



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

March 25, 1988

Docket Nos. 50-259/260/296

LICENSEE: Tennessee Valley Authority
FACILITY: Browns Ferry Nuclear Plant, Unit 2
SUBJECT: SUMMARY OF MARCH 17, 1988 MEETING WITH TVA ON BROWNS FERRY UNIT 2
RESTART ISSUES - CRITERIA ON IEB 79-02/79-14 (TAC 00015/16/17)

On March 17, 1988, members of the staff met with representatives of the Tennessee Valley Authority (TVA or the licensee). The purpose of the meeting was to provide a follow-up on issues discussed during a TVA/OSP criteria meeting held on February 29, 1988 (meeting details contained in Meeting Summary dated March 4, 1988). Enclosed is a list of the attendees.

The staff in its ongoing review of TVA submittals on Browns Ferry seismic/civil issues as well as its review of these programs provided during the February 29, 1988 meeting had identified one major area of concern; namely, the proposed IEB 79-02/79-14 program for Browns Ferry, Unit 2. The staff relayed its desire to make the proposed IEB 79-02/79-14 program the primary focus of the March 17, 1988 meeting. TVA presented further details in its proposed IEB 79-02/79-14 program during the first part of the meeting. The slides used in the TVA presentation are contained in Enclosure 2.

The staff made the following comments on the license's proposed IEB 79-14/79-02 program:

- A. 100% of the Unit 2 Phase II walkdowns need to be done prior to Unit 2 restart.
- B. NRC will audit the TVA's effort when 20% of the Phase II program is completed.
- C. NRC will audit the TVA's effort again at 40-50% of Phase II program completion.

The staff indicated that its provisional acceptance of the licensee's proposed IEB 79-14/79-02 program is contingent on TVA's doing 100% of the Phase II walkdowns (item A above) and acceptable audit findings during the 20% Phase II completion milestone (item B above). TVA's current schedule projects that approximately 50% of the Phase II effort will be complete prior to Unit 2 restart. TVA will be required to evaluate the generic implications of the findings from the completed portions of the Phase II analysis. These findings include all cases where the analysis shows FSAR design criteria have not been met. The 20% audit will be used to determine whether program corrections will be needed.

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Q PDR

As part of the IEB 79-02/79-14 program TVA proposed interim criteria for Unit 2 restart modifications. The staff expressed a concern that TVA may use interim criteria to postpone required modifications without making a good faith effort to complete as many modifications as practical prior to restart. The staff stated its position that modifications coming out of the Phase II program need sufficient TVA management involvement so that there is a good faith effort demonstrated to correct deviations prior to Unit 2 restart. TVA needs to discuss their modification effort with the NRC staff to determine its acceptability prior to the staff's 20% audit. At the meeting the staff expressed some concerns with the interim criteria. The interim criteria will be the subject of a later staff evaluation.

The TVA/OSP staff also discussed additional technical areas arising from its submittals on miscellaneous steel, HVAC ductwork, drywell steel and small bore piping. These separate submittals were sent to the NRC on March 10, 1988. The licensee provided specific answers to the staff's question. Revised information or other referenced material supporting the licensee's statement on these issues will be sent to the NRC shortly.

Original signed by
Gerald E. Gears, Project Manager
TVA Projects Division
Office of Special Projects

Enclosures:

1. List of Attendees
2. TVA Slides used in Presentation

cc w/enclosures:

See next page

Distribution

Docket File

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Local PDR

Those on attached list

OSP:TVA/LA
CJamerson
3/24/88

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TVA:AD/TP
BDLaw
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TVAPD:AD/R
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3/24/88

DISTRIBUTION FOR MEETING SUMMARY DATED: March 25, 1988

Facility: Browns Ferry Nuclear Plant, Unit 2*

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ENCLOSURE 1

Attendance

| <u>Name</u> | <u>Organization</u> |
|------------------|---------------------|
| Gerald E. Gears | NRC/OSP |
| John R. Fair | NRC/OSP |
| B.D. Liaw | NRC/OSP |
| R.A. Hermann | NRC/OSP |
| Mark Durks | NRC/OSP |
| M. May | Stone & Webster |
| C. Mason | LIC-BFN |
| John McCall | TVA/DNE |
| Alan Chan | SWEC |
| Don Denton | TVA/DNE |
| Carlo Brillante | TVA/DNE |
| P. Polk | TVA |
| A. Banerjee | SWEC |
| Thomas Cheng | NRC/OSP |
| Jim Clifford | NRC/OSP |
| Paul Speidel | TVA |
| Steve Richardson | NRC/OSP |

BROWNS FERRY UNIT 2
79-14/79-02 PROGRAM

- ORIGINAL DESIGN BASIS
- PHASE I
 - SCOPE
 - STATUS
- PHASE II
 - SCOPE PRIOR TO RESTART
 - STATUS
- SUMMARY

BROWNS FERRY UNIT 2
79-14/79-02 PROGRAM

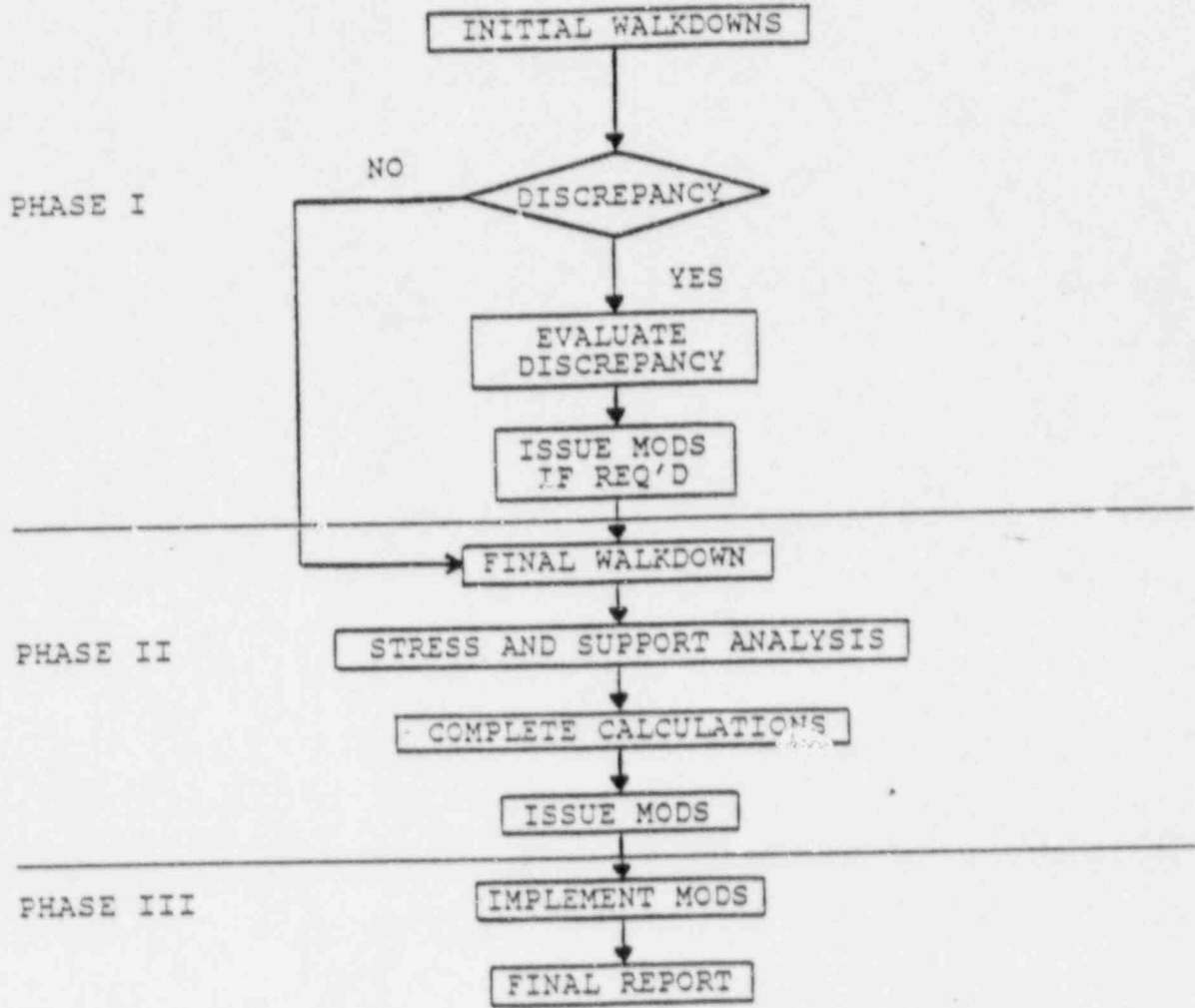
OUTLINE OF 3-PHASE PROGRAM

- PHASE I - INITIAL WALKDOWN INSPECTIONS AND EVALUATIONS OF DISCREPANCIES
- PHASE II - VERIFY AS-BUILT DATA MEETS FULL CODE COMPLIANCE
- PHASE III - IMPLEMENT MODIFICATIONS RESULTING FROM PHASE II

BROWNS FERRY UNIT 2
79-14/79-02 PROGRAM

- o ORIGINAL DESIGN BASIS
- o RIGOROUS ANALYSIS
- o CHART METHOD
 - EDS REPORT
 - TVA DESIGN CRITERIA

BROWNS FERRY UNIT 2
79-14/79-02 PROGRAM



BROWNS FERRY UNIT 2
79-14/79-02 PROGRAM

PHASE I

- o 100% WALKDOWN OF PIPING AND SUPPORTS
 - 79-14 ATTRIBUTES
 - SINGLE PARTY SIGN-OFF
 - PROCESS CONTROLLED - MM1-97
 - IDENTIFIED DISCREPANCIES FROM DESIGN DRAWINGS

- o EVALUATED DISCREPANCIES
 - ANALYSIS
 - ENGINEERING JUDGEMENT

- o PERFORMED MODIFICATIONS, AS REQUIRED

BROWNS FERRY UNIT 2
79-14/79-02 PROGRAM

STATUS

PHASE I

- COMPLETED 100% WALKDOWN
- DEVELOPED DATABASE OF SUPPORTS
- ASSEMBLED DATA PACKAGES
- RESOLVED THE 635 DISCREPANCIES (UNITS 1, 2, AND 3)
- 89 DISCREPANCIES CAUSED MODIFICATIONS
- ADDRESSING AUDITS BY NRC, ENGINEERING ASSURANCE (TVA), NSRS (TVA), & QMS (TVA)

BROWNS FERRY UNIT 2
79-14/79-02 PROGRAM

PHASE II

- o 20% COMPLETE BY JUNE 1988
 - 7 STRESS PROBLEMS

- o 45-50% COMPLETE BY DECEMBER 1, 1988 (RESTART)
 - INSIDE PRIMARY CONTAINMENT
 - TORUS ATTACHED PIPING
 - SIGNIFICANT PORTION OF SAFETY SYSTEMS

BROWNS FERRY UNIT 2
79-14/79-02 PROGRAM

SELECTION BASIS

- SAFE SHUTDOWN
- PIPE SIZE
- TEMPERATURE
- LOCATION
- PIPING CONFIGURATION
- SUPPORT TYPES
- STRUCTURAL ATTACHMENTS

BROWNS FERRY UNIT 2
79-14/79-02 PROGRAM

PHASE II
SELECTED STRESS PROBLEMS

| <u>PROBLEMS</u> | <u>BUILDING</u> |
|---|------------------------------|
| 1. RESIDUAL HEAT REMOVAL | REACTOR BUILDING |
| 2. CORE SPRAY | DRYWELL |
| 3. CORE SPRAY | REACTOR BUILDING |
| 4. EMERGENCY EQUIPMENT COOLING WATER | DIESEL GENERATOR BUILDING |
| 5. RESIDUAL HEAT REMOVAL SERVICE WATER | REACTOR BUILDING |
| 6. MAIN STEAM SAFETY RELIEF | DRYWELL |
| 7. EMERGENCY EQUIPMENT COOLING WATER | REACTOR BUILDING |

BROWNS FERRY UNIT 2
79-14/79-02 PROGRAM

PHASE II STATUS

- 23 PRELIMINARY STRESS ANALYSIS
- 16 PASS DESIGN CRITERIA
- 7 IN-PROCESS

BROWNS FERRY UNIT 2
79-14/79-02 PROGRAM

SUMMARY

- ORIGINAL DESIGN BASED ON STATE-OF-THE-ART APPROACH IN THE ORIGINAL DESIGN TIME FRAME
- PHASE I PROVIDES TECHNICAL JUSTIFICATION FOR AS-BUILT CONFIGURATIONS
- PHASE II PRE-RESTART SCOPE (45-50%) PROVIDES ADDITIONAL ASSURANCE OF TECHNICAL ADEQUACY

BROWNS FERRY UNIT 2 PIPING AND SUPPORTS WILL PROVIDE THEIR INTENDED FUNCTION FOR ALL SPECIFIED PLANT CONDITIONS

3/30/86