

GRAND GULF NUCLEAR STATION
TECHNICAL SPECIFICATION REVIEW PROGRAM

PROGRAM DESCRIPTION

MISSISSIPPI POWER & LIGHT COMPANY

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GRAND GULF NUCLEAR STATION
TECHNICAL SPECIFICATION REVIEW PROGRAM

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A. Introduction

The NRC letter to Mississippi Power & Light Company (MP&L), dated February 24, 1984, requested a review of the Grand Gulf Nuclear Station (GGNS) Technical Specifications be provided within 10 days of receipt of that letter. Based on various discussions held with your staff the week of February 26, 1984, and as a result of our meeting with the Commissioners on February 29, 1984, MP&L has undertaken a detailed review of the station technical specifications and associated documentation.

The Technical Specification Review Program was described to the NRC Staff in a meeting held March 9, 1984. The information provided here as a program description represents formal documentation of that program, confirming MP&L's commitments in this matter. Where possible, clarifications and additional detail have been included to address certain questions raised by the NRC Staff.

The MP&L approach to NRC concerns regarding the plant's technical specifications is to conduct a thorough review of the specifications according to established criteria. All previously known, apparent technical specification discrepancies and the results of the Review Program will be properly categorized and dispositioned according to approved procedures. The overall goal is to assure accurate and adequate specifications.

It should be noted that the NRC letter to MP&L, referenced above, also requested MP&L to verify the consistency of the as-built plant configuration with the Final Safety Analysis Report (FSAR) and supporting documents. The primary focus of the Review Program is to verify the accuracy of the technical specifications. Nevertheless, the FSAR, as it relates to the technical specifications, will also be reviewed. The resulting discrepancies will be documented and dispositioned according to the program's procedures.

B. Objectives and Review Concept

The primary objectives of the Review Program are as follows:

1. To verify consistency of the plant's technical specifications with the as-built plant configuration, the FSAR, and the NRC Staff's Safety Evaluation Report (SER) on GGNS (NUREG-0831).
2. To identify, submit, and support issuance of necessary changes to the technical specifications in a timely manner.
3. Lastly, to provide the necessary assurance that the GGNS technical specifications are accurate and adequate.

At the core of the review effort is the goal to establish assurance that the technical specifications are consistent with (1) the as-built plant configuration and (2) the current FSAR and SER as amended through Supplement No. 4. To accomplish this, the review criteria will be used to evaluate the specifications against as-built documentation; where appropriate, field walk-downs will be conducted.

This review concept uses the current technical specifications (through Operating License Amendment No. 12) as the basis for review and compares that basis against the above noted documents. To provide assurance that technical specification related commitments contained in various licensing documents are considered in the review, a computerized commitment tracking system will be utilized. Use of this system is discussed further in Section E.

In addition to the review of the technical specifications against the above described documents, a comparison of the GGNS Technical Specifications to the BWR-6 Standard Technical Specifications (STS) will be performed. This comparison will assure consistency with the STS, except for those areas where the Grand Gulf Technical Specifications deviate, but are considered appropriate due to plant unique design features. This review will be conducted primarily by General Electric and Bechtel Power Corporation. These companies were selected to perform this review because of their direct involvement in the plant's design and construction.

Additional detail on the review scope, method, and criteria is presented in Sections E and F.

C. Management Control Requirements

Several measures have been incorporated into the Review Program to ensure a quality result. Some of the more significant management controls are as follows:

1. All key Review Program positions will be filled by MP&L employees.
2. The Review Program Project Manager reports directly to the Senior Vice President - Nuclear.
3. The Review Program activities will be conducted and controlled in accordance with a definitive, approved procedure.
4. The review of each technical specification section and disposition of discrepancies identified will be thoroughly documented.
5. The Review Program is fully auditable, and Quality Assurance will conduct audits of the Program's implementation and effectiveness.

6. Significant management attention has been focused on this very critical activity. All resources necessary to implement and execute this program will be made available.
7. To provide an independent assessment of the program's effectiveness, MP&L management has retained Impell Corporation to review the program, inspect work activities in progress, and provide a report on the adequacy of the program.

D. Organization and Review Execution

1. Project Management

The Review Program's organization is shown in Figure D-1. Reporting directly to the Senior Vice President - Nuclear is the Project Manager. In this capacity the Project Manager is directly responsible for the program's implementation and effective execution. By reporting to the highest level of management in the Company's nuclear organization, the Project Manager exercises the authority of senior management in acquiring the necessary resources to accomplish the program's objectives and to coordinate the activities of the major resources within the nuclear organization; namely, Nuclear Plant Engineering (NPE), Nuclear Services, the Plant Staff, and the Plant and Corporate Safety Review Committees. This alignment also provides optimum communication with the Company's senior management in regard to the program's progress and results.

Also reporting to the Senior Vice President - Nuclear, working with the Project Manager, is an executive level Steering Committee. This committee consists of the managers of all major nuclear organizations within MP&L, the Advisor to the Vice President - Nuclear, and senior management representatives of General Electric Company (GE) and Bechtel Power Corporation (BPC). MP&L's Vice President - Nuclear is chairman of this committee and is responsible for assisting in program development, project oversight, and resolution of programmatic problems, as necessary.

The Project Manager is also assisted by an Assistant Project Manager, a Scheduler, a Quality Engineer, and a Records Control Manager. These staff positions function primarily to relieve the Project Manager of some of the program's administrative burden and also to provide project quality control support.

2. Review Organizations

At the core of the program's organization are four principal groups. Three groups conduct detailed reviews of specific areas, and the fourth group evaluates the detailed review results, assigns priorities, and coordinates appropriate corrective actions.

Consistent with the program's review concept (Section B), the review organization is configured to use the technical specifications as the base document to which other licensing and design documents will be compared. This concept will insure a thorough review of the current technical specifications. In keeping with this approach, the technical specifications have been divided into three major areas. These three areas are defined as:

1. Technical specifications primarily associated with equipment or systems provided by the Nuclear Steam System Supplier (NSSS) or by the Balance of Plant (BOP) supplier,
2. Radiological effluent technical specifications, and
3. Technical specifications related to administrative areas or controls.

A lead review organization is assigned to each of the above listed areas. Each review organization is supervised by an MP&L manager. All of these managers are located at the plant site.

2.1 NSSS/BOP Review Group

The NSSS/BOP Review Group is the most complex entity in the project organization due to this group's interface with the NSSS and BOP reviewing organizations. This group is supervised by the NSSS/BOP Manager, who is an MP&L employee. Reporting to the NSSS/BOP Manager are the NSSS Manager and the BOP Manager, both of whom are MP&L employees. These two managers coordinate the activities of the NSSS review organization and the BOP review organization. These three managers are located on site.

Also reporting to the NSSS/BOP Manager is an Onsite Review Team (ORT). This team is composed, as a minimum, of the following:

- (a) A GE or BPC engineer.
- (b) An MP&L NPE engineer.
- (c) An MP&L Senior Reactor Operator.

The initial review for the NSSS/BOP Review Group will be conducted by GE and BPC as the lead review organizations (LRO), each according to a defined Division of Responsibility (DOR) for the technical specifications. This review will in part be conducted at the LRO's home office, with some field verification conducted at the plant site. The total number of personnel involved in the NSSS/BOP review, including all managers, is approximately 115 personnel, the majority of whom are knowledgeable engineers.

The result of the lead organization's review is a technical specification review package. (Criteria and scope of review is discussed in Section E.) This package is reviewed by the respective NSSS or BOP Manager and forwarded to the NSSS/BOP Group Manager who then assigns the package to the Onsite Review Team (ORT) to concur with the findings and recommended actions. In areas where GE and BPC scopes interface, the ORT is specifically tasked to resolve any conflicts as appropriate. Items not immediately resolvable are escalated directly and without delay to the attention of the Project Manager. With ORT concurrence on the technical specification package, the NSSS/BOP Manager reviews and forwards the package to the Review, Prioritization and Direction Group (RPD) for further processing. As noted earlier, the RPD group will evaluate the review results and assign an appropriate priority to any potential technical specification change identified. The RPD group would then refer the item to the appropriate section in the Nuclear Production Department for resolution.

In summary, prior to the RPD group receiving a given specification's package, the specification will have been reviewed by a responsible engineer in the GE or BPC organization, the NSSS or BOP Manager, the ORT, and the NSSS/BOP Manager. A knowledgeable MP&L engineer will be in permanent residence at each of the subject home offices, monitoring progress and assisting in resolution activities, as necessary. This position will be filled continuously for at least the initial month of review and, thereafter, on an "as-needed" basis.

2.2 RETS and Administrative Review Groups

The Radiological Effluent Technical Specification (RETS) Review Group and Administrative Review Group have a substantially smaller scope than that of the NSSS/BOP Review Group. Both groups are supervised by MP&L employees, specifically selected for their background and experience in their respective areas. The RETS review effort is directed by the MP&L Manager of Radiological and Environmental Services. The Administrative Review Group is directed by a knowledgeable engineer from the MP&L Quality Assurance organization. Both groups, upon generation of a specification review package, forward their findings to the RPD Group for further processing. (See Section F for discussion of the role of the RPD Group.)

2.3 Review, Prioritization and Direction Group

The RPD Manager is the Plant Staff Technical Superintendent. This group consists of representatives from Nuclear Plant Engineering (NPE), Plant Staff, Nuclear Safety & Compliance (Nuclear Services), and selected consulting engineers. The role of this group is discussed in more detail in Section F.

E. Review Scope and Criteria

1. Review Scope

1.1 Specific Objectives in Technical Specification Sections

As discussed in Section B, the review objectives are to review the technical specifications and verify consistency with principal design and licensing documentation. The Review Program's objectives relative to the specific sections of the technical specifications are discussed below:

- (a) Safety Limits - Verified to be complete and in accordance with the plant's design analyses.
- (b) Limiting Conditions for Operation (LCO) - Determined to accurately reflect the necessary functional capability or performance level of equipment required for safe operation, based on design analyses.
- (c) Action Statements - Verified to be consistent with design analyses.
- (d) Surveillance Requirements - Test types and frequencies reviewed to ensure that they adequately address design requirements and allow conservative operation during testing.
- (f) Bases - Verified to be correct and in accordance with design analyses.
- (g) Design Features - Verified to be accurately described.
- (h) Administrative Controls - Verified to be consistent with relevant licensing commitments.

Each lead review organization, based on the technical specification division of responsibility (DOR), will approach their respective specifications with the objectives as discussed above. In many cases, an assigned specification may impact the majority of the above listed objectives. Some overlap of review is expected and is considered to enhance the quality of review.

1.2 Lead Review Organization, Primary Scope of Review

The lead review organizations have the following primary scope of review:

GE/BPC - These organizations, reporting to their respective MP&L NSSS or BOP Managers, are responsible for the bulk of the review effort. Their review scope consists primarily of technical specifications Sections 2.0 and 3/4.1 through 10, as defined in the approved DOR. Their review will also cover all Definitions, Bases or Design Features associated with an assigned specification.

RETS Review Group - This group, as the title implies, will review primarily technical specifications Sections 3/4.11 and 3/4.12, effluent and radiological monitoring, respectively. Other appropriate areas will be assigned by the DOR. The RETS group will also be responsible for associated Definitions, Bases and Design Features, as applicable.

Administrative Review Group - The scope of this group's review consists of those sections not already specifically covered, namely:

Section 1.0 - Definitions
Section 5.0 - Design Features
Section 6.0 - Administrative Controls

1.3 Licensing Documentation Basis

For the purposes of this review, the following revision or amendment status represents the basis for all reviews.

Operating License - Amendment 12 (2/21/84)
Final Safety Analysis Report - Amendment 57 (11/83)
Final Environmental Report* - Amendment 8 (12/81)
Safety Evaluation Report (NUREG-0831) - As revised
and supplemented through Supplement No. 4 (5/83)

*Applicable to RETS review only.

1.4 Review Concept

As discussed in Sections A and B, the approach of this review utilizes the technical specifications as the central document which is compared with other documentation and information. Under this approach, the technical specifications are compared to the FSAR, SER, FER (RETS review only), and the as-built plant configuration. The review against the as-built plant includes, where necessary, a field walkdown by knowledgeable engineers. The processing of review results is discussed in Section F.

In addition to the review efforts described above, all outstanding items previously identified in several MP&L and NRC sponsored reviews will be placed on a master punchlist and processed through the RPD Group. This effort will provide a re-evaluation of these items in a documented and consistent manner based on standard criteria. As with all items delivered to the RPD Group, an assessment of priority will be made and appropriate corrective action directed and tracked.

As a matter of completeness, steps will be taken to identify and properly resolve open commitments in the FSAR and other licensing documents that relate to the technical specifications. To accomplish this task the already existing Licensing Commitment Tracking System (LCTS), will be utilized. The LCTS was implemented by MP&L in 1983. The LCTS data base was generated from a licensing review of the FSAR, SER and supplements, operating license, and all formal correspondence between MP&L and NRC. The system is maintained by the MP&L Nuclear Services Organization in accordance with approved administrative procedures.

Apparent or possible changes to the technical specifications generated from this review activity will be added to a master punchlist of possible technical specification changes and provided to the RPD Group for further processing (see Section F).

2. Prioritization Criteria

Once an item identified by a review group is determined by the RPD Group to warrant a change to the technical specifications, it is the responsibility of the RPD Group to assign an appropriate priority to the item. The priority structure consists of three tiers, generally in the order of the evaluated safety significance. These are described as follows:

Priority 1: Problems requiring resolution in the short term including items which would necessitate a plant shutdown or prohibit startup. Technical specifications not conservative with respect to the FSAR or SER are included in this priority. All items included here require, as a minimum, NRC concurrence to proceed above 5% power.

Priority 2: Problems/enhancements requiring resolution. All items included here are considered to have minimum or no safety significance where operations above 5% power is clearly justified from a "significant safety hazard consideration" aspect. Items in this priority are, therefore, considered to be required, if at all, on a long term schedule.

Priority 3: Items classified in this priority are generally problem areas that were identified by an organization outside of MP&L in which case the organization suggests, requests, or requires a change to the technical specifications. The item's presence in this group reflects a determination by MP&L that a change to the technical specifications is not justified and,

therefore, not recommended by MP&L. Such items are assigned a priority classification primarily for documentation purposes. Priority 3 items may be generic in nature, but in any case, have insufficient safety significance to warrant a higher priority.

The specific priority definitions with which the RPD Group is making this determination are presented in Table E-1.

F. Review and Closure Process

1. Overall Process and Procedural Controls

An overall presentation of the review and closure process is provided in Figure F-1. This figure, in block diagram format, begins with the initial review by the primary review groups as identified in Figure D-1, and presents the process through the ultimate closure of the review packages. In some cases, closure includes the MP&L receipt, review, and acceptance of NRC granted changes to the technical specifications.

This overall process is implemented principally by an administrative procedure, especially developed for the Review Program. Existing administrative procedures will be used to the maximum extent practical where the Review Program interfaces with ongoing Nuclear Production Department activities. Control of FSAR changes and the processing of proposed changes to the operating license are examples of such instances.

2. Technical Specification Review and Review of Previously Identified Items

The group review activities are discussed in Section D. In general, the specifications have been divided into three general areas and a review group assigned to each area. Specifications are assigned to each group according to an approved division of responsibility. The results of the group review consists of a documentation package on each assigned specification with any potential problems identified. This package, is then forwarded to the RPD Group for further processing. The RPD Group will review the package, regardless of the absence or presence of discrepancies identified by the primary review group.

To take proper advantage of other reviews currently in progress or completed since MP&L's Surveillance Procedure Task Force effort, all known outstanding items have been entered on the master punchlist for review and processing. These items originated from reviews by MP&L and NRC and will be subjected to the same criteria that is applied to any item identified in the current Review Program. Items determined to involve a

potential technical specification change will be assigned an appropriate priority by the RPD Group and processed along with those items identified in the Review Program.

3. Review, Prioritization, and Direction Group Activities

The primary functions of the RPD Group are to: (1) evaluate findings forwarded to it, (2) assign priority to potential changes to the specifications, (3) direct necessary corrective action, and (4) concur with findings or adequacy of completed or proposed corrective actions.

Upon evaluation of a documentation package (or item identified from outside source), the RPD Group has the following general options to select:

- (1) Concur that no discrepancies exist which require additional actions; recommend closure to Project Manager.
- (2) Find that a potential specification change is warranted, assign priority, and transmit package to Nuclear Safety & Compliance for development of justification and significant hazards consideration (SHC) evaluation.
- (3) Determine that additional engineering or licensing support is required. This assistance is provided by normal organizations within MP&L's Nuclear Production Department.

Examples of such assistance are additional safety or engineering analyses, FSAR changes, procedure revisions, etc. All such actions are documented and tracked to closure.

Overall, all resolution of problems/concerns are reviewed by the RPD Group. Even the case where a technical specification change is requested and eventually granted by the NRC, the operating license amendment is reviewed by the RPD Group to ensure that the original concern was properly addressed. This activity is required for closure of the specification's review package.

It should be noted that it is not MP&L's intention to maintain the Review Program's project team activated during operations above 5% power. For this reason, specification changes assigned a long term priority will be processed by normal means, utilizing currently existing procedures for changes to the technical specifications. Adequate closure documentation will be established in all cases.

4. Processing of Potential Technical Specification Changes

Once a potential specification change is identified, the development of a "Proposed Change to the Operating License"

(PCOL) package is initiated. The initial step here is to generate proper "marked up" pages of the affected current technical specification(s) and to develop adequate justification for the proposed change. Justification development includes an evaluation of the Significant Hazard Consideration (SHC), in accordance with 10CFR 50.92. Except for the development of preliminary working information, for use in initial discussions with the NRC, this process of PCOL package development is addressed entirely in existing administrative procedures.

As shown in Figure F-1, with the development of the proposed change's justification, MP&L will request an informal discussion and tentative agreement, if possible, with NRC Staff representatives on the proposed change. This step is primarily to agree on the significance of the item, the assignment of proper priority, and adequacy of justification.

If MP&L and the NRC concur that the change requires processing prior to exceeding 5% power, then the PCOL will be processed and formally submitted without delay. The PCOL review process includes formal safety committee review (Plant and Corporate). If the subject change is agreed upon to have a longer term priority, it will be processed in a timely manner, according to an NRC/MP&L mutually agreeable schedule.

5. Closure

As discussed in Sections F.1 and F.3 above, closure documentation packages are developed for all specification sections. The package will include a record of corrective actions directed and accepted by the RPD Group. For corrective actions incomplete at the time of package closure, a record of the tracking mechanism accepted by the RPD Group will be included. All closure packages will be reviewed by the Project Manager.

G. MP&L/NRC Interface

As discussed with the NRC Staff in the meeting held March 9, 1984, MP&L has taken immediate steps to provide optimum support of the NRC Staff review associated with this program. For the duration of the Review Program, MP&L will staff a local Bethesda, Maryland office with two full-time MP&L employees from the Nuclear Services Department. This staff, representing MP&L's safety and licensing organizations, will be supported, as necessary, by engineering and operations personnel to respond to NRC questions and concerns.

MP&L proposes daily working meetings with the NRC Project Manager and principal staff reviewers to support expeditious problem resolution and to maintain effective communications on the status of MP&L and NRC efforts. These meetings should also provide a convenient means for bringing high priority items to the NRC's immediate attention. Weekly meetings are proposed to provide

proper NRC/MP&L communications at a management level and also to efficiently utilize specific expertise, as required, to resolve problematic items.

As indicated in Figure F-1, MP&L intends to provide the NRC preliminary information regarding potential specification changes. This is the responsibility of MP&L's Bethesda office. By this means it is MP&L's objective to involve the NRC, as soon as possible, in the decision making process, as it relates to the evaluation of safety significance and priority assignment.

MP&L will provide, as a management tool, the master punchlist of potential specification changes on an informal basis and on a frequency acceptable to the NRC Project Manager. Other information, such as anticipated section review schedules, will be provided to the NRC, as requested, to support their review.

H. Schedule

The Review Program essentially began the week ended March 2, 1984, with the finalization of review scope and criteria, commencement of the lead organization review, and the prioritization of items known to date. The program has been estimated to require a total of five weeks. At the end of this period, all high priority items will have been discussed with the NRC and the majority of these will have been formally submitted as proposed technical specification changes. By that time the NRC and MP&L will have also discussed all other possible specification changes identified in the review (or previously known) and will have agreed that a longer term submittal schedule is appropriate. Figure H-1 presents the program's schedule, including principal milestones.

MP&L will respond to the NRC letter on this matter (Eisenhut to Richard, dated February 24, 1984) no later than the conclusion of the program's fifth week, i.e., April 9, 1984.

I. Summary

The program described here is considered to be a thorough, quality, and safety conscious review, fully responsive to recent NRC concerns surrounding the Grand Gulf technical specifications. Substantial resources have been dedicated to support this program and accomplish its goals.

To realize the program objectives, MP&L requests the cooperation and support of the NRC Staff. The program and project organization have been developed with the goal of achieving agreement between MP&L and the NRC at critical points in the effort. The program plan and overview were presented to the NRC Staff on March 9, 1984. Initial efforts to agree on priority assignments began the week of March 12, 1984. Steps such as these and, in general, a close working relationship and dedication of resources are required to ensure a timely and efficient execution of the program.

Overall, providing the dedication and efficient use of resources and effective communication between the NRC and MP&L, this Review Program will meet schedule objectives and yield the necessary assurance that the Grand Gulf technical specifications are adequate and accurate, that is, consistent with the plant's design basis and sufficient to support safe operation.

TABLE E-1
TECH SPEC PROBLEM SHEET PRIORITY DEFINITIONS

1. Problems Needing Resolution - Short Term
 - A. Safety Significant Items which would require plant shutdown, prohibit plant startup, or require other plant actions to reestablish safe operating conditions.
 - *B. Existing Tech Spec is non-conservative with respect to FSAR or supporting documents (e.g., approved design specs, SER, etc.). MP&L requires NRC concurrence and resolution prior to next criticality.
 - *C. Existing Tech Spec is non-conservative with respect to FSAR or supporting documents (e.g., approved design specs, SER, etc.). MP&L requires NRC concurrence and resolution prior to exceeding 5% Thermal Power.
 2. Problems/Enhancements Needing Resolution - Long Term
 - A. Existing condition could result in unnecessary challenges to safety systems or plant transients or is required to enhance plant safety.
 - B. Errors or confusing items in Technical Specifications which will not result in non-conservative operation with a reasonable dependence on administrative controls/plant knowledge/operational practices; Licensing commitments which require a Tech Spec change; items determined by MP&L to be important.
 - C. Could restrict power level or mode changes.
 - D. Typographical Errors and Enhancements/Concerns which do not fall into a higher priority.
 - E. Problems with, or enhancements to Tech Spec sections other than 3/4 (e.g., Administrative Controls, Bases, etc.).
 - F. Over-conservative Tech Specs for which changes are cost-justified.
- * The factors used to distinguish priorities 1B and 1C are operational mode requirements (generally Mode 2 requirements are associated with priority 1B and Mode 1 with priority 1C), fission product inventory considerations (generally priority 1B do not involve dealing with high fission product inventories while priority 1C which is associated with higher power levels may involve dealing with high fission product inventories), and relative safety significance of systems.

TABLE E-1 (Continued)

- G. Design Changes which require Tech Spec changes.
 - H. Pending design/analysis (e.g., Maximum Extended Operating Domain, Exxon Fuel, Single Recirc Loop Operation, etc.).
 - I. Others.
3. Tech Spec change not justified.
- A. Item is generic and not included in STS.
 - B. Others.

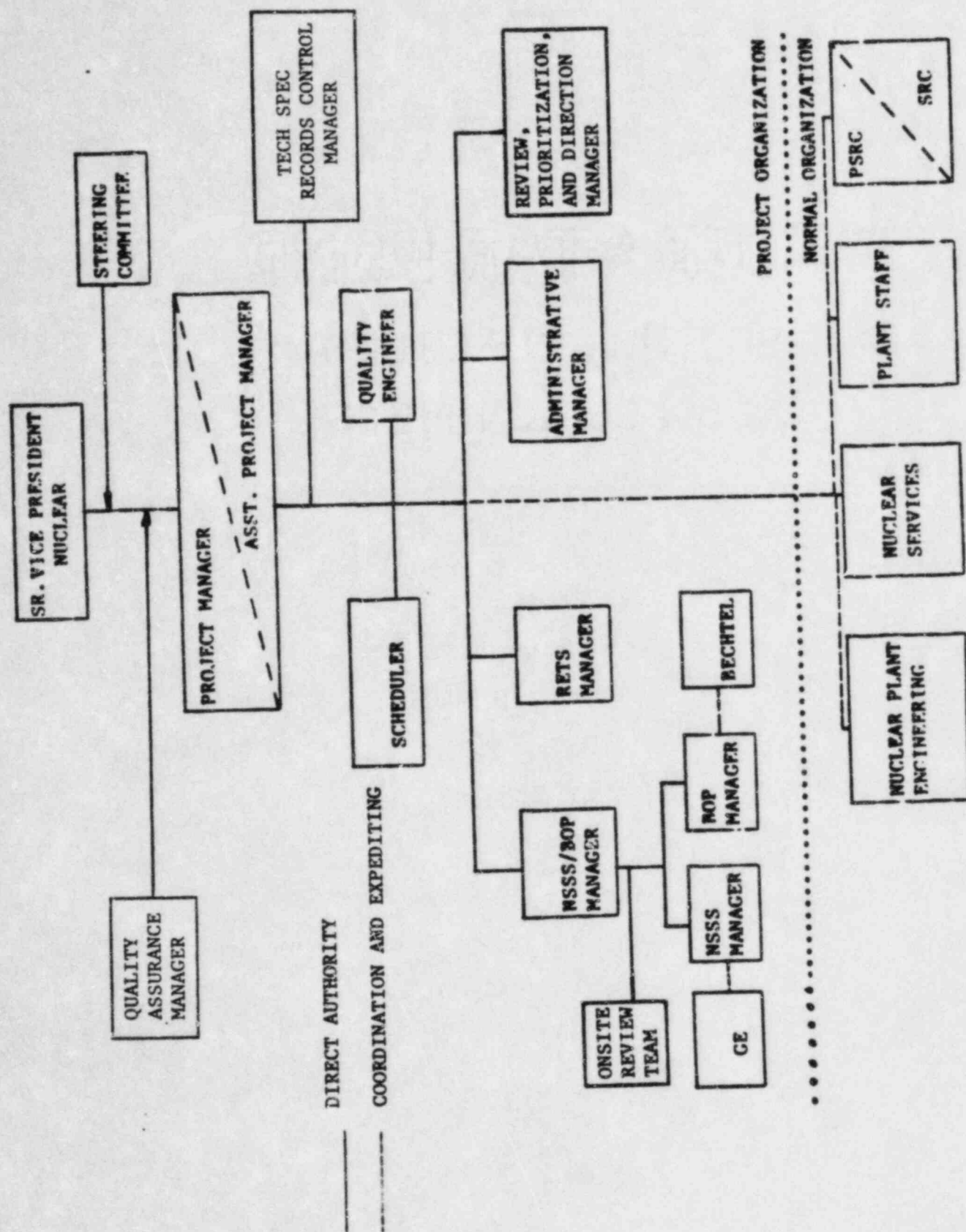
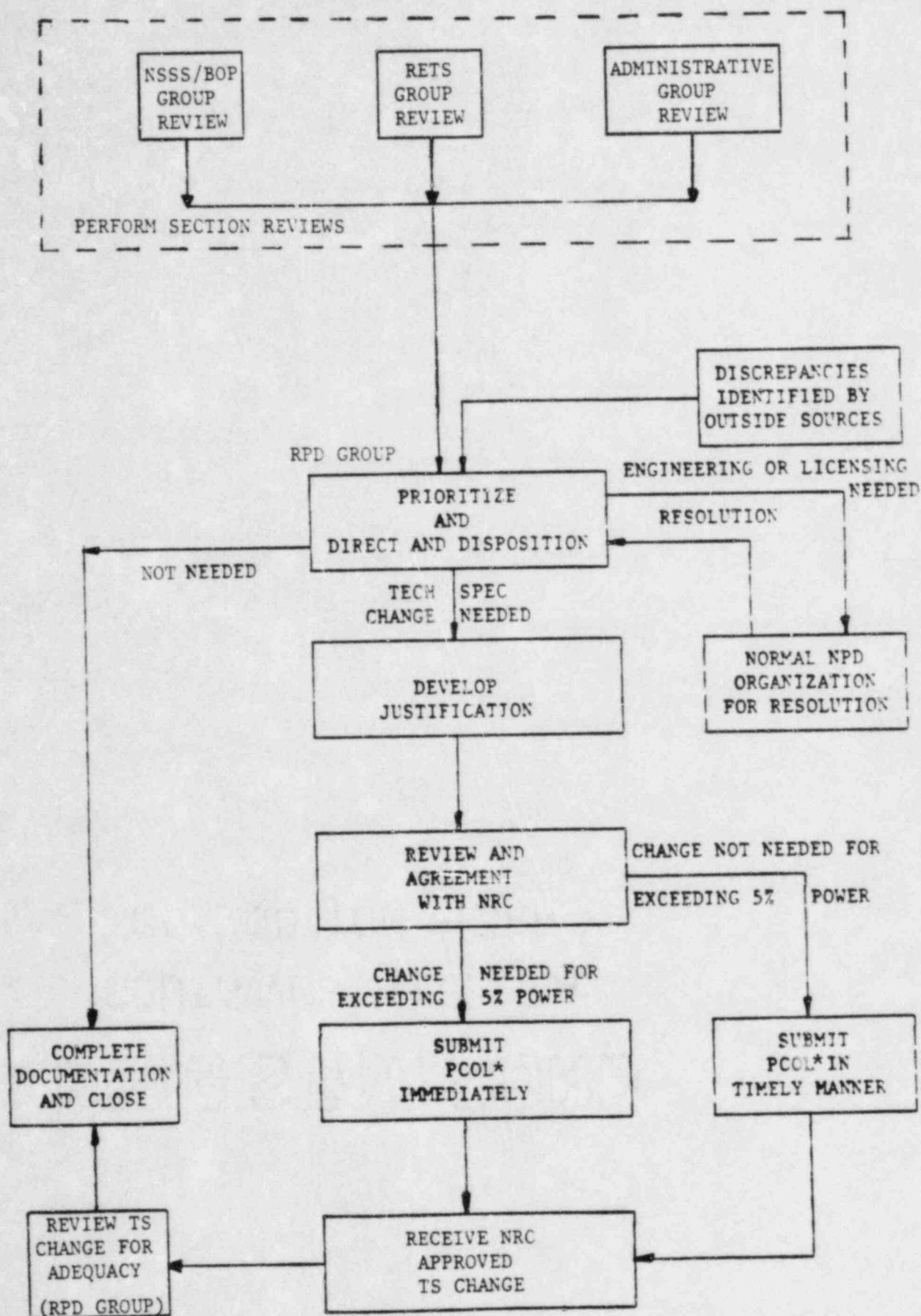


FIGURE D-1: Review Organization

FIGURE F-1: Review and Closure Process



*Proposed Change to the Operating License

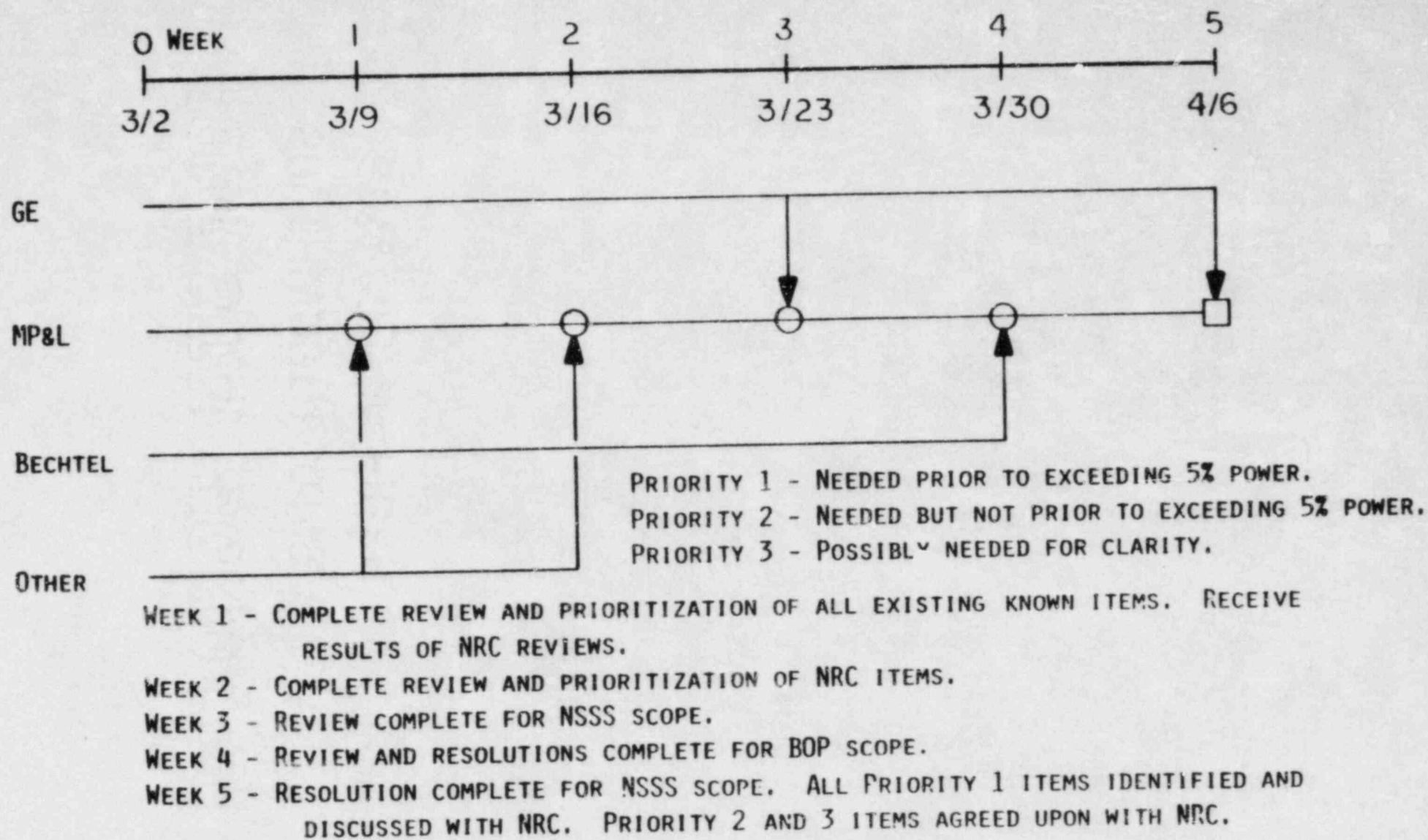


FIGURE H-1: Review Program Schedule