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Dalwyn R. Davidson
VICE PRESIDENT
SYSTEM ENGINEERING AND CONSTRUCTION

April 29, 1982



Mr. A. Schwencer
Chief, Licensing Branch No. 2
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Perry Nuclear Power Plant
Docket Nos. 50-440; 50-441
Response to Request for
Additional Information -
Management Organization

Dear Mr. Schwencer:

This letter transmits revised responses to our March 22, 1982, letter regarding the questions posed by the NRC Licensee Qualification Branch on the Perry Nuclear Power Plant Site and CEI Corporate organization.

It is our intention to incorporate these revised responses in a subsequent amendment of Chapter 13 to our Final Safety Analysis Report. An amended Chapter 13 will be transmitted to you as soon as it is completed.

Very Truly Yours,

Dalwyn R. Davidson
Vice President
System Engineering and Construction

DRD: mlb

cc: Jay Silberg
John Stefano
Max Gildner
Eric Pedersen

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Action Item 2: (Revised)

Availability of Operating Nuclear Power Plant
Experience in Plant Management in Operations Areas

Response

A person with operating nuclear power plant experience will be obtained in either an advisory capacity or integrated into the plant organization as Superintendent , Plant Operations for at least one year in advance of fuel load. This person will serve as a member of the Plant Operation Review Committee, and if not a permanent member of the Plant Staff, will remain in place at least for 12 months following fuel load. This management advisor will meet ANSI 3.1-1978 qualifications for a technical section supervisor or operations supervisor. The advisor will have had prior experience at a supervisory level at a commercial operating nuclear power plant in a position such as Lead Start-Up Engineer, Start-Up Manager, technical section supervisor or operations supervisor.

In addition, each operating shift will have a person with commercial BWR start-up experience assigned to it for a minimum period of one year following fuel load for Perry 1.

Action Item 3: (Revised)

Letter of Commitment on the Reorganization
Plan for PNPP

Response

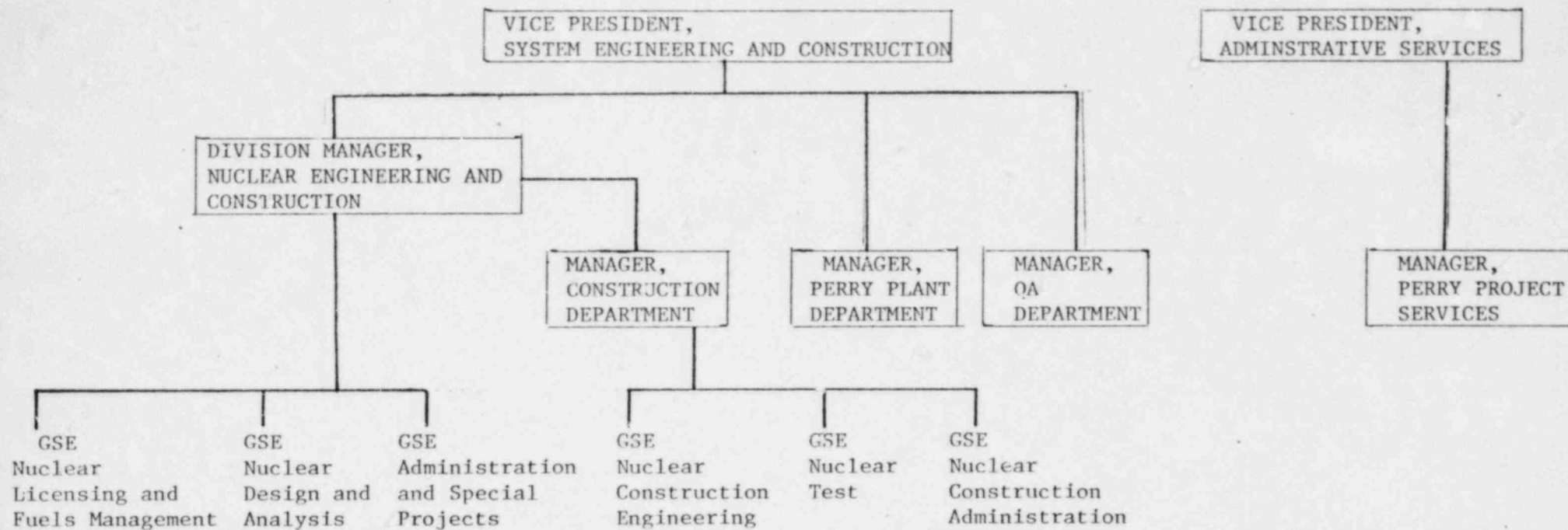
During a January 25, 1982, oral presentation to the NRC Management Audit Team, Managers of the PNPP Site Organization described current and future plans for the Site Organization. Described below are steps taken since the January audit as well as future plans to complete a full site reorganization to separate functions related to start-up and operation of Perry 1 from functions related to construction of Unit 2 six months prior to fuel load.

Several major changes have already occurred which respond to NRC and CEI concerns:

1. On February 15, 1982, the Nuclear Project Training Section was formed as a new section within the Perry Project Services Department. The objective of the newly established Section is to provide total site training coordination to insure that the PNPP Project is staffed with trained, qualified individuals capable of supporting, maintaining and operating the Perry Plant.
2. As of March 12, 1982, the Nuclear Engineering Department's position of General Supervising Engineer (GSE), Nuclear Design and Analysis has been split to form two GSE positions: GSE, Nuclear Construction Engineering section; and GSE, Nuclear Design and Analysis section. The attached organization chart shows the changes which have occurred.
3. On April 21, 1982, additional changes were announced with the reorganization effective on May 1, 1982:
The Nuclear Engineering and Construction Division and the Nuclear Construction Department in that Division were formed. The Nuclear Engineering Department was discontinued and the Nuclear Construction Section was renamed the Nuclear Construction Administration Section, Nuclear Construction Department. Certain section reporting responsibilities changed as shown in the attached organization chart.

In summary, all proposed organizational changes discussed on January 25, 1982, have been implemented at PNPP with the exception of the commitment to provide a Vice President solely responsible for nuclear activities. This commitment will be implemented 6 months prior to fuel load for Unit 1.

CHANGES TO THE NUCLEAR ENGINEERING DEPARTMENT SINCE THE JANUARY REVIEW:
DEPARTMENT ORGANIZATION AS OF MAY 1, 1982



Action Item 5: (Revised)

Adequacy of Plant Staffing Levels

Response

The proposed plant staffing has been reviewed as a result of additional commitments made to provide on shift an Instrument and Control Technician, a Shift Technical Advisor, a goal of six operating shifts and the consolidation of training in a separate organizational element. Thus, the total staffing expected at fuel load for Unit 1, is as follows:

<u>Perry Plant Department</u>	<u>Units 1 and 2</u>	<u>Unit 1</u>
Management	3	3
Maintenance	155	85
Operations	101	63
Technical	82	53
Radiation Protection	56	43
Services	52	42
Security	8	8
TOTAL	457	297

Other Project Organization Department Staffing, Fuel Load, Unit 1

Nuclear Engineering Department	115
Quality Assurance Department	---
Management	2
Training and Administration	42
Audit	10
Construction Quality Assurance	79
Operations Quality Assurance	17
TOTAL	150
Construction Department	400
Perry Project Services	100

The Perry Plant Department Training unit will be consolidated under the Nuclear Project Training section at fuel load for Unit 1. Thus, the staffing level of the Perry Project Services Department, Nuclear Project Training Section will be about 20-22 personnel at fuel load for Unit 1. The Nuclear Engineering Department, which includes the Independent Safety Engineering Group, has been recently reorganized (see revised response to Action Item 3) to fully support, on site, the operation of Unit 1. The new Nuclear Construction Department (see revised response to Action Item 3) will assume responsibility for Construction Engineering, Construction Administration, and Pre-Operational Testing. Operational Quality Assurance will be a separate reporting function with both QA and QC responsibilities at fuel load of Unit 1; the projected staff of 17 will be devoted exclusively to support of Unit 1 operation.

The above staffing does not include security personnel outside of the supervisory personnel.

The staffing described here provides for meeting all commitments for on-shift personnel without excessive reliance upon overtime in routine operation. Extensive provision for training time is included, and adequate numbers of entry-level personnel will ensure fully trained skills will be available as required as construction progresses and Unit 1 is completed.

630.13
(13.2.3)
(Revised)

Expand the description of the initial fire brigade described in Section 13.2.5.1.

Response

A fire brigade consisting of a licensed Senior Reactor Operator who functions as the brigade leader, a Plant Operator (AO), an Instrument and Controls Technician, and two Security personnel will be available on all shifts. The fire brigade members will have no duties during a fire except those directly related to manual fire-fighting. Prior to assignment to the fire brigade and annually thereafter, each member will receive a physical examination that will ensure that no physical condition exists that would prevent proper performance of strenuous fire-fighting activities.

The fire brigade will be equipped with sufficient quantities of personal protective equipment, manual suppression equipment and other equipment necessary for effective fire-fighting. Equipment will meet criteria stipulated in 10CFR Part 50, Appendix R, Section h(1)(2)(3).

The fire brigade training program provides for classroom training, practice sessions and drills. The fire brigade training program will meet criteria stipulated in 10CFR Part 50, Appendix R, Section I. A sufficient number of on-shift personnel will receive the same basic training and retraining as that received by the fire brigade. These on-shift personnel will be available and trained to assist or replace designated members of the fire brigade as necessary.

630.18
(13.4)
(revised)

NUREG-0737 Section I.B.1.2 established the requirement for an Independent Safety Engineering Group. Present your plans for complying with this requirement.

Response

The Perry Nuclear Power Plant will have an on-site Independent Safety Engineering Group (ISEG) which will meet the intent of NUREG 0737, I.B.1.2.

The ISEG will form a part of the Nuclear Engineering Department. The group will be staffed by engineers and other technically oriented personnel, all of whom will have qualifications comparable to the requirements set forth in ANSI/ANS 3.1, Sections 4.1 and 4.2 (December 1981). The staff will consist of 5 individuals from Mechanical, Electrical, Chemical/Environmental and Quality Assurance disciplines, one of who will be designated as chairman. The chairman of the ISEG will report directly to the Manager of Nuclear Engineering Department.

The ISEG will be a full time dedicated organization. At any given time, five individuals will be assigned to the ISEG; however, the individuals will serve on a rotational basis with a minimum assignment of at least 3 months and nominally for one year.

The charter of the ISEG will include the following scope:

1. The principal function of the ISEG is to examine plant operating characteristics, NRC issuances, LIS advisories, and other functions of design and operating experience information that indicate areas for improving plant safety.
2. The ISEG is to perform periodic, independent review of plant activities including maintenance modifications, operational problems and operational analyses.

As deemed necessary by the ISEG, detailed recommendations regarding improvements will be presented to management.

3. Periodic surveillance of operations and maintenance audits will be conducted to verify that these activities are performed correctly. These activities do not include detailed audits of plant operations; but rather, represent an overview function.
4. The ISEG will evaluate the effectiveness of the operational Quality Assurance program independent of normal functions of the Quality Assurance Department.

Nuclear Engineering Department procedures will be developed to assure that the requirements of the charter and the intents of NUREG 0737 are met.

Item No. 1.A.1.2

Shift Supervisor Administrative Duties

REQUIREMENT

Review the administrative duties of the shift supervisor and delegate functions that detract from or are subordinate to the management responsibility for assuring safe operation of the plant to other personnel not on duty in the control room.

RESPONSE

Administrative procedures will be clearly written to define the shift supervisor's command and control responsibilities and authorities and to emphasize his responsibility for safe operation of the plant. Those functions which clearly detract from the shift supervisor's responsibility for assuring safe operation of the plant will be assigned to other personnel, not directly responsible for reactor operations.

Item No. I.C.2

Shift Relief and Turnover Procedures

REQUIREMENT*

The licensees shall review and revise as necessary the plant procedure for shift and relief turnover to assure the following:

1. A checklist shall be provided for the oncoming and offgoing control room operators and the oncoming shift supervisor to complete and sign. The following items, as a minimum, shall be included in the checklist.
 - a. Assurance that critical plant parameters are within allowable limits (parameters and allowable limits shall be listed on the checklist).
 - b. Assurance of the availability and proper alignment of all systems essential to the prevention and mitigation of operational transients and accidents by a check of the control console.

(what to check and criteria for acceptable status shall be included on the checklist);
 - c. Identification of systems and components that are in a degraded mode of operation permitted by the Technical Specifications. For such systems and components, the length of time in the degraded mode shall be compared with the Technical Specifications action statement (this shall be recorded as a separate entry on the checklist).
2. Checklists or logs shall be provided for completion by the offgoing and ongoing auxiliary operators and technicians. Such checklists or logs shall include any equipment under maintenance or test that by themselves could degrade a system critical to the prevention and mitigation of operational transients and accidents or initiate an operational transient (what to check and criteria for acceptable status shall be included on the checklist); and
3. A system shall be established to evaluate the effectiveness of the shift and relief turnover procedure (for example, periodic independent verification of system alignments).

*This "REQUIREMENT" is taken from D. B. Vassallo's letter dated 11/9/79 to all licensees of plants under construction since it was not provided in detail in either NUREG-0660 or NUREG-0737.

RESPONSE

Checklists and/or logs will be provided for the control room operators and shift supervisor. The checklists and/or logs will include items such as critical parameters, control console checks for availability and proper alignment of systems essential to the prevention and mitigation of operational transients and accidents and the identification of degraded systems or components (including time in degraded mode) that are addressed by Technical Specifications. Auxiliary operators will review plant status by log reviews. An administrative procedure will address the conduct of shift turnover.

Item No. I.C.3

Shift Supervisor Responsibilities

REQUIREMENT

Issue a corporate management directive that clearly establishes the command duties of the shift supervisor and emphasizes the primary management responsibility for safe operation of the plant. Revise plant procedures to clearly define the duties, responsibilities and authority of the shift supervisor and the control room operators.

RESPONSE

A corporate management directive will be issued establishing the command duties of the shift supervisor that emphasizes the primary management responsibility for safe operation of the plant. Plant administrative procedures will define the duties, responsibilities and authority of the shift supervisor and control room operators.

Item No. I.C.5

Procedures for Feedback of
Operating Experience to Plant Staff

REQUIREMENT

Review administrative procedures to ensure that operating experience from within and outside the organization is continually provided to operators and other operational personnel and is incorporated in training programs.

RESPONSE

PNPP will participate in the INPO SEE-IN program. Procedures will be implemented to ensure that all Significant Operating Experience Reports (SOER's) and Significant Event Reports (SER's) are distributed for review, and recommendations for corrective actions appropriate to PNPP are provided to plant staff personnel and incorporated into the training program.

Item No. I.C.6

Guidance on Procedures for Verifying Correct Performance of Operating Activities

REQUIREMENT

It is required (from NUREG-0660) that licensees' procedures be reviewed and revised, as necessary, to assure that an effective system of verifying the correct performance of operating activities is provided as a means of reducing human errors and improving the quality of normal operations. This will reduce the frequency of occurrence of situations that could result in or contribute to accidents. Such a verification system may include automatic system status monitoring, human verification of operations and maintenance activities independent of the people performing the activity (see NUREG-0585, Recommendation 5), or both.

Implementation of automatic status monitoring if required will reduce the extent of human verification of operations and maintenance activities but will not eliminate the need for such verification in all instances. The procedures adopted by the licensees may consist of two phases--one before and one after installation of automatic status monitoring equipment, if required, in accordance with item 1.D.3.

RESPONSE

The PNPP has committed to compliance with Reg. Guide 1.47, "Bypassed and Inoperable Status Indication for Nuclear Power Plant Safety Systems." In addition procedures will be developed which require the approval of the Unit Supervisor (SRO) to release any system or equipment important to safety for maintenance or surveillance. The approval of the Unit Supervisor will also be required to return any equipment important to safety back into service. Procedures will also be developed to verify and document the functional acceptability of any equipment returned to service which is important to safety. For the return-to-service of ECCS Systems, independent verification of proper systems alignment will be made unless functional testing can be performed without compromising plant safety and can prove that all equipment, valves, and switches involved in the activity are correctly aligned.