals and exceptions on systems turned over for operation was discussed by the manager of technical support. Questions concerning the increasing number of deferrals were answered satisfactorily.

The meeting was closed by the Regional Administrator thanking TVA for the presentation.

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT

TVA/NRC MANAGEMENT MEETING

NOVEMBER 19, 1990

AGENDA

I. REMOTE SHUTDOWN
DEMONSTRATION

M. E. HERRELL

II. POWER ASCENSION/STARTUP
TRAINING

M. E. HERRELL

III. ADVANCED AUTHORIZATION
(CABLE ISSUE)

J. R. RUPERT

IV. DEFERRALS

B. T. MCKINNEY

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT

TVA/NRC MANAGEMENT MEETING
REMOTE SHUTDOWN DEMONSTRATION

NOVEMBER 19, 1990

REMOTE SHUTDOWN DEMONSTRATION TEST OBJECTIVES

- Demonstrate Procedural Controls For Remote Shutdown
- Verify Communications And Coordination Between In-plant Locations
- Demonstrate Operator Actions
- Verify Equipment Operation

REMOTE SHUTDOWN DEMONSTRATION
NSSS VENDOR INVOLVEMENT

GE REVIEWED THE RG's AND RECOMMENDED THE
FOLLOWING PROGRAM

- Control Room Evacuation With Plant Shutdown
- Perform Backup Control System/Component Testing
- Initiate RHR Shutdown Cooling During Remote Shutdown Demonstration
- Verify RCIC And SRV Capabilities During Restart Program

GE's RECOMMENDATIONS WERE INCORPORATED

REMOTE SHUTDOWN DEMONSTRATION PROCEDURAL CONTROLS

- Run AOI For Control Room Abandonment
- Simulate AOI Steps That Cannot Be Performed (Main Turbine Trip, MSR/V Operation, etc)
- Demonstrates AOI can Be Performed With Minimum Shift Manning
- Procedure Is Adequate For Returning Plant to Normal

REMOTE SHUTDOWN DEMONSTRATION TEST COMMUNICATIONS

- New Radio Repeater and Radio System Installed - Ch. 3 Devoted Exclusively To Accident Scenarios
- Sound Powered Telephones Utilized
- Command and Control Training For Licensed Operators

REMOTE SHUTDOWN DEMONSTRATION DEMONSTRATE OPERATOR ACTIONS

- Remote Shutdown Training is Part of Annual Re-qual Program
- Classroom and In-plant Walkdown of Remote Shutdown Procedures
- Simulator Training
- Appendix R SSIs Demonstrated Within the Last Year
- Remote Shutdown Demonstration Utilizes Tech Spec Minimum Shift Manning

REMOTE SHUTDOWN DEMONSTRATION
VERIFY EQUIPMENT OPERATION

EXTENSIVE RESTART TESTING (2-BFN-RTP-BUC)

- Tested Safe Shutdown Functions Of All Unit 2 And Common Equipment With Backup Controls
- Annunciation And Alarms Tested
- Negative Logic Verified (e.g. MCR Switches Inoperable After Transfer)

INTEGRATED COLD FUNCTIONAL TEST SEQUENCE

- Run AOI For Control Room Abandonment
- Simulate AOI Steps That Cannot Be Performed (Main Turbine Trip, MSRV Operation, etc)

BACKUP CONTROL SYSTEMS TESTED ANNUALLY

REMOTE SHUTDOWN DEMONSTRATION CONCERNS WITH AT-POWER TEST

Test Inconsistent With The FSAR

SCRAM From Backup Control Panel Outside
Licensing And Design Basis

Potential USQ Must Be Addressed

Unnecessary Challenge To Safety Systems

- Loss Of Automatic Safety Functions - RCIC, LPCI, ADS, And Drywell Blowers
- Core Reactivity Is Difficult To Monitor From The Backup Control Panel

REMOTE SHUTDOWN DEMONSTRATION COMPLIANCE WITH REGULATORY GUIDANCE

- BFN Not a RG 1.68 Plant
- Design And Licensing Basis Does Not Support Full Compliance
- RG 1.68 And RG 1.68.2 Reviewed And Elements Incorporated Into The Test Program Where Applicable
- Extensive Restart Testing Of Remote Shutdown Instrumentation And Controls

REMOTE SHUTDOWN DEMONSTRATION SUMMARY

- Test Objectives Satisfied
- Regulatory Guidance Addressed
- TVA Concerns Addressed

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT

TVA/NRC MANAGEMENT MEETING
POWER ASCENSION/STARTUP
TRAINING

NOVEMBER 19, 1990

POWER ASCENSION TEST PROGRAM TRAINING

TRAINING CONDUCTED

- 04/02/90 THROUGH 05/11/90

SIMULATOR TRAINING CONTENT

- LOSS OF OFFSITE POWER TEST (LOSP)
- LOSP WITH FAILURE OF DIESEL GENERATOR
- LOSP WITH FAILURE OF A 161KV LINE
- FEEDWATER TUNING - REACTOR FEED PUMP TRIP TEST
- TRIP OF TWO REACTOR FEED PUMPS
- HPCI TUNING WITH MANUAL INJECTION
- HPCI MANUAL INJECTION WITH FW CONTROL FAILURE
- RECIRC PUMP TRIP TEST AND LOSS OF BOTH RECIRC PUMPS

POWER ASCENSION TEST PROGRAM TRAINING

CLASSROOM TRAINING CONTENT

- INTRODUCTION TO PATP - OPEN VESSEL TESTING
- POWER ASCENSION TEST - HEATUP TO 55% POWER
- POWER ASCENSION TEST - 55% TO 100% POWER

EVALUATION OF TRAINING

- WEEKLY STATIC TEST
- WEEKLY CLASSROOM TEST
- NORMAL POST SCENARIO CRITIQUES
- ANNUAL REQUALIFICATION STARTUP SCENARIO EVALUATION

SPECIAL STARTUP TRAINING

START WEEK OF DECEMBER 31, 1990

COMPLETE WEEK OF FEBRUARY 4, 1991

DURATION FOR EACH STARTUP CREW

- SIMULATOR - 16 HOURS
- CLASSROOM - 12 HOURS

SIMULATOR SUBJECTS

- ACHIEVE CRITICALITY AND ESTABLISH HEATUP RATE
- STARTUP/HEATUP FROM 150 PSIG TO RATED CONDITIONS
- TI-189, HIGH PRESSURE COOLANT INJECTION SYSTEM

SPECIAL STARTUP TRAINING

CLASSROOM SUBJECTS

- ADMINISTRATIVE
- LESSONS LEARNED FROM SEQUOYAH
PEACH BOTTOM AND SEABROOK
- PLANT MANAGEMENT EXPECTATIONS
- REACTOR LEVEL SETPOINT CHANGES
- REACTOR LEVEL CORRECTION CURVES
- PATP CHANGES
- PROCEDURE CHANGES
- MODIFICATIONS
- TECHNICAL SPECIFICATIONS
- UNIT 2 CYCLE 6 CORE DESIGN
(REACTIVITY CONCERNS)
- ROD WORTH MINIMIZER SPECIAL
TEST RESULTS
- SRO/RO LICENSE RESPONSIBILITIES
PURSUANT TO 10 CFR PART 55

EVALUATION

- NORMAL TRAINING INTERFACE
AND CRITIQUE

PROCEDURE FOR REMOVAL OF
RESTRICTIONS FROM LICENSES

SAME AS PRESENTED IN 02/09/90 MEETING

- QUAL CARD FOR REACTOR MANIPULATIONS
- QUAL CARD FOR TIME AT POWER

FORM LETTER - PREAPPROVED BY LICENSING

- FAX TO NRC

48 HOUR TURNAROUND BY NRC

- FAX TO SITE LICENSING

BFN OPERATING GROUPS
SHIFT COMPOSITION

- MOST EXPERIENCED HOT LICENSED PERSONNEL ASSIGNED TO UNIT 2
- HOT LICENSE EXPERIENCE LEVELS EQUALIZED BETWEEN GROUPS

BFNP OPERATOR EXPERIENCE SUMMARY

GROUP	SOS/ASOS LIC.EXP.			UO YRS.EXP.		AUO YRS.EXP.	BFNP YRS.EXP.
	SRO	RO	TOTAL	RO	TOTAL	AUO/BFNP	GROUP @ BFNP
1	18	25	43	14	35	69	172
2	37	12	49	24	50	64	191
3	21	22	43	23	36	86	192
4	19	11	40	25	41	79	182
5	31	24	55	26	39	75	198
6	25	16	41	24	40	77	191
AVG/GP	25	18	45	22	40	75	187
AVG/PER	5	3.6	9	4.4	8	5.8	7.5

OPERATIONS SHIFT MANNING FOR UNIT 2 RESTART

Group	1	2	3	4	5	6	EXTRA
SOS	WALKER, P.L. *	JONES, T.G. *	LAMB, J.E. *	DUKE, J.E. *	ELKINS, D.O. *	WHITE, J.H. *	IRWIN, P.R. *
ASOS							
U-2	OLIVE, D.M. *	DOLLAR, J.E. *	ELMS, T.D. *	HALL, J.C. *	GRAY, S.R. *	SCILLIAN, E.R. *	
U-1&3	HAMPTON, J.A.	LITTLE, G.V.	HYDE, G.A.	MOYE, R.W.	BRANAM, D.L. *	ASH, M.W. *	
Outside	CRUMPTON, H.D. *	HARRIS, R.E. *	CHRISTOPHER, G. *	DAVENPORT, R.K.	CAIN, J.D. *	COX, J.C.	
SSS	TAYLOR, T.P. *	TOMLINSON, E.L. *	SOUTH, D.L. *	KRAUSE, L.L.	BAGGETT, B.E. *		JORDAN, T.W. *
STA	ROGERS, T.	WILLIAMS, M.B.	NACOSTE, R.	WILKINSON, R.	WHITE, D.K.	MOLL, R.J.	HOSMER, D.
CLK	COLLINS	EATON, R.N.	HANEY, T.	CORUM, K.G.	SMITH, J.M.		
UO/RL							
U-2L	MILLER, R.O. *	PHARR, R.E. *	HANNAH, R.F. *	JOHNSTON, R.V. *	MARTIN, J.W. *	BRADFORD, G. *	FISHER, C.B. *
U-2	MARSH, R.W. *	NASH, R.O. *	FLETCHER, H.A.	BATEMAN, D.R. *	JOHNSON, R.L. *	WESTFIELD, E.S. *	CAMPBELL/McDONALD
U-1	LEE, G.W.	MARTIN, R.V.	FRALEY, T.R.	COBB, J.M.	ELLIS, J.S.	HOLM, R.O.	GERMAIN / HIGHAM
U-3	MARTIN, J.C.	CHADWELL, P.C.	SAVAGE, J.D.	KERSTETTER, R.L.	HENKE, L.K.	JACKSON, L.D.	
SST	NICHOLS, K.A.	TRAVIS, F.B.	CAMPBELL, M.D.	NASH, M.T.	HAMMETT, M.S.	KULISEK, J.T.	
UO/RW		CORNWELL, M.G.	CZERMAK, L.S.	WEEMS, R.D.	FARLER, J.R.	PRESLEY, W.F.	
AUO							
2TB	BAILEY, W.J.	JONES, R.E.	HILLIS, P.E.	THREADGILL, C.D.	COFFEE, I.	SCHMITZ, J.N.	COPLEY, J.C.
2RB	PATRICK, C.D.	RODRIGUEZ, M.	HOLTZCLAW, R.E.	BROCK, T.L.	ASSAYAG, P.	TAYLOR, T.R.	KEMP, R.A.
1TB	STINCHCOMB, S.J.	DAWES, T.G.	LARGE, T.R.	AKINS, B.L.	CANAFAX, J.K.	ANDERSON, W.H.	SCOTT, A.W.
1RB	WALKER, J.	McCULLOCH, J.O.	REEVES, M.O.	STEWART, J.C.	HALL, P.K.	BLOSSINGAME, J.	STOWE, R.H.
3TB	LACY, T.C.	HARDIN, C.H.	HAYS, D.R.	HEATH, L.L.	MEARS, R.C.	COLLINS, T.P.	
3RB	McILVEEN, J.T.	HOLLOWAY, B.D.	CREEK, R.C.	KEASLER, A.W.	WHEELER, J.D.	JOHNSON, J.R.	
RW	ROGERS, S.D.	DUNCAN, J.C.	JONES, L.E.	JEFFRIES, J.F.	SANDERS, C.E.	KELLEY, C.S.	
WT	NELSON, J.R.	SILER, T.R.	RANGE, J.K.	JONES, T.L.	OWENSBY, G.L.	SAINT, T.W.	
LOG	BROWN, W.R.	BURNS, W.W.	HARRIS, F.M.	NICKLES, L.E.	THOMPSON, T.A.	PIERCE, K.J.	
OCC	GILLIAM, J.E.	KIER, C.A.	GATTIS, E.G.	ROBERTSON, D.E.	CHRISTMAN, S.A.	ARNOLD, S.A.	
OCC	HOPKINS, M.E.	COONER, J.B.	HOGAN, S.K.	TIDWELL, D.D.	HINDS, J.H.	REES, W.H.	
OCC	GIBSON, G.S.	BUTLER, V.W.	PEEK, P.R.	HIGGINS, D.K.	BROWN, R.A.	GARRETT, J.M.	
OCC	WIANS, R.A.	LACKEY, J.I.	TEGGINS, M.K.	RUSS, S.W.	BRADLEY, J.W.	STEWART, S.D.	

* = Full (HOT) operating license

BROWNS FERRY NUCLEAR EXPERIENCE SUMMARY

GROUP 1

TITLE	NAME	SRO EXP	RO EXP	NON LIC EXP	TOTAL EXP
SOS	WALKER, P.L.	7	5	4	16
ASOS 2	OLIVE, D.M.	4	4	7	15
ASOS 1/3	HAMPTON, J.A.	DEC EXAM	4	4	8
ASOS BOP	CRUMPTON, H.D.	1	10	5	16
SSS	TAYLOR, T.P.	6	2	2	10
SRO AVERAGE		4	5	4	13
STA	ROGERS, T.	N/A	N/A	4 (ENG)	4
UO 2L	MILLER, R.O.		8	5	13
UO 2	MARSH, R.W.		2	6	8
UO 1	LEE, G.W.		1	4	5
UO 3	MARTIN, J.C.		1	4	5
SST	NICHOLS, K.A.		2	2	4
RO AVERAGE			3	4	7
UO RW					
2TB	BAILEY, W.J.			10	10
2RB	PATRICK, C.D.			7	7
1TB	STINCHCOMB, S.J.			8	8
1RB	WALKER, J.			6	6
3TB	LACY, T.C.			8	8
3RB	MCILVEEN, J.T.			4	4
RW	ROGERS, S.D.			5	5
WT	NELSON, J.R.			4	4
LOG	BROWN, W.R.			6	6
OCC	GILLIAM, J.E.			3	3
OCC	HOPKINS, M.R.			2	2
OCC	GIBSON, G.S.			1	1
OCC	WIANS, R.A.			4	4
AUO AVERAGE				5	5

BROWNS FERRY NUCLEAR EXPERIENCE SUMMARY

GROUP 2

TITLE	NAME	SRO EXP	RO EXP	NON LIC EXP	TOTAL EXP
SOS	JONES, T.G.	14	1	2	17
ASOS 2	DOLLAR, J.E.	4	3	3	10
ASOS 1/3	LITTLE, G.V.	2	N/A	7 (ENG)	9
ASOS BOP	HARRIS, R.E.	2	5	1	8
SSS	TOMLINSON, E.L.	14	3	3	20
SRO AVERAGE		7	2	3	12
STA	WILLIAMS, M.B.	1	N/A	3 (ENG)	5
UO 2L	PHARR, R.E.		8	5	13
UO 2	NASH, R.O.		8	9	17
UO 1	MARTIN, R.V.		4	3	7
UO 3	CHADWELL, P.C.		2	3	5
SST	TRAVIS, F.B.		2	6	8
RO AVERAGE			5	5	10
UO RW	CORNWELL, M.G.			8	8
2TB	JONES, R.E.			7	7
2RB	RODRIGUEZ, M.			7	7
1TB	DAWES, T.G.			10	10
1RB	MCCULLOCH, J.O.			10	10
3TB	HARDIN, C.H.			8	8
3RB	HOLLOWAY, B.D.			3	3
RW	DUNCAN, J.C.			2	2
WT	SILER, T.R.			2	2
LOG	BURNS, W.W.			4	4
OCC	KIER, C.A.			3	3
OCC	COONER, J.B.			3	3
OCC	BUTLER, V.W.			4	4
OCC	LACKEY, J.I.			1	1
AUO AVERAGE				5	5

BROWNS FERRY NUCLEAR EXPERIENCE SUMMARY

GROUP 3

TITLE	NAME	SRO EXP	RO EXP	NON LIC EXP	TOTAL EXP
SOS	LAMB, J.E.	7	5	4	16
ASOS 2	ELMS, T.D.	1	6	1	8
ASOS 1/3	HYDE, G.A.	DEC EXAM	2	3	5
ASOS BOP	CHRISTOPHER, G.H.	1	7	4	12
SSS	SOUTH, D.L.	12	2	2	16
SRO AVERAGE		4	4	3	11
STA	NACOSTE, R.	N/A	N/A	4	4
UO 2L	HANNAH, R.F.		11	4	15
UO 2	FLETCHER, H.A.		4	3	7
UO 1	FRALEY, T.R.		2	2	4
UO 3	SAVAGE, J.D.		4	1	5
SST	CAMPBELL, M.D.		2	3	5
UO AVERAGE			5	3	8
UO RW	CZERMAK, L.S.			8	8
2TB	HILLIS, P.E.			16	16
2RB	HOLTZCLAW, R.E.			11	11
1TB	LARGE, T.R.			14	14
1RB	REEVES, M.O.			9	9
3TB	HAYS, D.R.			10	10
3RB	CREEK, R.C.			2	2
RW	JONES, L.E.			4	4
WT	RANGE, J.K.			3	3
LOG	HARRIS, E.M.			5	5
OCC	GATTIS, E.G.			4	4
OCC	HOGAN, S.K.			1	1
OCC	PEEK, P.R.			4	4
OCC	TEGGINS, M.K.			4	4
AUO AVERAGE				7	7

BROWNS FERRY NUCLEAR EXPERIENCE SUMMARY

GROUP 4

TITLE	NAME	SRO EXP	RO EXP	NON LIC EXP	TOTAL EXP
SOS	DUKE, J.E.	8	3	5	16
ASOS 2	HALL, J.C.	7	2	2	11
ASOS 1/3	MOYE, R.W.	DEC EXAM	2	3	5
ASOS BOP	DAVENPORT, R.K.	1	4	2	7
SSS	KRAUSE, L.L.	2	0	8 (ENG)	10
SRO AVERAGE		4	2	4	10
STA	WILKINSON, R.	1	N/A	4 (ENG)	5
UO 2L	JOHNSTON, R.V.		13	5	18
UO 2	BATEMAN, D.R.		4	3	7
UO 1	COBB, J.M.		2	5	7
UO 3	KERSTETTER, R.L.		2	2	2
SST	NASH, M.		4	3	7
RO AVERAGE			5	4	9
	WEEMS, R.D.			8	8
	THREADGILL, C.D.			7	7
2RB	BROCK, T.L.			7	7
1TB	AKINS, B.L.			8	8
1RB	STEWART, J.C.			17	17
3TB	HEATH, L.L.			15	15
3RB	KEASLER, A.W.			4	4
RW	JEFFRIES, J.F.			3	3
WT	JONES, T.L.			4	4
LOG	NICKLES, L.E.			4	4
OCC	ROBERTSON, D.E.			4	4
OCC	TIDWELL, D.D.			4	4
OCC	HIGGINS, D.K.			1	1
OCC	RUSS, S.W.			1	1
AUO AVERAGE				6	6

BROWNS FERRY NUCLEAR EXPERIENCE SUMMARY

GROUP 5

TITLE	NAME	SRO EXP	RO EXP	NON LIC EXP	TOTAL EXP
SOS	ELKINS, D.O.	12	2	4	18
ASOS 2	GRAY, S.R.	4	6	3	13
ASOS 1/3	BRANAM, D.L.	DEC EXAM	7	1	8
ASOS BOP	CAIN, J.D.	1	8	7	16
SSS	BAGGETT, B.E.	13	1	2	16
SRO AVERAGE		6	5	3	14
STA	WHITE, D.K.	1	N/A	3 (ENG)	4
UO 2L	MARTIN, J.W.		13	2	15
UO 2	JOHNSON, R.L.		7	1	8
UO 1	ELLIS, J.S.		3	5	8
UO 3	HENKE, L.K.		1	3	4
SST	HAMMETT, M.S.		2	2	4
RO AVERAGE			5	3	8
UO RW	FARLER, J.R.			9	9
2TB	COFFEE, I.			12	12
RB	ASSAYAG, P.			8	8
1TB	CANAFAX, J.K.			7	7
1RB	HALL, P.K.			7	7
3TB	MEARS, R.C.			13	13
3RB	WHEELER, J.D.			11	11
RW	SANDERS, C.E.			3	3
WT	OWENSBY, G.L.			3	3
LOG	THOMPSON, T.A.			2	2
OCC	CHRISTMAN, S.A.			4	4
OCC	HINDS, J.H.			1	1
OCC	BROWN, R.A.			2	2
OCC	BRADLEY, J.W.			2	2
AUO AVERAGE				6	6

BROWNS FERRY NUCLEAR EXPERIENCE SUMMARY

GROUP 6

TITLE	NAME	SRO EXP	RO EXP	NON LIC EXP	TOTAL EXP
SOS	WHITE, J.H.	13	1	6	20
ASOS 2	SCILLIAN, E.R.	4	3	1	8
ASOS 1/3	ASH, M.W.	2	6	2	10
ASOS BOP	COX, J.C.	6	6	4	16
SSS					
SRO AVERAGE		6	4	3	13
STA	MOLL, R.J.	DEC EXAM	0	5 (TNG)	5
UO 2L	BRADFORD, G.		11	5	16
UO 2	WESTFIELD, E.S.		7	4	11
UO 1	HOLM, R.O.		2	2	4
UO 3	JACKSON, L.D.		2	3	5
SST	KULISEK, J.T.		2	2	4
RO AVERAGE		N/A	5	3	8
UO RW	PRESLEY, W.F.			12	12
2TB	SCHMITZ, J.N.			18	18
2RB	TAYLOR, T.R.			7	7
1TB	ANDERSON, W.H.			9	9
1RB	BLASINGAME, J.			8	8
3TB	COLLINS, T.P.			7	7
3PB	JOHNSON, J.R.			3	3
RW	KELLEY, C.S.			2	2
WT	SAINT, T.W.			4	4
LOG	PIERCE, K.J.			4	4
OCC	ARNOLD, S.A.			4	4
OCC	REES, W.H.			2	2
OCC	GARRETT, J.M.			4	4
OCC	STEWART, S.D.			6	6
AUO AVERAGE				6	6

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT

TVA/NRC MANAGEMENT MEETING
ADVANCED AUTHORIZATION

NOVEMBER 19, 1990

ADVANCED AUTHORIZATION (AA) FDCN PROCESS

OBJECTIVE

- AUTHORIZE DESIGN CHANGES IN FIELD TO PERMIT CRAFT TO CONTINUE WORK

APPROACH

- STAGED FIELD CHANGE PROCESS THAT ALLOWS FIELD WORK AND DESIGN PACKAGE CHANGES TO PROCEED IN PARALLEL WITH MINIMAL RISK TO FIELD REWORK (BUDGET AND SCHEDULE IMPACT ONLY)
- THE FIELD ENGINEERING SUPERVISOR HAS A HIGH DEGREE OF CONFIDENCE THAT THE CHANGE WILL BE APPROVED BY NE
- ENGINEERING DECISIONS BASED ON REQUIRED LEVEL OF ENGINEERING EVALUATION

NUCLEAR SAFETY ASSURED BY

- AA WITHIN SCOPE OF APPROVED SAFETY ASSESSMENT/SAFETY EVALUATION (10CFR50.59 EVALUATION)
- SYSTEMS CANNOT BE DECLARED OPERATIONAL PRIOR TO FINAL APPROVAL AND ISSUANCE OF FDCN
- WITHIN SCOPE OF EXISTING DESIGN CHANGE
- AA FINALIZED THRU ESTABLISHED FDCN PROCESS

NUCLEAR ENGINEERING
ADVANCED AUTHORIZED FDCN's

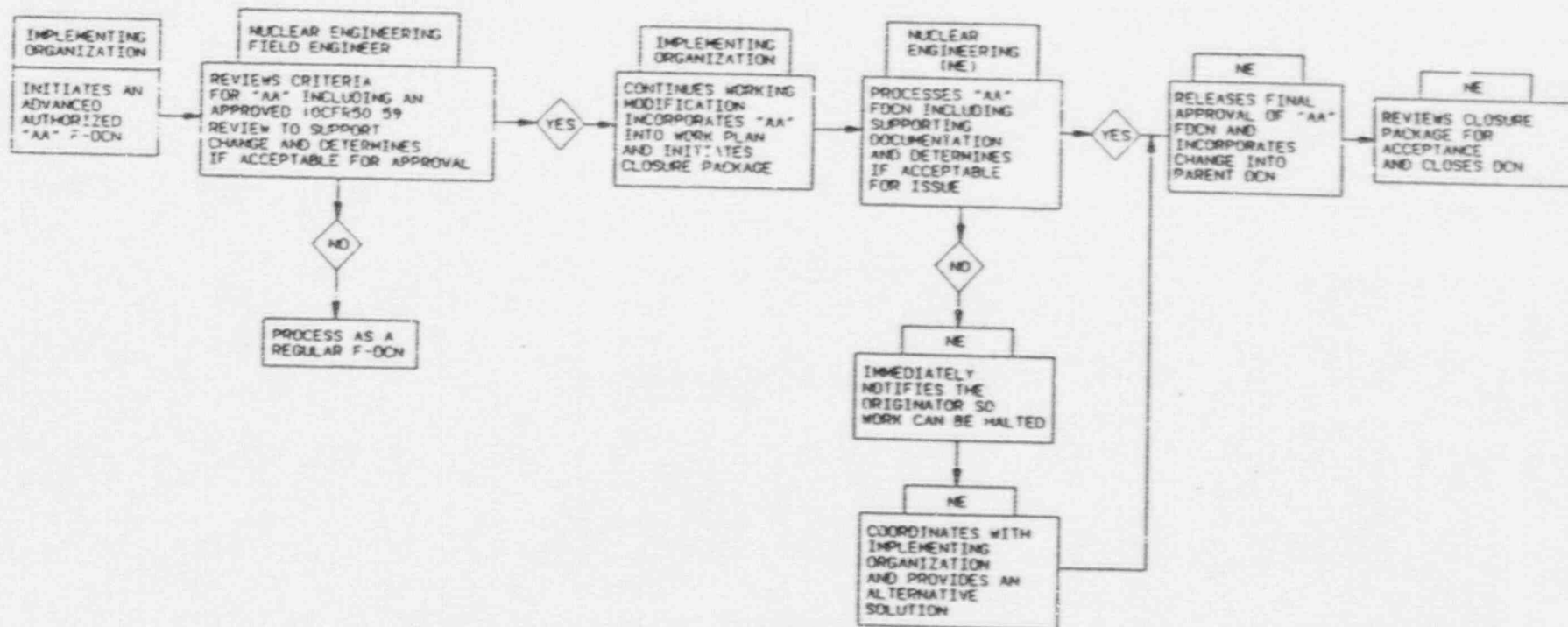
- 2367 OF THE 2867 FDCN's INITIATED BETWEEN 8/1/90 AND 11/15/90 WERE ADVANCED AUTHORIZED (82%).

- ONLY 24 OF THE ADVANCED AUTHORIZED FDCN's REQUIRED REWORK (1.0%).

BREAKDOWN

<u>DISCIPLINE</u>	<u>NO. FDC N's</u>	<u>NO. AA's</u>	<u>NO. WITH REWORK</u>	<u>PCT. REWORK</u>
CIVIL	1962	1658	12	0.7
MECHANICAL	270	178	1	0.6
ELECTRICAL	635	531	11	2.0
TOTAL	2867	2367	24	1.0

FLOW CHART ADVANCE AUTHORIZED "AA" F-DCNS



NUCLEAR ENGINEERING PX CABLE

ISSUE

- PX CABLE WAS ISSUED AND INSTALLED IN AN UNAPPROVED APPLICATION
- APPROXIMATELY 15000 FEET WAS INSTALLED

ACTIONS TAKEN

- USE OF AA FDCN's FOR CABLE CONTRACT CHANGES WAS STOPPED
- PX CABLE BEING REPLACED WITH APPROVED PXJ CABLE
- FORMAL INCIDENT INVESTIGATION REPORT UNDERWAY
- CAQR INITIATED

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT

TVA/NRC MANAGEMENT MEETING
DEFERRALS

NOVEMBER 19, 1990

DEFERRAL/EXCEPTION DEFINITIONS

SPOC DEFERRAL ITEM

An open item against the system will not be completed prior to completing the CL, but can be justified as not impacting system operability.

SPOC EXCEPTION ITEM

An open item against the system, required to be completed to declare system operability, that will not be completed prior to completing the SPOC for the system. System status and configuration control can be established on a system that has been SPOC'd with open exceptions; however, a system can not be declared operable with open exceptions.

SPOC EXCEPTIONS/DEFERRALS
CATEGORIZATION

- COMPLETING DCN CLOSURE FOR MULTIPLE SYSTEM DCNs
- TECHNICAL SPECIFICATION CHANGES NOT RECEIVED
- PLANT CONDITIONS DO NOT SUPPORT SYSTEM TESTING

SPOC EXCEPTIONS/DEFERRALS
RESOLUTION

- RESOLUTION - MILESTONE/DATE IS APPROVED AS PART OF EXCEPTION/DEFERRAL PROCESS
- SCHEDULED IN P2
- EXCEPTIONS/DEFERRALS TRACKED IN SITE MASTER PUNCHLIST
- EXCEPTIONS REVIEWED EACH WEEK IN PROJECT REVIEW MEETING

SPOC EXCEPTIONS & DEFERRALS

<u>SYSTEM NUMBER</u>	<u>DESCRIPTION</u>	<u>EXCEPTIONS (TOTAL/CLOSED)</u>	<u>DEFERRALS (TOTAL/CLOSED)</u>
002/028	Condensate/Water Treatment	3/1	7/2
005	Extraction Steam	None	None
006	Heater Drains and Vents	None	None
007	Turbine Extraction Traps and Drains	None	None
008	Turbine Drains & Misc. Piping	None	None
012/036	Aux. Boiler/Aux. FW Treatment	None	None
018	Fuel Oil	None	2/0
024	Raw Cooling Water	None	7/1
025	Raw Service Water	None	4/1
029	Potable Water	None	None
030	Ventilation	None	4/0
032	Control Air	None	4/0
034	Vacuum Priming	None	None
037	Gland Seal Water	None	None
040	Station Drainage	None	1/0
044	Building Heating	None	None
049	Breathing Air	None	None
050	Sodium Hypochlorite	None	None
051	Raw Water Chlorination	None	None
052	Seismic Monitoring	None	None

SPOC EXCEPTIONS & DEFERRALS

<u>SYSTEM NUMBER</u>	<u>DESCRIPTION</u>	<u>EXCEPTIONS (TOTAL/CLOSED)</u>	<u>DEFERRALS (TOTAL/CLOSED)</u>
053	Demin. Backwash Air	None	None
056	Temperature Monitoring	None	2/1
57-1	125V DC	None	1/1
57-6	24V/48V/Switchyard Various Transformers	None	2/0
063	Standby Liquid Control	None	None
064D	Primary Containment Isolation	None	4/0
067	Emergency Equipment Cooling Water	None	7/0
069	Reactor Water Cleanup	1/0	2/0
075	Core Spray	1/0	9/0
078	Fuel Pool Cooling	None	5/1
079	Fuel Handling	1/0	1/0
080	Primary Containment Cooling	None	1/1
082	Diesel Generators	1/0	None
085	Control Rod Drive	1/0	7/0
086	Diesel Generator Starting Air	1/0	None
092	Neutron Monitoring	2/0	4/3
315	Microwave System	<u>None</u>	<u>None</u>
	TOTALS	11/1	74/11