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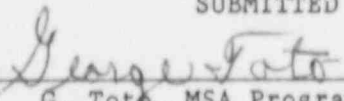
TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT

MANAGEMENT SELF-ASSESSMENT (MSA)
OF READINESS FOR RESTART


August 1988

SUBMITTED



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APPROVED



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TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT
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TABLE OF CONTENTS

EXECUTIVE SUMMARY - - - - - 1
I. BACKGROUND - - - - - 1
II. MSA PROGRAM PLAN - - - - - 3
 A. INTRODUCTION - - - - - 3
 B. BFN SELF ASSESSMENT FOR OPERATIONAL READINESS - - - - - 4
 C. INDEPENDENT REVIEWS - - - - - 8
 D. SENIOR MANAGEMENT ASSESSMENT OF READINESS TEAM - - - - - 11
III. CONCLUSION - - - - - 14
APPENDIX I - LIST OF ACRONYMS - - - - - 15

EXECUTIVE SUMMARY

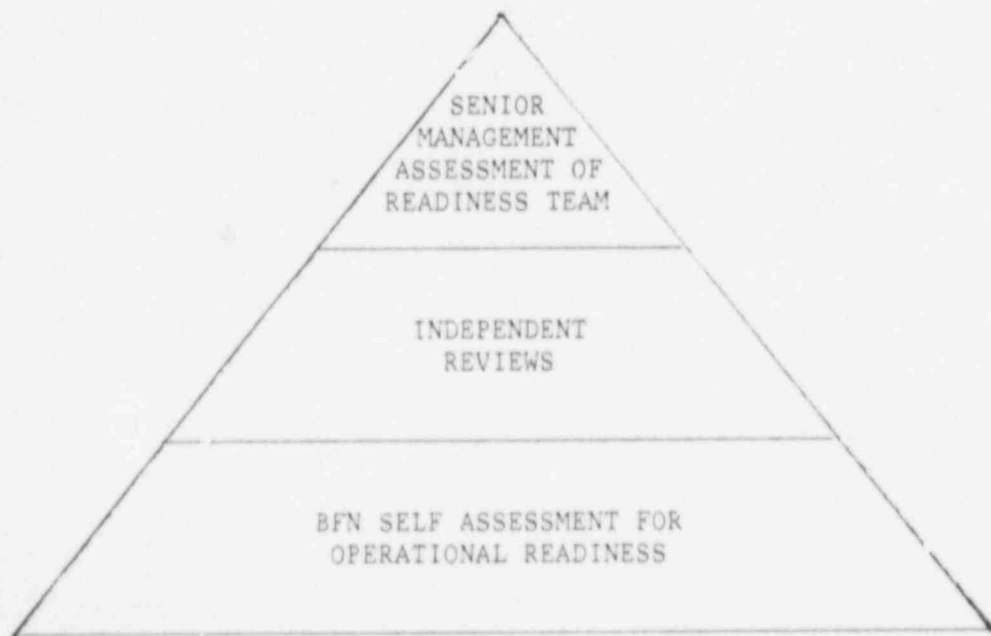
MANAGEMENT SELF ASSESSMENT (MSA) OF READINESS FOR RESTART OF BROWNS FERRY NUCLEAR PLANT

Since March 1985, Browns Ferry Nuclear Plant (BFN) has remained in a shutdown condition while TVA addresses questions on the adequacy of its nuclear program. Comprehensive action plans to close open issues and demonstrate operational readiness for BFN unit 2 restart are discussed in the Revised Corporate Nuclear Performance Plan (CNPP), Volume 1 and BFN Nuclear Performance Plan (BFNPP), Volume 3. These two plans provide an account of the actions which TVA is taking to improve its nuclear program and serve as the basis for BFN's return to power operation.

TVA's commitment to the programs described in the CNPP and BFNPP remains unchanged. Concurrently, as a part of ongoing management improvements, TVA is placing increased emphasis on lessons learned from experience gained from restart of the Sequoyah Nuclear Plant (SQN) and similar experiences from the nuclear industry. There is within the industry a trend toward increased self assessment both for startup preparations and as a routine program to achieve and maintain excellence. The Operational Readiness Review (ORR) conducted by TVA prior to SQN unit 2 restart determined that self assessment was instrumental to readiness preparation. TVA has, therefore, decided to place increased emphasis on self assessment during startup preparations at BFN.

The Senior Vice President, Nuclear Power, has directed that a management self assessment of readiness for BFN unit 2 restart be conducted. The objective of this MSA is to ensure a high level of readiness for the restart and continued safe and reliable operation of BFN. The MSA methodology provides for three interrelated levels of assessment to ensure readiness.

The three levels of the MSA program are shown below and described on the following page.



EXECUTIVE SUMMARY

BFN Self Assessment for Operational Readiness. This level will validate the accomplishment of commitments, program enhancements, and restart readiness preparations described in the BFN Operational Readiness Program. The quality of open item closure will be verified through appropriate self assessments at the working level.

Independent Reviews. Independent reviews of restart readiness preparations will be conducted by organizations internal and external to TVA, including an Operational Readiness Review (ORR) similar to that performed for SQN restart.

Senior Management Assessment of Readiness Team (SMART). The SMART will oversee the adequacy and quality of restart readiness preparations. This team will consist of the seven Vice Presidents of Nuclear Power. In their overview, SMART will use the following six acceptance bases, as a minimum, to assess the plant's readiness for restart:

- o Commitments made to NRC that are tied to restart have been resolved.
- o Work required to establish operability of systems required for restart is complete.
- o A self-assessment program has been established and effectively implemented.
- o Independent review results have been evaluated and restart related corrective actions have been verified as completed and longer term actions scheduled.
- o Pertinent performance indicators have been established and performance trends are satisfactory for restart.
- o A power ascension program, including NRC hold points, has been established.

Using the information on plant readiness from line management reports, independent reviews, and their personal observations, SMART will make a recommendation on BFN unit 2 restart to the Senior Vice President, NP. Through the accomplishment of the management self assessment described in this document, TVA will ensure a high level of readiness for the restart and continued safe and reliable operation of BFN.

I. BACKGROUND

History

Browns Ferry Nuclear Plant (BFN) units 1 and 3 were voluntarily shut down by the TVA in March 1985. Unit 2 was in a refueling outage at the time. Questions and concerns were subsequently raised about the overall adequacy of TVA's nuclear program. On September 17, 1985, the Nuclear Regulatory Commission (NRC) requested that before restart, TVA submit information about its plans for correcting both BFN specific problems and problems in the overall management of its nuclear program. In response to this request, TVA prepared a Revised Corporate Nuclear Performance Plan (CNPP), Volume 1, which identified the root causes of the problems in the management of TVA's nuclear program and described TVA's plans for correcting those problems. Additionally, TVA prepared a BFN Nuclear Performance Plan (BFNPP), Volume 3, which identified the root causes of problems specifically related to BFN. The BFNPP defined actions for correcting these problems and responded to the NRC's request for BFN specific information. Taken together, these two plans provide an account of the actions which TVA is taking to improve its nuclear program and serve as the basis for returning BFN to power operation.

Corporate Actions

Management issues which are being addressed by TVA include: hiring, developing, and retaining experienced nuclear managers; restructuring the nuclear organization to clarify lines of authority and responsibility and providing centralized direction and control of nuclear activities; taking steps to restore employee trust in nuclear management; increasing upper management awareness and involvement in nuclear activities; and improving the nuclear management systems and controls, the nuclear corrective action program, and other programmatic areas of operation, maintenance, welding, design change, and plant modifications. Actions taken or in progress are described in the Revised CNPP.

BFN Actions

Corrective actions started at the corporate level are being implemented at BFN through the BFN Site Director as well as offsite organizations responsible for direct support of BFN. These improvements include organizational changes compatible with corporate level restructuring, improved management control and involvement, revised conduct of operation and maintenance activities, improved quality awareness, centralized design control, and programs to ensure employee confidence. Plans for improved performance in each of these areas are defined in the BFNPP. Plant improvements necessary to correct previously identified deficiencies are also described in the BFNPP.

As described in the BFNPP, a number of special programs have been established at BFN because past deficiencies in conduct of activities have led to inadequately analyzed or documented design. Actions which are to be completed prior to plant restart have been identified in each program. These include special programs such as: (1) an implemented, documented, and ongoing program for environmental qualification of safety related electrical equipment, (2) a documented and maintained design basis, (3) a review of suspended components

BACKGROUND

BFN Actions (continued)

for structural adequacy during a seismic design basis event, (4) a review of design calculations for adequacy, (5) a review of fire protection with respect to current NRC and general industrial requirements and recommendations, (6) a review of past welding practices and installed welds for adequacy, (7) a review of the current condition of primary system pressure boundary and other structural components for adequacy relative to intergranular stress corrosion cracking, (8) coordinated restart test and operational readiness programs, (9) a review of instrumentation sense lines for adequate slope and other installation parameters which could affect functionality, (10) a review of how the pipe wall thinning observed at some other nuclear plants could affect BFN, (11) a review of the Probabilistic Risk Assessment application to BFN, (12) a review of component and piece parts qualification adequacy, and (13) a review of various electrical design issues. A set of lists of activities has been compiled, including outstanding TVA commitments to NRC. These lists are being tracked to closure to ensure satisfactory planning, execution, and control of BFN restart items.

Lessons Learned

TVA has taken significant steps to improve the management of its nuclear program, including actions directly related to the continued safe operation of BFN. TVA's commitment to the programs described in the CNPP and BFNPP remains unchanged. The Operational Readiness Program described in the BFNPP provides the fundamental plan to establish readiness. To ensure that BFN is ready for restart, a number of operational readiness verification and closure activities are underway. As a part of ongoing management improvements, TVA is placing increased emphasis on lessons learned from experience with SQN restart and similar experience from the nuclear industry.

After the SQN unit 2 was restored to operation in May 1988, TVA reviewed the SQN startup experience for lessons learned which could be applied to the restart of BFN. There has been ongoing communications between sites and the BFN program is benefiting from the SQN experience in both technical and operational issues. The SQN ORR determined that self assessment was a significant contributor to the overall readiness preparation. There is within the nuclear industry a trend toward increased self assessment both for startup preparations and as a routine program to achieve and maintain excellence. Self-assessment programs foster motivation to correct problems through ownership of the process.

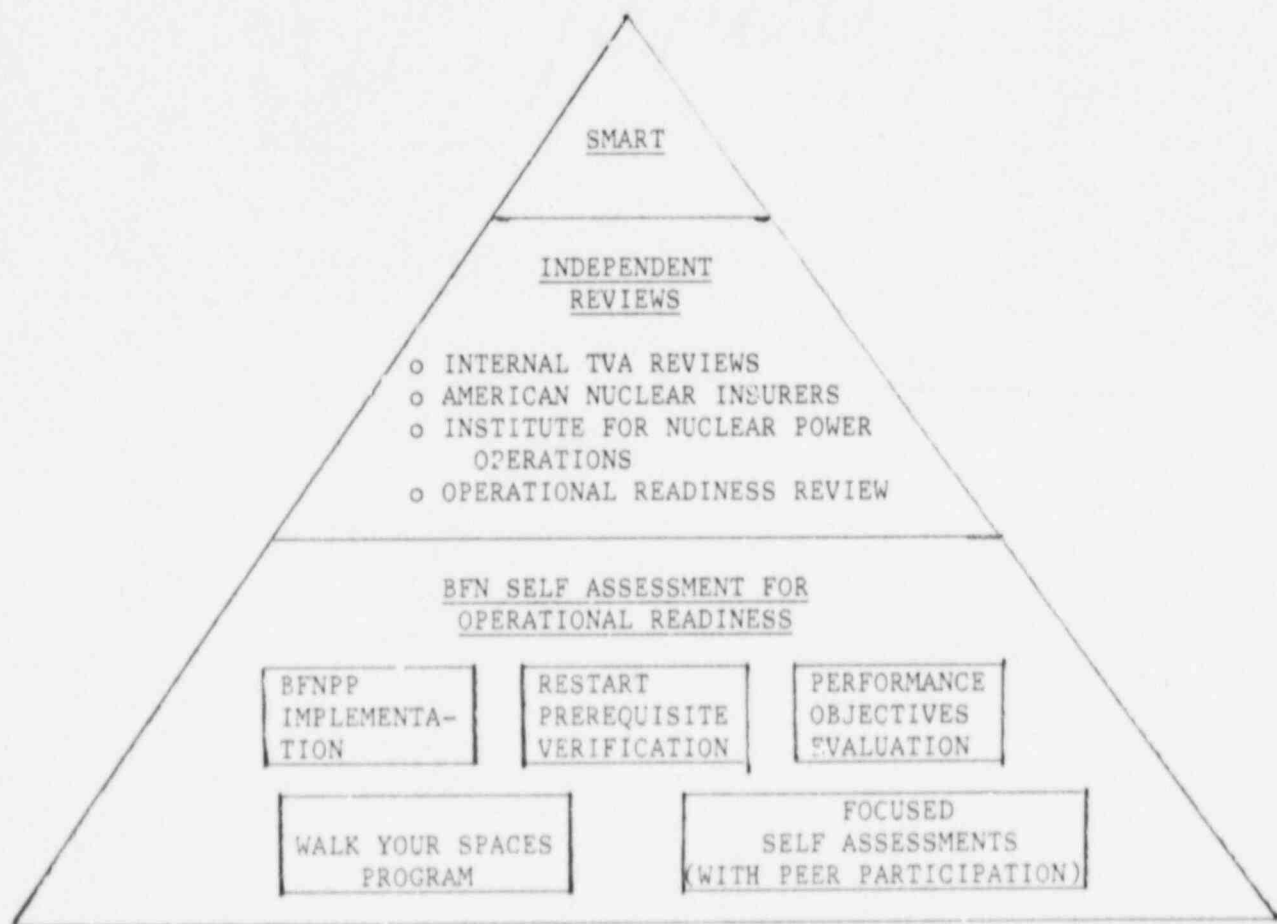
TVA plans to build upon existing BFN operational readiness programs with a structured approach of self assessment which integrates site efforts with independent reviews and senior management involvement. This approach will not only achieve a high standard of excellence in operational readiness, but also will institutionalize an improved self-assessment program. Subsequent to restart, self assessment will continue to contribute to achieving and maintaining excellence in plant operations.

II. MANAGEMENT SELF-ASSESSMENT (MSA) PROGRAM PLAN

A. INTRODUCTION

The self-assessment program will integrate and overview a broad spectrum of assessment activities to ensure high standards of excellence for the restart readiness of BFN. Working level management will perform self assessments in their areas of responsibility to ensure readiness. A measurement of the effectiveness of the working level self assessments will be accomplished by independent reviews. Senior management involvement will be provided by the Senior Management Assessment of Readiness Team (SMART) who will, through personal involvement and overview of the other assessment activities, ensure that high standards of excellence are achieved. When SMART agrees with the site's recommendation for restart, they will recommend approval for restart to the Senior Vice President, Nuclear Power

The three levels of the MSA program are shown below. The functioning of the program at those levels is described in the following sections.



Management Self-Assessment Program

MSA PROGRAM PLAN

B. BFN SELF ASSESSMENT FOR OPERATIONAL READINESS

The objective of the BFN Self Assessment for Operational Readiness is to accomplish startup preparations in a manner which ensures that the plant is ready for safe and reliable restart and operation. This objective is met using:

- o The BFN Operational Readiness Program, which consists of BFNPP Implementation, Performance Objective Evaluation, and Restart Prerequisite Verification,
- o The "Walking Your Spaces" program, and
- o Focused self assessments

These programs are discussed in more detail in the following sections.

1. Operational Readiness Program

The BFN site managed Operational Readiness Program addresses operational readiness in the following three primary program segments:

- o BFNPP Implementation
- o Performance Objectives Evaluation
- o Restart Prerequisite Verification

These program segments are described below:

BFNPP Implementation

The first segment of the BFN Operational Readiness Program will ensure that BFNPP restart issues, including text statements of intention, are resolved prior to restart. This program segment will further ensure that BFNPP requirements are addressed by appropriate site corrective actions designed to preclude problem recurrence. Major restart issues, such as Appendix R and Environmental Qualification, will have appropriate corrective actions and closure criteria identified for impacted organizations. BFNPP implementation instructions are provided in BFN Site Director's Standard Practice (SDSP) 7.3, "Operational Readiness Program for Browns Ferry Unit 2." This Standard Practice specifically addresses the following subjects:

- o Documenting BFNPP commitments
- o Identifying BFNPP requirements and specifying closure/implementation criteria
- o Documenting progress in fulfilling BFNPP commitments
- o Documenting completion of BFNPP commitments prior to unit 2 restart
- o Transferring responsibility for tracking incomplete commitments to the line and support organizations at the close of the operational readiness program

A report to the BFN Site Director will include the BFNPP requirements that pertain to operation of BFN unit 2 and the criteria for closure.

B. BFN SELF ASSESSMENT FOR OPERATIONAL READINESS (continued)

Performance Objectives Evaluation

The second segment of the BFN Operational Readiness Program involves the establishment and assessment of performance objectives. The purpose of the performance objective evaluation is to ensure that line organizations function effectively and are prepared for plant restart and operation.

The performance objectives evaluation is an assessment of station personnel, programs, practices, and management effectiveness using industry standards of excellence as guidance for comparison to actual plant practices. This site conducted activity will function in a manner similar to an Institute for Nuclear Power Operations (INPO) evaluation.

The development and evaluation of performance objectives is the responsibility of BFN site organizations. Performance objectives will be identified for each specified organization with direct or support restart responsibilities. These performance objectives must address appropriate functional areas (i.e. maintenance, quality assurance, configuration control) which are addressed in SDSP 7.3. Specific measurement criteria are required for each performance objective as well as detailed evaluation plans. Evaluation plans will define the specific actions planned for determining if criteria are properly met. Evaluation plans will normally identify the individuals who will perform the evaluations and specify a frequency for the evaluation of issues that address personnel performance. Deficiencies noted during the evaluations and the proposed corrective action will be forwarded to appropriate site management.

When performance objectives and criteria are suitably developed and evaluated for a BFN organization, the organization's principal manager will certify and document that the organization is ready to operate/support plant operation. The documentation is provided by completion of Attachment C of SDSP 7.3, which also requires the concurrence of the Site Director.

A report to the BFN Site Director will include the performance objectives, criteria, and evaluation plans necessary to complete the performance objectives evaluation activity.

Restart Prerequisite Verification

The third segment of the BFN Operational Readiness Program involves the development and verification of checklists to ensure that equipment status supports restart.

MSA PROGRAM PLAN

B. BFN SELF ASSESSMENT FOR OPERATIONAL READINESS (continued)

The purpose of these checklists is to provide a systematic method to ensure that open work items and outstanding programmatic items affecting system operability are dispositioned prior to declaring a system operable to support BFN unit 2 restart. The checklists will address the following areas:

- o Maintenance/work request backlog
- o Outstanding hold orders
- o Modification status
- o Temporary alterations
- o Surveillance status
- o Preventative maintenance status
- o Instrument maintenance status
- o Chemistry control
- o Restart testing
- o Outstanding equipment problems
- o Drawing adequacy
- o Procedure adequacy
- o Design bases

Appropriate BFN managers will receive routine progress reports. A report to the BFN Site Director will show completion of actions that meet the BFNPP requirement criteria and the completion of the performance objectives evaluations. Action necessary for restart of BFN unit 2 that is incomplete in the report will be added to the startup prerequisite checklist.

2. Walking Your Spaces Program

The "Walking Your Spaces" program was instituted by the Senior Vice President, Nuclear Power in 1986 to promote excellence in performance and to enhance critical assessment of performance against standards of excellence. It is one tool which managers use to enhance operational readiness. When managers walk their spaces, they are sensitive to all aspects of plant or office operation. Corrections may be made on the spot or documented for later attention as necessary. Immediate interaction between employees and managers helps solve many problems before they become major. Each manager is to report either verbally or in writing the results of his walking spaces to his immediate supervisor. This interaction between the manager and his supervisor is "walking your spaces" at the next higher level. Higher level managers use skip level checks to ensure the effectiveness of this self-assessment process.

Standards for evaluating performance during "walking your spaces" tours include those developed for the site performance objectives evaluation, and other recognized standards of excellence as appropriate. Additional training/coaching in effective techniques will be provided by peers from outside the BFN organization and experienced Nuclear Manager's Review Group (NMRG) personnel. The training/coaching will stress the proper implementation of standards with particular emphasis on immediate corrective actions where such standards are not met.

B. BFN SELF ASSESSMENT FOR OPERATIONAL READINESS (continued)

3. Focused Self Assessments

Focused self assessments by site organizations will provide indepth reviews of plant functional areas as well as evaluations of identified problems. The purpose of these assessments will be to compare actual plant performance to site performance objectives and other performance criteria based on established standards of excellence (e.g. INPO, American Nuclear Insurers, etc.). The assessments will identify areas for improvement and provide corrective action plans to affected organizations. The corrective action plans will normally include followup review responsibility to ensure the effectiveness of corrective actions. The Plant Manager will report the results of focused self assessments to the Site Director and to SMART. A Site Director's Standard Practice for self assessment is being developed.

The following key subjects have been selected for the initial focused self assessments:

- o Maintenance
- o Radiological Control
- o Operations
- o Technical Support (System Engineering) and Chemistry

Responsible site organizations may perform additional focused assessments in functional or specific problem areas based on feedback from the following sources:

- o Performance objective evaluations
- o "Walking Your Spaces"
- o Reviews of performance indicators
- o Independent assessments
- o Management directives
- o Engineering Assurance (EA) and QA audits and surveillances

C. INDEPENDENT REVIEWS

Independent reviews provide a measurement of the effectiveness of working level self assessments. They may be initiated by the Senior Vice President, Nuclear Power (i.e. ORR), they may be periodic (i.e. QA audits), or they may be done by outside organizations (i.e. INPO). Described below are examples of independent reviews which will provide readiness information to line management for action as appropriate and to SMART for overall readiness assessment.

1. Operational Readiness Review Team

As previously committed to in the BFNPP, the Senior Vice President, Nuclear Power will establish an independent review team with a broad base of nuclear plant operating and management experience to assess the overall restart readiness of BFN unit 2. The team will function in a manner similar to the ORR restart effort conducted at SQN and will consist of both senior level TVA managers and equivalent level experienced personnel from outside nuclear organizations. The assessment will focus on the qualification and motivation of BFN unit 2 personnel and the availability of adequate supporting resources for restart. Functional plant areas including restart testing, operations, and maintenance will be specifically evaluated.

2. Institute for Nuclear Power Operations (INPO)

The Senior Vice President, Nuclear Power will request that INPO conduct a special assistance visit at BFN unit 2 prior to restart. The request will specifically ask for a review of plant operations, maintenance, and radiological protection activities with an emphasis on startup readiness. The BFN ORR will assess the final INPO report to gain further assurance that key startup performance criteria are thoroughly evaluated.

Results and recommendations from the INPO special assistance review will be transmitted to the Senior Vice President, Nuclear Power.

Potential improvement areas identified during this special assistance visit along with those pointed out in the recent INPO Maintenance Assistance Visit and Plant Evaluation will form the basis for site corrective action plans.

3. American Nuclear Insurers (ANI)

ANI performs semiannual inspections of plant operations. An inspection was conducted for BFN in August 1988. Results and recommendations from the ANI inspection will be transmitted to the Senior Vice President, Nuclear Power.

MSA PROGRAM PLAN

C. INDEPENDENT REVIEWS (continued)

4. Nuclear Safety Review Board (NSRB)

The NSRB will review the BFNPP and assess the status of preparation for restart of BFN unit 2 from a safety perspective. The review will include an assessment of the restart plan for BFN unit 2, including the restart test program and past NSRB reports. NSRB will provide comments to assist the Senior Vice President, Nuclear Power, in his decision relative to restart.

5. Nuclear Quality Assurance (NQA)

NQA will provide independent verification of the closure of restart action items identified from the BFNPP. In addition, NQA will review the plant Operational Readiness Program for compliance to commitments made in the BFNPP. The NQA annual assessment also provides a comprehensive review of the effectiveness of BFN's implementation of the QA program.

NQA will also perform an Operational Readiness Assessment based on a Safety System Function Inspection (SSFI). The SSFI report will constitute a QA audit. Conditions adverse to quality identified during the SSFI will be evaluated for restart implications in accordance with the BFNPP and dispositioned through the TVA corrective action system.

6. Engineering Assurance (EA)

As described in the BFNPP, an oversight review team, managed by EA, is monitoring the Design Baseline and Verification Program (DBVP). The objectives of the EA monitoring effort include the following:

- o Confirm and validate that engineering activities are conducted in accordance with the approved DBVP program plan and procedures.
- o Confirm the functional and technical adequacy of system evaluations and the completeness and correctness of supporting documentation.
- o Verify that corrective action resulting from system evaluations and technical review are implemented and documented.
- o Verify that other programs adequately interface with the DBVP.

EA will conduct technical, programmatic and procured services audits of engineering activities separate from the DBVP to verify completion and adequacy of corrective actions. Additionally, EA and NQA have issued an integrated verification plan which identifies issues to be evaluated through audit, surveillances, or reviews.

EA will issue a report to the Vice President, Nuclear Engineering, which describes the results of their oversight of the DBVP.

MSA PROGRAM PLAN

C. INDEPENDENT REVIEWS, continued

7. Special Review Teams

Other internal TVA organizations such as the Independent Safety Engineering Group (ISEG) and the NMRG will provide additional restart assessments. ISEG performs independent safety reviews of plant areas and activities such as maintenance, modifications, operational problems, and operational analyses. Review reports are provided to the Nuclear Power Vice Presidents and/or site management. The NMRG reviews the activities associated with the design, construction, and operation of TVA nuclear plants. Recent reviews conducted at BFN by NMRG include Operations and Operations Training, Radiological Controls, and Document Control.

MSA PROGRAM PLAN

D. SENIOR MANAGEMENT ASSESSMENT OF READINESS TEAM (SMART)

The objective of SMART is to ensure that appropriate standards of excellence are achieved for the restart of BFN unit 2.

SMART has been established by the Senior Vice President, Nuclear Power, and consists of the seven Nuclear Vice Presidents who report to him. The Senior Vice President, Nuclear Power will provide overall direction and participate frequently in SMART activities.

The SMART will overview startup preparations through a combination of reports from responsible management, results from independent reviews, and personal observations. When all members of SMART are agreed that these preparations are adequate, it will recommend restart to the Senior Vice President, Nuclear Power

Regular meetings will be conducted in a formal manner. There will be an agenda and minutes will be retained. Copies of the minutes will be published to each SMART member, the Site Director, and the Senior Vice President, Nuclear Power. Action items will be tracked and attached to the agenda. An organizational and training meeting will be held in late August 1988. Regular meetings will commence shortly thereafter and continue until unit 2 is on line. SMART will normally meet collegially with a quorum consisting of the chairman and three of the other vice presidents. The vice president responsible for the area to be discussed will be present. The membership of SMART is as follows:

Ex Officio:	S. A. White, Sr. V.P., Nuclear Power
Chairman:	J. R. Bynum, V.P., Nuclear Power Production
Member and	
Alternate Chairman:	C. H. Fox, Jr., V.P. and Nuclear Technical Director
Members:	W. R. Brown, Jr., V.P., Nuclear Construction
	S. B. Fisher, V.P., Nuclear Business Operations
	N. C. Kazanas, V.P., Nuclear Quality Assurance
	J. A. Kirkebo, V.P., Nuclear Engineering
	J. L. McAnally, V.P., Nuclear Support

The SMART will receive support and information from many TVA and external sources. As discussed under Section II.C, Independent Reviews, there will be internal reviews such as by the NMRG and external reviews such as by INPO. The TVA Nuclear Safety Review Board which will provide advice to the SMART includes both TVA and external expertise. Corporate staff groups such as Maintenance, Chemistry, and Radiological Controls will advise the SMART on readiness status. The SMART also will receive information on readiness from the Site Director, Nuclear Engineering Project Engineer, NQA Site Quality Manager, and the Chairman, Restart Task Force Management Team. Coordination of activities and administrative support will be provided by the MSA Program Director and support staff.

MSA PROGRAM PLAN

D. SENIOR MANAGEMENT ASSESSMENT OF READINESS TFAM (SMART) (continued)

The SMART assessment of readiness will include ensuring that the six acceptance bases, which are underlined below, for this MSA are satisfied. The measurement criteria are listed under each basis:

Bases and Criteria

Commitments made to NRC that are tied to restart have been resolved.

- o Restart commitments identified in the BFNPP Volume 3 have been resolved.
- o Restart commitments identified in other TVA correspondence to NRC have been resolved.

Work required to establish operability of systems required for restart is complete.

- o Systems required for restart have been identified.
- o Restart prerequisite lists are complete.
- o Restart prerequisites affecting system operability have been satisfied.
- o System operability statements have been issued.

A self-assessment program has been established and effectively implemented.

- o Evaluations by station personnel of programs, practices, and management effectiveness are based on performance objectives taken from industry standards of excellence, thereby ensuring that standards for operation will support safe and reliable restart.
- o Assessments of key functional areas have been performed and line managers certify they are ready for restart.
- o Appropriate consideration has been given to SQN restart lessons learned.

Independent review results have been evaluated and restart related corrective actions have been verified as completed and longer term actions scheduled.

- o Corrective actions identified by independent reviews (e.g. INPO, ORR) that are required for restart have been completed. A second independent group has verified the adequacy of the corrective action.
- o Longer term corrective actions have plans developed which have been reviewed for adequacy.

Pertinent performance indicators have been established and performance trends are satisfactory for restart.

- o Performance indicators have been established.
- o Using the performance indicators, satisfactory performance trends have been identified.

A power ascension program, including NRC hold points, has been established.

- o BFN's power ascension program, including proposed NRC hold points, has been issued.

MSA PROGRAM PLAN

D. SENIOR MANAGEMENT ASSESSMENT OF READINESS TEAM (SMART) (continued)

Overview Subject Area

The following is a summary list of subject areas to be overviewed by SMART:

- o Review of special programs discussed in the BFNPP for accomplishment and adequacy
- o BFN Operational Readiness Program
- o INPC evaluation recommendations and corrective actions
- o ANI recommendations and corrective actions
- o NSRB reports
- o NQA plant operational readiness assessment (SSFI) results
- o Operational Readiness Review results

Sources of Information

Typical sources of information which SMART will use include:

- o Physical walkdowns by SMART accompanied by those responsible for selected systems, components, or areas in order to assess system and area readiness and to assess the knowledge level and standards of the responsible individuals
- o Interviews with those directly responsible for performing work in order to evaluate the extent to which the working level personnel have adopted and are meeting the appropriate standards of performance
- o Review and evaluation of selected programs, plans, and actions necessary for restart and continued operation in order to assess their progress and status
- o Presentations by line management in order to provide a basis for assessing readiness to support restart and continued operation
- o Observation of operating crews on the simulator
- o Review of independent evaluations.

Recommendations for Restart

After systematically comparing input from various sources to the six assessment bases and criteria, SMART will determine whether to recommend restart to the Senior Vice President, Nuclear Power. In support of this recommendation, a final report will be transmitted from SMART to the Senior Vice President, Nuclear Power.

III. CONCLUSION

TVA has taken significant steps to improve the management of its nuclear program, including actions directly related to the continued safe and reliable operation of BFN. Action plans to close open issues and demonstrate operational readiness for BFN unit 2 restart are discussed in the CNPP and BFNPP.

Experience gained by TVA from the successful restart of Sequoyah unit 2 and other recent industry experience has provided valuable insight on actions needed for confirming plant readiness for power operation. This insight confirms the usefulness of self assessment both for startup preparations and as a continuing process for achieving and maintaining excellence in performance. TVA has initiated a comprehensive self assessment based on existing site preparations supplemented with independent reviews and integrated through senior management overview. Through the accomplishment of the management self assessment described in this document, TVA will ensure a high level of readiness for the restart and continued safe and reliable operation of BFN.

APPENDIX I

List of Acronyms

ANI	American Nuclear Insurers
BFN	Browns Ferry Nuclear Plant
BFNPP	BFN Nuclear Performance Plan
CNPP	Revised Corporate Nuclear Performance Plan
DBVP	Design Baseline and Verification Program
NQA	Nuclear Quality Assurance
EA	Engineering Assurance
INPO	Institute for Nuclear Power Operations
ISEG	Independent Safety Engineering Group
MSA	Management Self Assessment
NMRG	Nuclear Manager's Review Group
NRC	Nuclear Regulatory Commission
NSRB	Nuclear Safety Review Board
ORR	Operational Readiness Review
SDSP	Site Director's Standard Practice
SMART	Senior Management Assessment of Readiness Team
SQN	Sequoyah Nuclear Plant
SSFI	Safety System Functional Inspections
TVA	Tennessee Valley Authority