



Vogtle Project

April 18, 1986

Mr. D. O. Foster
Vice President
Vogtle Project Support
Waynesboro, Ga. 30830

RE: Readiness Review Program
Module 18B
Fire Protection

LOG: RR-855

FILE: X7BD102

Dear Mr. Foster:

Pursuant to your instructions I am enclosing Module 18B of the Readiness Review Program entitled Fire Protection. This module reports the work of the Readiness Review Team including commitment implementation and an assessment of the activities of the Vogtle Project Fire Protection Task Force (FPTF).

The objective of the Commitment Implementation Assessment was to determine whether licensing commitments for Fire Protection have been appropriately included in project documents. The objective of the assessment of the FPTF was to determine whether the oversight activities of the FPTF are adequate in scope to ensure that the necessary elements of fire protection are being properly addressed by the Project.

The results of the Commitment Implementation Assessment indicated that the project documentation included the identified commitments with the exception of two cases. Both cases were of minor significance. Details of the Commitment Implementation Assessment and the associated findings are presented in section 3 of the module.

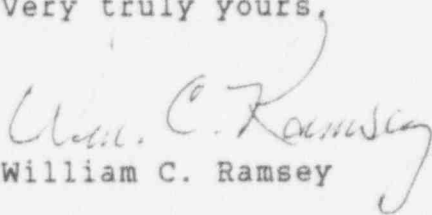
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The results of the assessment of the FPTF activities indicated that the FPTF has been deeply involved in the overview of the Vogtle fire protection program. Individuals were keenly aware of current industry problems and action necessary for satisfactory project completion. However, the Readiness Review Team offered several recommendations to the FPTF to further enhance their activities to provide added assurance for successful program results. These recommendations and associated project responses are provided in Section 4 of this module.

Based on the reviews presented in this module we are confident that the Vogtle fire protection program, within the scope of this module, has adequate oversight by the FPTF. The current activities by the FPTF and those enhancements as discussed in Section 4 will further ensure that the fire protection provisions for Plant Vogtle will meet design requirements and licensing commitments.

Members of the Readiness Review Team and I are prepared to discuss this module with you at your convenience. If we can provide you with any further information or assistance regarding this matter, contact me.

Very truly yours,


William C. Ramsey

WCR/dah

cc: R. E. Conway
Readiness Review Board Members
Reading File
Document Control

VOGTLE ELECTRIC GENERATING PLANT

UNIT 1

READINESS REVIEW

MODULE 18B - FIRE PROTECTION

Readiness Review - Module 18B

List of Effective Pages
April 24, 1986

Page

Revised Date

All pages unchanged

PREFACE

Georgia Power Company (GPC), in order to gain added assurance of the operational readiness of the Vogtle Electric Generating Plant (VEGP), is conducting a pilot Readiness Review Program. The VEGP pilot Readiness Review Program is a systematic, in-depth self-assessment of work processes and verification of compliance with regulatory commitments. To accomplish the VEGP pilot Readiness Review Program, the work processes and regulatory commitments were divided into manageable segments called modules. There are approximately 20 modules. Each module is a predefined scope of VEGP activities.

Each module is intended to provide a brief description of the method of complying with project licensing commitments pertaining to the module scope and is not intended to make further commitments or to revise in any way prior commitments. If any differences exist between the commitments discussed in this document and the licensing documents, they are unintentional; and the licensing document governs.

Activities common to several modules are provided as General Appendixes. There are approximately 10 appendixes. These appendixes, as appropriate, are referenced in the modules and are augmented in each module with module-scope-specific details as needed.

The VEGP Readiness Review Program is being conducted on a schedule to provide added operational readiness assurance to GPC management in support of the VEGP Unit 1 operating license. However, conclusions reached regarding programmatic and technical adequacy through review of VEGP Unit 1 are indicative of Unit 2, since both units are being designed and constructed together under a single quality assurance program; with like management controls, procedures, etc.; and to the same specifications and criteria.

Stone and Webster Engineering Corporation has been contracted to provide technical management for, and technical personnel to implement, the independent design review as a part of the Readiness Review program.

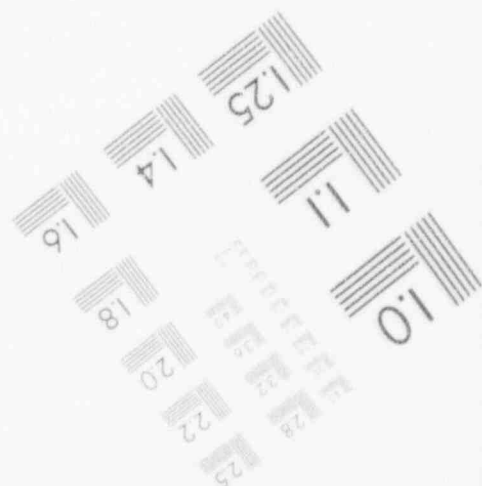
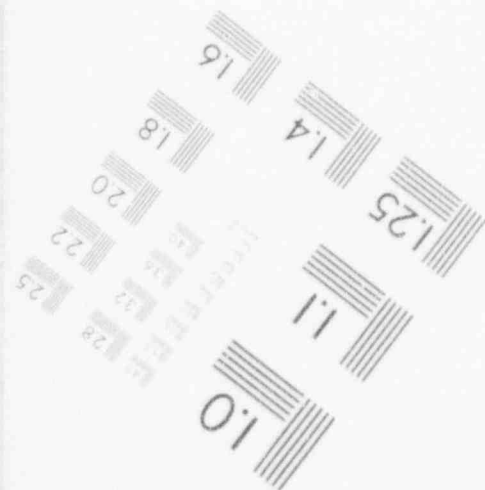
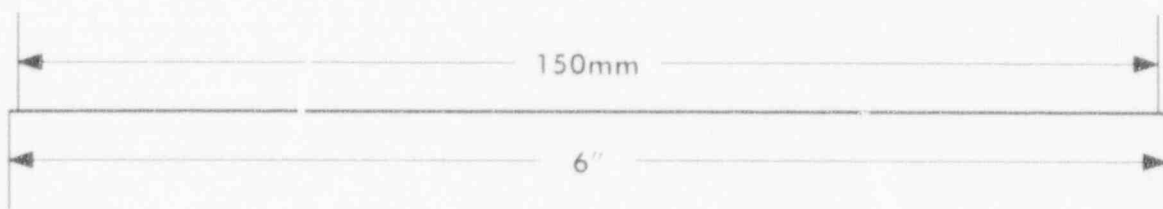
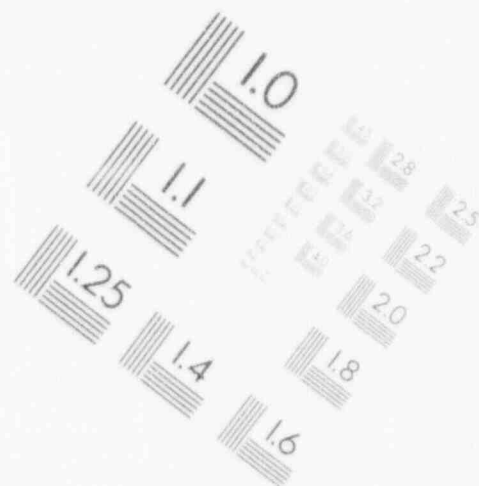
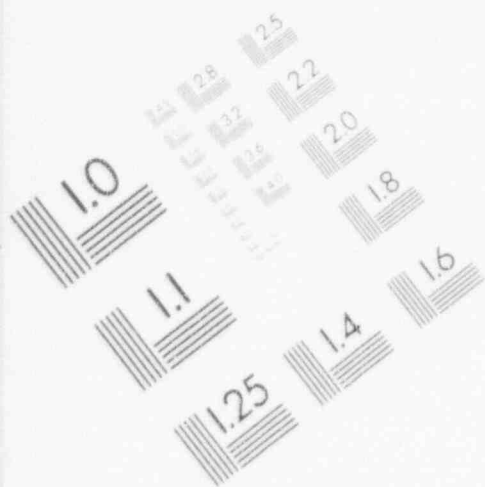
The VEGP Readiness Review Program is not intended to eliminate or to diminish any authorities or regulatory responsibilities now assigned to or exercised by the Nuclear Regulatory Commission or GPC. Further, the Readiness Review Program is not intended to change the techniques of inspections or assurance of quality program activities. Rather, the VEGP Readiness Review Program is an added program initiated by GPC management to assess the VEGP and to provide additional feedback to management so that they may initiate any needed corrective actions in an orderly and timely manner.

The scope of work processes and regulatory commitment compliance covered by each module will be assessed by, and the module prepared and reviewed by, individuals collectively familiar with the design, construction, and operational processes of nuclear power plants. It is the collective opinion of the Readiness Review Task Force, Readiness Review Board, and GPC management that, based on their experience, the methodology used in the module process will assess, on a programmatic basis, the adequacy of project commitment implementation.

Readiness Review Discrepancy Reports and resulting dispositions are reviewed by the Readiness Review Program quality assurance staff and are input into the normal project process for safety significance and potential reportability evaluations in accordance with regulatory requirements.

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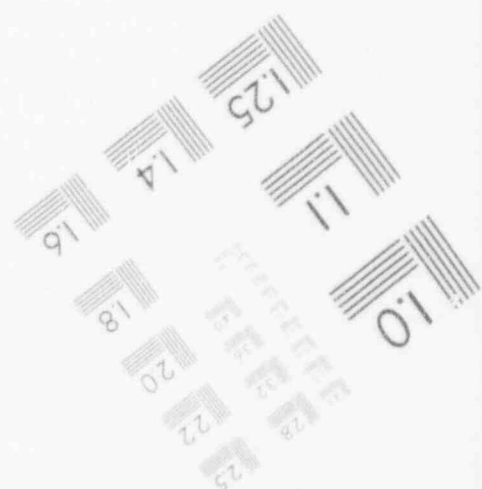
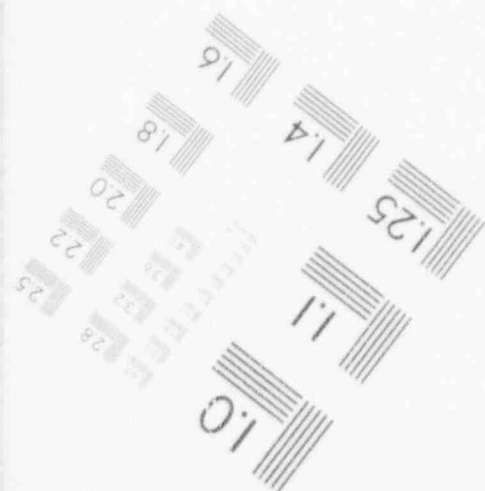
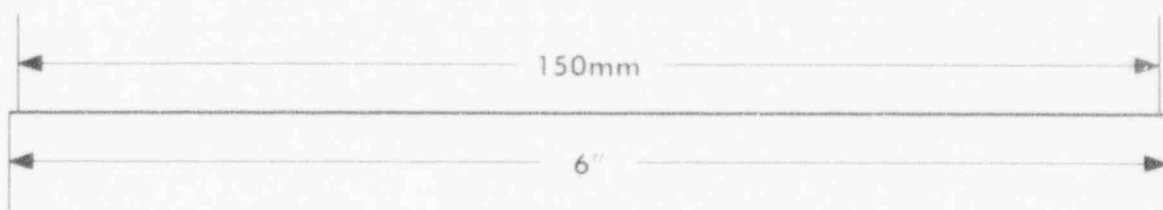
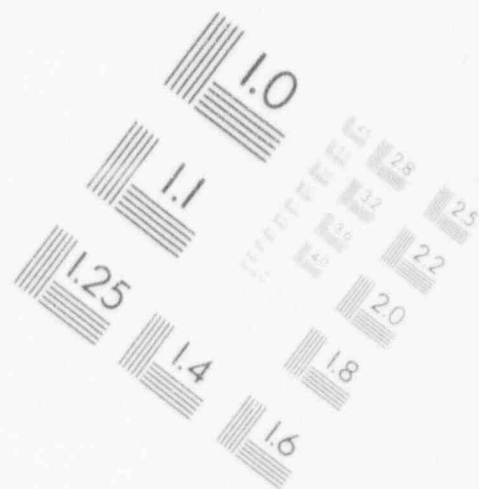
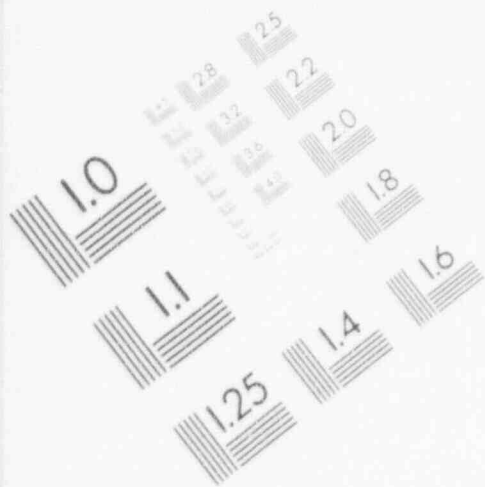
IMAGE EVALUATION TEST TARGET (MT-3)



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1.0 INTRODUCTION

1.1 SCOPE

During the evolution of plant design, the project management of Plant Vogtle recognized the extensive interdisciplinary and interorganizational ramifications of implementing fire protection requirements in a nuclear facility. Approximately 12 months ago, project management mandated the formation of a task force to ensure compliance with prevailing licensing requirements and industry-accepted standards relating to fire protection. Its ultimate goal was to ensure the implementation of a design capable of safe plant shutdown under postulated fire conditions.

In light of the comprehensive scope of the Fire Protection Task Force (FPTF) oversight activities and of the substantial commitments of resources by the Project to carry out these activities, the Readiness Review Program has limited its review of fire protection to two areas:

- A. Review of FSAR licensing commitments keyed to their implementing documents. This review included commitments through FSAR Amendment 19.
- B. Review of the composition, responsibilities, and activities of the FPTF to assess its potential of achieving its intended function. The effective date of this review was February 15, 1986. Relevant changes, if any, occurring after this date were not included.

1.2 ORGANIZATION

This module is divided into the following sections:

- 1.0 Introduction.
- 2.0 Fire Protection Task Force Program Description - A brief description of the Vogtle FPTF and their activities applicable to the Vogtle fire protection program is presented.
- 3.0 Commitment Implementation Assessment - This section contains project licensing commitments pertaining to fire protection within the scope of this module, as found in the Final Safety Analysis Report (FSAR), Generic Letters, and other documents. This section also lists documents that demonstrate inclusion of these commitments in project design criteria, specifications, procedures, etc.

- 4.0 Fire Protection Task Force Program Assessment - This section contains the evaluation of the FPTF program and recommendations by an independent Readiness Review Team.
- 5.0 Module Assessment - This section includes an evaluation and conclusions by the VEGP Readiness Review Program Quality Assurance Staff, Readiness Review Board, and design engineering management. In addition, this section contains a listing of finding items (sections 3 and 4) still open and requiring project resolution. Resumes of Readiness Review Team members involved in the development of this module are also presented.

2.0 FIRE PROTECTION TASK FORCE PROGRAM DESCRIPTION

The VEGP Fire Protection Task Force (FPTF) was formed to ensure project compliance with the guidelines of Nuclear Regulatory Commission (NRC) Branch Technical Position (BTP) CMEB 9.5-1, the fire protection codes as described in the FSAR, and other related licensing commitments. This section provides a brief description of the FPTF objectives, organization, and activities.

2.1 FPTF OBJECTIVE

The objective of the FPTF is to provide oversight and evaluation of the Vogtle fire protection program to ensure that the design, construction, and operational aspects of Plant Vogtle are adequate to mitigate significant fires and that the safe plant shutdown capability will not be adversely affected by postulated fires.

2.2 FPTF ORGANIZATION AND RESPONSIBILITIES

2.2.1 ORGANIZATION

The FPTF is organized under the auspices of the vice president - project engineering. (See Figure 2-1.) The task force members are representatives of the following project functional organizations, which have controlling fire protection responsibilities:

- o Project management.
- o Georgia Power Company (GPC) (Nuclear Operations Department).
- o GPC (Construction Department).
- o Southern Company Services (Design Engineering).
- o Bechtel Power Corporation (BPC) (Design Engineering).
- o Project Licensing.

The FPTF performs work on an audit and overview basis, as opposed to a detailed point-by-point review. The task force provides general review and guidance for the responsible line organizations. It establishes project positions and guidance with appropriate project engineering management approval but does not perform actual work except for reviews. Task force guidance is promulgated to each responsible line organization by its FPTF member, as shown in the organization chart in Figure 2-1.

In summary, each member obtains information from his line organization, brings that information and his experience to the FPTF, collectively establishes/obtains the task force's direction, and then provides guidance to his organization for implementation of that direction.

2.2.2 RESPONSIBILITIES

2.2.2.1 Overall FPTF Responsibilities

The FPTF is responsible for ensuring that those aspects of the VEGP fire protection program outlined in section 2.3 are adequately addressed and implemented. The FPTF is also responsible for overseeing the identification, resolution, and justification of licensing deviations and project positions related to fire protection issues identified by or referred to the FPTF. This is accomplished through task force reviews of applicable criteria and commitments and associated project policies and procedures.

2.2.2.2 Individual FPTF Members' Responsibilities

The individual project work activities presented on the fire protection program schedule (FP-100) are identified and organized in the format of BTP CMEB 9.5-1. Responsibilities are assigned to functional project organizations which have members on the FPTF. Each functional member is responsible for obtaining support/input from his respective organization and tracking the completion of those activities assigned to his line organization within FPTF schedule constraints.

Responsibilities of the other FPTF members are as follows:

A. FPTF Program Manager

The FPTF program manager is responsible for overall control of task force activities. He is responsible for reporting to management and for obtaining management approval/support when required to accomplish FPTF goals. He is also responsible for the development of generic project controls needed to implement FPTF activities.

B. Task Force Facilitator

The task force facilitator is responsible for scheduling, statusing, and controlling the completion of FPTF work plan items. He maintains the task log and provides a coordination point between project entities engaged in task force work.

2.2.2.3 Project Licensing Manager

Although the project licensing manager is not a task force member, he is responsible for ensuring that project fire protection licensing issues are adequately addressed. He also provides the coordination point between the task force and the NRC.

2.3 FPTF OVERSIGHT OF PROJECT ACTIVITIES

This section defines those specific project (functional) fire protection work activities within the scope of review of the FPTF.

A. Safe Shutdown Analysis

The VEGP safe shutdown analysis is made up of several activities performed by project engineering. These activities are briefly described in items 1 through 9 below. The results of the safe shutdown analysis are filed as a project calculation and are updated as required as a result of plant modifications. The FPTF oversight activities related to the safe shutdown analysis are presented following item 9.

1. Safe Shutdown System and Components

The product of this task is a list of the minimum systems and components required to accomplish a safe shutdown. The fire event safe shutdown systems and components are those required to accomplish the following functions:

- o Reactivity control.
- o Reactor coolant system (RCS) inventory control.
- o RCS pressure control.
- o Core heat removal.
- o RCS heat removal.
- o Maintenance of vital auxiliaries.

Components that can affect the capability to achieve safe shutdown, while not actually required to be operational for safe shutdown, are included in the safe shutdown systems and components list as "spurious actuation concerns only" to facilitate identification of these concerns during the separation reviews.

2. Simplified Safe Shutdown System Sketches

Simplified piping and instrumentation diagrams (P&IDs) and electrical single-line diagrams which show the interrelationship of the safe shutdown systems and components are provided.

3. Safe Shutdown Component Locations

Safe shutdown component locations are one input to the safe shutdown separation review. The existence of safe shutdown components within a fire area is presented in the Fire Hazards Analysis, FSAR Appendix 9A, and is an important factor in the determination of fire area boundary locations.

4. Safe Shutdown Circuits Identification

This task identifies the safe shutdown circuitry subject to the separation requirements of BTP CMEB 9.5-1, position C.5.b.2.

5. Safe Shutdown Circuits Location

Safe shutdown circuit locations are one input to the safe shutdown separation review. The existence of safe shutdown circuits within a fire area is presented in the Fire Hazards Analysis, FSAR Appendix 9A, and is a factor in the determination of fire area boundary locations.

6. Safe Shutdown Separation Review

This review evaluates the degree of separation between redundant safe shutdown train circuitry and components against the criteria of BTP CMEB 9.5-1, position C.5.b. This review identifies the need for alternative/dedicated safe shutdown capability (including design changes and operational considerations), raceway protective wrapping, or circuit relocation to ensure safe shutdown capability.

7. Separation Deviation Identification and Justification

This effort provides justification for deviations from the separation criteria of BTP CMEB 9.5-1, position C.5.b, identified during the separation review efforts.

8. Safe Shutdown Coordinated Breaker, Relay, and Fuse Analysis

This effort ensures that coordinated protection in breakers, relays, and/or fuses precludes fire-induced failures in nonsafe shutdown circuits from deenergizing a bus which is a common power source for safe shutdown equipment required to achieve safe shutdown for the fire under consideration. This analysis also defines the design considerations which preclude fire-induced failures in nonsafe shutdown circuits from being propagated in a common enclosure.

9. Spurious Actuation Analysis

This effort identifies design changes and/or operational concerns necessary to preclude fire-induced hot shorts, open circuits, and shorts to ground in electrical circuitry from affecting the capability to achieve a safe shutdown plant condition. Spurious actuation concerns that could occur due to fires outside the control room are addressed by the safe shutdown separation review. Spurious actuation concerns that could occur due to a control room fire are addressed by a control room fire alternate shutdown evaluation.

FPTF Oversight: The FPTF reviews the safe shutdown analysis methodology and selected documentation to ensure that it is adequate to demonstrate compliance with the guidelines of BTP CMEB 9.5-1. In addition, the FPTF periodically reviews the progress of the work and conducts audits of the specific elements of the safe shutdown analysis.

B. Fire Protection Verification Program

The fire protection verification program (FPVP) ensures the correctness of design assumptions through walkdown of as-built configurations.

The FPVP procedures include training requirements for walkdown personnel and mechanisms for identifying, reviewing, and initiating corrective action to resolve walkdown discrepancies.

The FPVP is implemented in the Vogtle Project walkdown plan, WP-3, and is summarized below:

1. Walkdowns are required for buildings which contain components required for safe shutdown and will be performed using prepared checklists.

2. Checklists are developed for the following fire protection features to ensure a consistent method of verification and documentation. For each fire protection feature, a verification will be performed to verify adequacy.
 - o Water sprinkler systems.
 - o Penetration seals.
 - o Fire dampers.
 - o Fire detection system.
 - o Halon system.
 - o Fire hose locations.
 - o Portable extinguishers.
 - o Fire door installations.
 - o Emergency lighting.
 - o Safe shutdown raceway locations.
3. Any observed conditions which differ from the design requirements are noted. The goal of the program is not to verify exact measurements but to verify compliance with qualitative engineering criteria (e.g., blockages, obvious dimension problems, misuse or nonexistence of equipment). The program is structured to find problems in design concepts, not design specifics. Any item that does not meet the walkdown acceptance criteria is called a Walkdown Discrepancy (WD) and assigned a sequential number. An evaluation will be made of each WD by the walkdown coordinator to determine whether a Deviation Report (DR) is required. A DR will be initiated if the WD constitutes a violation of a design document when appropriate design-allowed tolerances are considered.

FPTF Oversight: The FPTF ensures the adequacy of the FPVP as follows:

1. The FPTF evaluates procedures governing the walkdown to ensure that program concerns are adequately addressed.
2. Prior to the FPVP walkdowns, the FPTF will perform an evaluation of selected plant areas to determine the adequacy of the FPVP procedures and checklists. Procedural discrepancies noted during this evaluation will be corrected before beginning the FPVP.

C. Post-Walkdown Configuration Control

Following plant walkdown activities, there is a potential for changes to area configuration due to design changes and/or construction completion activities.

FPTF Oversight: The FPTF ensures the adequacy of the project configuration control mechanisms by evaluating the preoperational-phase control programs to ensure that project procedures governing changes or modifications to plant configurations adequately address fire protection concerns.

D. Fire Protection Program Schedule

Schedule FP-100, Fire Protection Program Schedule, identifies the milestones and target dates for the project fire protection work activities.

FPTF Oversight: The FPTF has established a task log which identifies the responsible FPTF member associated with each scheduled activity and each milestone. The task log is used to track activity progress and to identify problem areas. It is submitted every 2 months to the program facilitator.

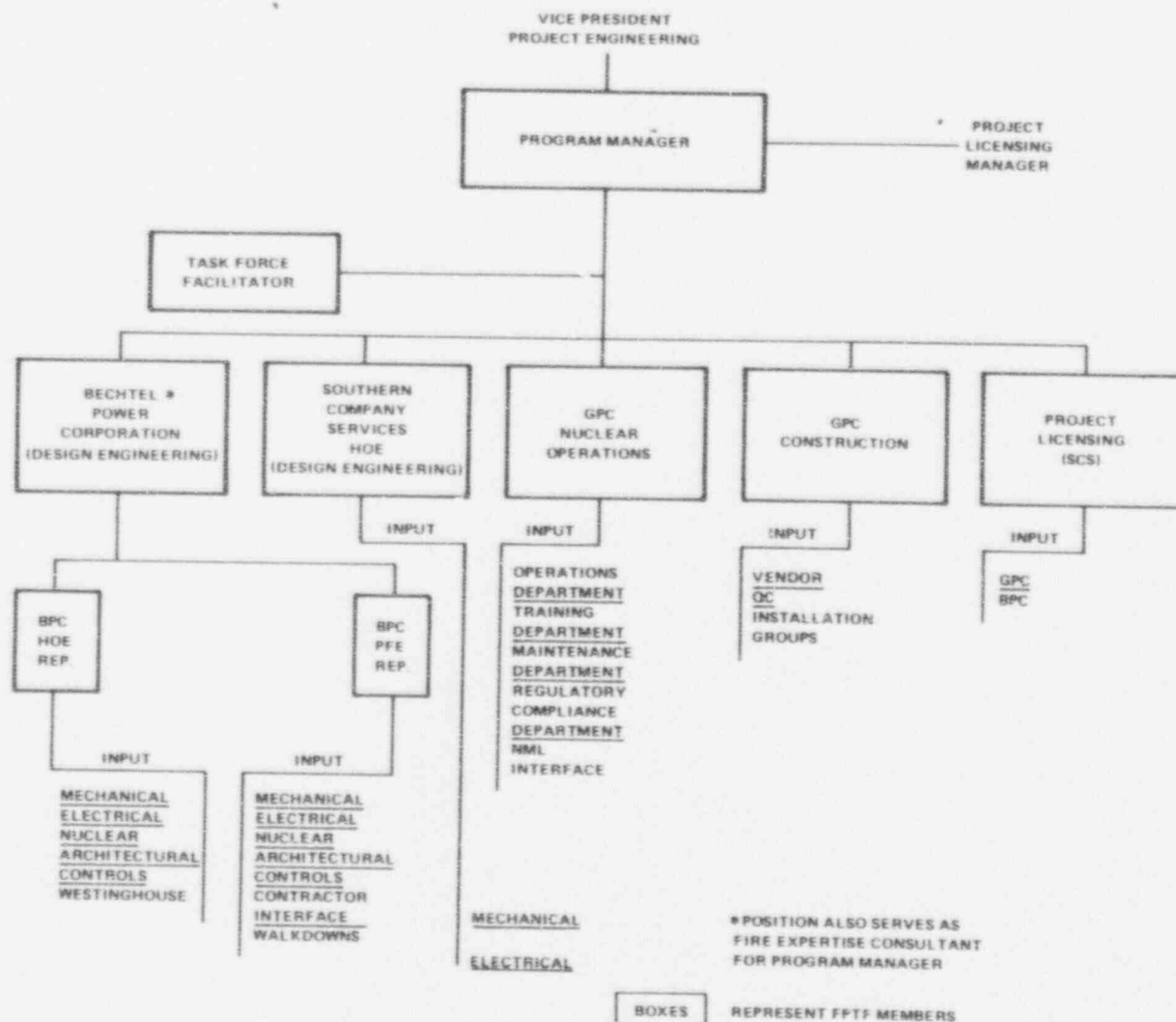


Figure 2-1 VEGP Fire Protection Task Force Functional Organization

3.0 COMMITMENT IMPLEMENTATION ASSESSMENT

3.1 INTRODUCTION

This section contains project licensing commitments and the corresponding implementing documents. These are presented in two matrixes, the commitment matrix and the implementation matrix. A brief explanation of the development process for each matrix is also included. Any differences between the commitments discussed in this section and the VEGP Final Safety Analysis Report (FSAR) are unintentional, and the FSAR prevails.

Additionally, the Project has an obligation to comply with other generic commitments, such as 10 CFR 50 Appendix B and American National Standards Institute (ANSI) 2.10. Although not specifically included in the matrix, the Project recognizes its obligation to comply with such commitments, which serve as a basis for establishment of the design programs.

Readiness Review Findings and project responses are also included in this section.

3.2 SUMMARY EVALUATION

The Readiness Review Team reviewed 179 FSAR licensing commitments included in the commitment matrix and found all but two implemented in project design documents. One finding concerned a discrepancy in the revision number of the Nuclear Mutual Limited (NML) property loss prevention standard specified in the FSAR versus that specified in the design criteria. It was determined that the appropriate revision will be the revision in effect at the time of NML review. Both the FSAR and design criteria will be corrected accordingly. In the other case, FSAR requirements for fire pump hydrostatic test pressure differed from those specified in specification X4AF14 (the specification for fire system pumps and drivers). It was determined that the pumps had been appropriately tested, and the FSAR will be revised to reflect the specification requirements. These findings, per project response, have no safety or hardware impact; and the FSAR and corresponding design criteria will be revised to correct these discrepancies.

3.3 DEFINITIONS

A commitment is defined as an obligation to comply with an industry standard, Regulatory Guide, Branch Technical Position, or owner plan of specific action.

An implementing document is the working-level document that identifies project commitments applicable to the specific work activity.

3.4 SOURCES

Commitments covered by this module are identified from the FSAR, including responses to Nuclear Regulatory Commission (NRC) questions.

These sources are reviewed for commitments based upon guidelines developed from the definition in section 3.2.

Commitments identified in the commitment matrix are typically implemented through design criteria and material specifications.

3.5 COMMITMENT MATRIX

Once identified by the Readiness Review Team, the commitments are placed on the commitment matrix. Information identifying the source, source section, subject, and module are also listed on the matrix. Any relevant comments concerning the commitments or subject of the section are indicated in the Remarks column.

The commitment matrix is presented at the end of this section. Commitments on the matrix include those commitments through Amendment 19 of the FSAR.

3.6 IMPLEMENTATION MATRIX

After the commitments are identified, the appropriate design documents are reviewed to determine whether the commitments were incorporated. Most of the commitments reference the requirements of industry standards, Regulatory Guides, Branch Technical Positions, etc. The Readiness Review Team compared these requirements with project design documents for appropriate inclusion. In some cases, project design documents invoked the requirements of industry standards or regulatory documents instead of implementing the specific commitment. For example, FSAR section 9.5.1.4 commits that the Halon 1301 system should be tested by full system discharge. This commitment is not specifically included in Design Criteria DC-2304 or specification X4AX03; but both documents invoke National Fire Protection Association (NFPA) 12A, which includes this commitment. In other words, the implementation of the above-mentioned commitment is through NFPA 12A, which is invoked in DC-2304 and specification X4AX03. The current implementation of each commitment is listed in the Design Last column, with the earliest documented location of the commitment listed in the Design First column.

The Module 18B commitment matrix includes a unique number for each commitment selected from the FSAR. The implementation matrix contains several entries on the same commitment subject. In these cases, the implementing documents are listed once; and each additional entry references, in the Remarks column, the original listing.

3.7 FINDINGS, PROJECT RESPONSES, AND CONCLUSIONS

The commitment implementation assessment was structured to disclose any discrepancies between commitments and implementing documents. When discrepancies were found, they were identified on a numbered finding report. Findings were then referred to the appropriate project organization to evaluate the direct or indirect impact on design and to determine the necessary corrective actions. Findings were classified into three levels of importance relating to plant safety:

- I - Violation of licensing commitments, project procedures, or engineering requirements with indication of safety concern.
- II - Violation of licensing commitments or engineering requirements with no safety concerns.
- III - Violation of project procedures with no safety concerns.

3.7.1 READINESS REVIEW FINDINGS AND PROJECT RESPONSES

The FSAR commitment implementation assessment program consisted of a review of 179 FSAR licensing commitments pertaining to fire protection for their implementation into appropriate design engineering documents.

This assessment resulted in two findings, which were classified as Level II findings. These findings and project responses are summarized below:

- o Finding 18B-1 (Level II)

Description: This finding identified a discrepancy between the required design criteria (DC-1000-A, Revision 1, December 4, 1985) and the FSAR commitment. It identified that the revision of the NML property loss prevention standard for nuclear generating stations specified in the FSAR differed from that specified in the design criteria.

Project Response: The Project responded that, for NML standards, the revision in effect at the time of the NML review and inspection is the applicable and

enforced revision. Therefore, the FSAR and the design criteria should not refer to the specific revision. The FSAR and the design criteria will be revised to reflect this. The Project ensured that no safety or hardware impact was caused by this discrepancy. The Project committed to revise FSAR section 3.1.1 and DC-1000-A to delete the year reference to the NML standard by May 1, 1986.

o Finding 18B-2 (Level II)

Description: This finding identified that FSAR section 9.5.1.4 (Inspection and Testing Requirements) requires that each fire pump be hydrostatically tested at the factory to twice the maximum pressure developed at shutoff.

Contrary to the FSAR, section 5.3.1 (shop tests) of specification X4AF14 (specification for fire system pumps and drivers) states that all shop tests shall be in accordance with NFPA 20, the test code of the Hydraulic Institute, and Diesel Engine Manufacturers Association (DEMA) standards.

Requirements of NFPA 20 and the test code of the Hydraulic Institute differ from those specified in the FSAR commitment. According to NFPA 20-1976, section 2-12.2, test pressure shall not be less than one and one-half times the maximum design working pressure, but in no case less than 250 psi. The test code of the Hydraulic Institute requires that the pump be hydrostatically tested at not less than 150 percent of rated pressure or 125 percent of shutoff pressure for at least 5 minutes.

Project Response: The pumps have a design working pressure of 125 psig. The pump manufacturer conducted the hydrostatic test per NFPA 20; i.e., 250 psi for 5 minutes. Further, there are no code or regulatory requirements to test fire pumps in excess of those pressures specified by NFPA 20. The Project committed to revise the FSAR during the 1986 update to be consistent with NFPA 20-1976.

3.7.2 READINESS REVIEW CONCLUSION

The Readiness Review Team agrees with the project response for both findings and corrective actions.

COMMITMENTS

SORTED BY SOURCE AND SECTION

<u>COMMITMENT</u> <u>SOURCE</u>	<u>COMMITMENT</u> <u>SECTION</u>	<u>COMMITMENT</u> <u>SUBJECT</u>	<u>DOCUMENT/</u> <u>FEATURE</u>	<u>RESPONSIBILITY</u> <u>DESIGN</u> <u>CONST</u>	<u>REMARKS</u>	<u>REF NO.</u>
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EXPLANATION OF FIELDS

COMMITMENT SOURCE - The document containing the commitment (FSAR, Generic Letter, I.E. Bulletin Response, etc.)

COMMITMENT SECTION - Identifies the FSAR section, letter number, or question number

COMMITMENT SUBJECT - The subject of the FSAR section or Generic Letter

DOCUMENT/FEATURE - The document discussed in the FSAR section or the plant feature described in the FSAR section

RESPONSIBILITY - An X is placed under the heading for the organization responsible for implementation of the commitment

REF. NO. - A reference number that corresponds to the appropriate line entry in the implementation matrix

COMMITMENTS

MODULE 18B - SORTED BY SOURCE & SECTION

COMMITMENT SOURCE	COMMITMENT SECTION	COMMITMENT SUBJECT	DOCUMENT/ FEATURE	RESPONSIBILITY DESIGN CONST	REMARKS	REF NO
FSAR	1. 9. 23	SEISMIC DESIGN CLASSIFICATION	RG 1.29, REV 3, 9/78	X	REF. TABLE T3.2.2-1	685
FSAR	1. 9. 61	DAMPING VALUES FOR SEISMIC DESIGN OF NUCLEAR POWER PLANTS	RG 1.61, 10/73	X	SEE FSAR 3.7.B.1, 3.7.N.1	707
FSAR	1. 9. 84	DESIGN AND FAB. CODE CASE ACCEP. ASME III, DIV. 1	RG 1.84, REV. 20, 11/82	X	REF. TABLE 1.9-1, PARA. 5.2.1.2, TABLE 1.9-3	1565
FSAR	1. 9. 85	MATERIAL CODE CASE ACCEP. ASME III, DIV. 1	RG 1.85, REV. 20, 11/82	X	REF. TABLE 1.9-2, 1.9-3, PARA. 5.2.1.2	1569
FSAR	1. 9.120	FIRE PROTECTION GUIDELINES FOR NUCLEAR POWER PLANTS	10CFR50, APP. A, GDC 3	X	REF. APP. 9B FOR CONFORMANCE	1582
FSAR	1. 9.120	FIRE PROTECTION GUIDELINES FOR NUCLEAR POWER PLANTS	BTP-CMEB 9.5-1	X	REF. APP. 9B FOR CONFORMANCE	1583
FSAR	1. 9.141	CONTAINMENT ISOLATION PROVISIONS FOR FLUID SYSTEMS	RG 1.141, REV. 0, 4/78	X	REF. 6.2.4	1595
FSAR	1. 9.141. 1	CONTAINMENT ISOLATION PROVISIONS FOR FLUID SYSTEMS	10CFR50, APP. A.	X	REF. 6.2.4	1597
FSAR	1. 9.141.1	CONTAINMENT ISOLATION PROVISIONS FOR FLUID SYSTEMS	ANSI N271-1976	X	REF. 6.1.4	1596
FSAR	3. 1. 1	CONFORMANCE WITH NRC GENERAL DESIGN CRITERIA, OVERALL REQUIREMENTS	10CFR50, APP. A, GDC 3	X		789

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FSAR	3. 1. 1	CONFORMANCE WITH NRC BTP-CMER 9.5-1 GENERAL DESIGN CRITERIA, OVERALL REQUIREMENTS		X			784
FSAR	3. 1. 1	CONFORMANCE WITH NRC 10CFR50, APP. A, GDC 2 GENERAL DESIGN CRITERIA, OVERALL REQUIREMENTS		X			785
FSAR	3. 1. 1	CONFORMANCE WITH NRC NFPA GENERAL DESIGN CRITERIA, OVERALL REQUIREMENTS		X			786
FSAR	3. 1. 1	CONFORMANCE WITH NRC BTP-APCSB 9.5-1, APP. A GENERAL DESIGN CRITERIA, OVERALL REQUIREMENTS	(5/76)	X			788
FSAR	3. 1. 1	CONFORMANCE WITH NRC 10CFR50, APP. A, GDC 4 GDC, OVERALL REQUIREMENTS		X			790
FSAR	3. 1. 1	CONFORMANCE WITH NRC 10CFR50, APP. A, GDC 5 GDC, OVERALL REQUIREMENTS		X			791
FSAR	3. 1. 1	CONFORMANCE WITH NUCLEAR REGULATORY COMMISSION GENERAL DESIGN CRITERIA, OVERALL REQUIREMENTS	NUCLEAR MUTUAL LIMITED PROPERTY LOSS PREVENTION STANDARDS FOR NUCLEAR GENERATING STATIONS, JUNE '97B	X			1942
FSAR	3. 1. 5	CONFORMANCE WITH NRC 10CFR50, APP. A, GDC 54 - GDC, REACTOR CONTAINMENT	PIPING SYSTEMS PENETRATING CONTAINMENT	X			2025

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FSAR	3. 1. 5	ALLOWANCE OF PERIODIC LEAK RATE TESTING TO ENSURE WITHIN LIMITS	10CFR50, APP. J	X		SEE FSAR 3.1.5, GDC54	2026
FSAR	3. 1. 5	CONFORMANCE WITH NRC GDC, CLOSED SYSTEM ISOLATION VALVES	10CFR50, APP. A, GDC 57	X			2028
FSAR	3. 2. 2	VEGP SEISMIC DESIGN CLASSIFICATION SYSTEM	RG 1.29	X			1754
FSAR	3. 2. 2-1	CLASSIFICATION OF STRUCTURES, COMPONENTS AND SYSTEMS	NOTE (v): BTP CMRB 9.5-1, APP. A, FIRE PROTECTION	X		TABLE 3.2.2-1	848
FSAR	3. 2. 2-1	CLASSIFICATION OF STRUCTURES, COMPONENTS AND SYSTEMS	NOTE (x): FIRE PROTECTION STANDPIPE PROJECT CLASS. 313 TO ENSURE IMPL. OF A SEISMIC CAT. 1, ASME III-3	X			850
FSAR	3. 2. 2-1	PRINCIPAL CONSTRUCTION CODE FOR FIRE PROTECTION SYSTEMS	NEMA MG1 1972 (NATIONAL ELECTRICAL MFRS. ASSOC.) MOTORS/GENERATORS	X		TABLE 3.2.2-1 COL. (g)	865
FSAR	3. 2. 2-1	PRINCIPAL CONSTRUCTION CODE FOR FIRE PROTECTION SYSTEMS	NFPA	X		TABLE 3.2.2-1 COL. (g)	873
FSAR	3. 2. 2-1	PRINCIPAL CONSTRUCTION CODE FOR FIRE PROTECTION SYSTEMS	ASME III, CLASS 1,2,3 OR MC, X NF. OR CS	X	X	TABLE 3.2.2-1 COL. (g)	870

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FSAR	3. 2. 2-1	CODES AND STANDARDS DESIGNATOR FOR FIRE PROTECTION SYSTEMS	ANSI B31.1	X	X	CODES AND STANDARDS DESIGNATOR 9 - SEE PARA. 3.2.2.3.4	884
FSAR	3. 2. 2-2	CONST. CODES/STDS. Q.G.-C FOR PRESSURE VESSELS, PIPING, PUMPS, VALVES, ATM. STORAGE TANKS, 0-15psig STORAGE TANKS, SUPPORTS.	ASME III, SUBSECTION ND, CLASS 3	X	X	TABLE 3.2.2-1, QGC SUBSECTION NF FOR SUPPORTS	889
FSAR	3. 2. 2. 3.4	CLASSIFICATION OF STRUCTURES, COMPONENTS, EQUIPMENT AND SYSTEMS-CODES/STANDARDS DESIGNATOR 9	AWWA	X		INVOKED BY NFPA	911
FSAR	3. 7.B. 3. 1.3	SEISMIC ANALYSIS OF CATEGORY 1 SUBSYSTEMS AND COMPONENTS	BC-TOP-4A	X			1011
FSAR	6. 2. 4. 3.D	CONTAINMENT ISOLATION SYSTEM, DESIGN EVALUATION	10CFR50, APP. A, GDC 54, PIPING SYSTEMS PENETRATING CONTAINMENT	X			2055
FSAR	6. 2. 4. 3.F	CONTAINMENT ISOLATION SYSTEM, DESIGN EVALUATION	10CFR50, APP. A, GDC 57, CLOSED SYSTEM ISOLATION VALVES	X			2057
FSAR	7. 1. 2. 2.3	FIRE PROTECTION IDENTIFICATION OF SAFETY CRITERIA	FIRE RETARDANT PAINT IS USED ON PROTECTION RACK OR CABINET CONSTRUCTION TO RETARD FIRE OR HEAT PROPAGATION FROM RACK TO RACK.	X			4591

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FSAR	7. 1. 2. 2.3	FIRE PROTECTION IDENTIFICATION OF SAFETY CRITERIA	ICRA PUB. P-46-426 OR P-54-440	X			4592
FSAR	8. 2. 2. 4	CONFORMANCE TO CRITERIA (PREFERRED POWER SOURCES)	10CFR50, APP. A, GDC 3	X			40
FSAR	8. 3. 1. 4.4	FIRE PROTECTION	AUTOMATIC SPRINKLERS ARE PROVIDED FOR ALL SAFETY-RELATED CABLE TRAYS.	X			91
FSAR	8. 3. 1. 4.4	ON-SITE POWER SYSTEM FIRE PROTECTION	VERTICAL AND HORIZONTAL CABLE TRAY FLOOR OR WALL PENETRATIONS ARE SEALED TO GIVE PROTECTION EQUIVALENT TO OR GREATER THAN THE FIRE BARRIER RATING	X			4821
FSAR	9. 4. 1. 2.1	CONTROL ROOM NORMAL HVAC	3H. CURTAIN TYPE FIRE DAMPERS LOCATED AS NECESSARY, BETWEEN FIRE WALLS TO MAINTAIN FIRE RATINGS OF BARRIERS.	X			3458
FSAR	9. 4. 2. 2.2.2.C.5	POST ACCIDENT OR EMERGENCY OPER. OF THE FHB SYSTEM FIRE DAMPERS	THREE HOUR RATED CURTAIN TYPE FIRE DAMPERS LOCATED IN FIRE BARRIERS AS NECESSARY	X			3975
FSAR	9. 5. 1	FIRE PROTECTION PROGRAM	BTP CMEB 9.5-1	X		SEE APPENDIX 9B FOR CONFORMANCE	3654
FSAR	9. 5. 1. 1.5	FIRE SUPPRESSION SYSTEM DAMAGE	BTP MEB 3-1	X			3656
FSAR	9. 5. 1. 2.1.1	FIRE PROTECTION PROGRAM SYSTEM DESCRIPTION, PLANT LAYOUT	STRUCTURE STEEL MEMBERS SUPPORTING FIRE BARRIERS ARE PROTECTED TO SAME HOURLY FIRE RATING AS FIRE BARRIER.	X			3657

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FSAR	9. 5. 1. 2.1.1	FIRE PROTECTION PROGRAM SYSTEM DESCRIPTION STORAGE AND USE OF FLAMMABLE AND COMBUSTIBLE LIQUIDS.	NFPA 30	X		SEE APP. 9B FOR EXCEPTIONS	3658
FSAR	9. 5. 1. 2.1.1	FIRE PROTECTION PROGRAM, SYSTEM. DESCRIP PLANT LAYOUT	BULK STORAGE OF COMPRESSED OR CRYOGENIC GASES IS NOT PERMITTED WITHIN STRUCTURES HOUSING SAFETY RELATED EQUIP.	X			3659
FSAR	9. 5. 1. 2.1.1	FIRE PROTECTION PROGRAM, SYSTEM DESCRIPTION PLANT LAYOUT	BULK FLAMMABLE GASES STORED OUTDOORS OR IN SEPARATE DETACHED BLDGS. AND ARE NOT EXPOSED TO SAFETY RELATED EQUIP. SYSTEMS OR STRUCTURES.	X			3660
FSAR	9. 5. 1. 2.1.1	FIRE PROTECTION PROGRAM SYSTEM DESCRIPTION, PLANT LAYOUT	OIL FILLED TRANSFORMERS IN SWITCHYARD ARE MIN. OF 50 FT. FROM SAFETY RELATED STRUCTURES	X			3662
FSAR	9. 5. 1. 2.1.1	FIRE PROTECTION PROGRAM SYSTEM DESCRIPTION, PLANT LAYOUT	REDUNDANT SAFETY DIVISION TRAINS A AND B ARE IN INDIVIDUAL CABLE SPREADING ROOMS SEPARATED BY 3H FIRE BARRIERS	X			3663
FSAR	9. 5. 1. 2.1.1	FIRE PROTECTION PROGRAM SYSTEM DESCRIPTION, PLANT LAYOUT	SAFETY RELATED CHARCOAL FILTER ASSEMBLIES HAVE A DELUGE SYSTEM.	X			3667
FSAR	9. 5. 1. 2.1.1	FIRE PROTECTION PROGRAM, SYSTEM DESCRIPTION, PLANT LAYOUT	MANUAL FIRE SUPPRESSION SYSTEMS PROVIDED OVER CHARCOAL FILTER HOUSING.	X			3668

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FSAR	9. 5. 1. 2.1.1.A	FIRE PROGRAM PROGRAM, SYSTEM DESCRIPTION, PLANT LAYOUT	SEPARATION OF REDUNDANT TRAINS	X			3664
FSAR	9. 5. 1. 2.1.1.A	FIRE PROTECTION PROGRAM SYSTEM DESCRIPTION, PLANT LAYOUT	SEPARATION BY 3H FIRE BARRIER	X			3665
FSAR	9. 5. 1. 2.1.1.B	FIRE PROTECTION PROGRAM SYSTEM DESCRIPTION, PLANT LAYOUT	MIN. 20 FT. SEPARATION WITH NO INTERVENING COMBUSTIBLE HAZARDS	X			3666
FSAR	9. 5. 1. 2.1.2	FIRE PROTECTION PROGRAM BARRIERS AND ACCESS	DOORS THRU FIRE BARRIERS HAVE FIRE RATING COMMENSURATE WITH FIRE BARRIER	X			3669
FSAR	9. 5. 1. 2.1.2	FIRE PROTECTION PROGRAM BARRIERS AND ACCESS	CABLE, CABLE TRAYS, CONDUITS, AND PIPING PENETRATIONS OF FIRE BARRIERS HAVE SEALS WITH SAME HOURLY RATING AS BARRIER.	X			3670
FSAR	9. 5. 1. 2.1.2	FIRE PROTECTION PROGRAM BARRIERS AND ACCESS	VENT. SYSTEM PENETRATION OPENINGS WILL HAVE FIRE DAMPERS WITH RATING EQUIVALENT TO FIRE BARRIER.	X		SEE NFPA 9A, AC AND VENTILATING SYSTEMS	3671
FSAR	9. 5. 1. 2.1.2	FIRE PROTECTION PROGRAM BARRIERS AND ACCESS	FLEXIBLE AIR DUCT COUPLINGS IN VENT AND FILTER SYSTEMS WILL BE NONCUMBUSTIBLE.	X			3672
FSAR	9. 5. 1. 2.1.2	FIRE PROTECTION PROGRAM BARRIERS AND ACCESS	FUSIBLE LINK CLOSING AND MANUAL REOPENING FIRE DAMPERS USED WHERE NON SAFETY-RELATED DUCTWORK PENETRATES FIRE BARRIERS AND FIRE TOWER WALLS.	X			3673

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FSAR	9. 5. 1. 2.1.2	FIRE PROTECTION PROGRAM BARRIERS AND ACCESS	ELEVATORS AND LIFE SAFETY STAIRWELLS ENCASED IN CONCRETE SHAFTS WITH 2H FIRE RATINGS AND CLASS B SELF CLOSING SIMILARLY RATED DOORS.	X		IN ACCORDANCE WITH NFPA LIFE SAFETY CODE	3674
FSAR	9. 5. 1. 2.1.2	FIRE PROTECTION PROGRAM BARRIERS AND ACCESS	WALLS AND STRUCTURAL MATERIALS ARE NON COMBUSTIBLE	X			3675
FSAR	9. 5. 1. 2.1.2	FIRE PROTECTION PROGRAM BARRIERS AND ACCESS	INTERIOR FINISH MATERIALS ARE NON-COMBUSTIBLE OR HAVE A FLAME SPREAD, SMOKE AND FUEL CONTRIBUTION OF 25 OR LESS.	X		AS DEFINED BY ASTM E-84. INCLUDES THERMAL INSULATION, RADIATION SHIELDING, AND SOUND PROOFING	3676
FSAR	9. 5. 1. 2.1.2	FIRE PROTECTION PROGRAM BARRIERS AND ACCESS	ELEC WIRING TO LIGHTING AND HVAC ABOVE SUSPENDED CEILINGS IS ENCLOSED IN CONDUIT	X			3677
FSAR	9. 5. 1. 2.1.2	BARRIERS AND ACCESS DOORS	NFPA 80 AND 252	X		AMEND. 15	4944
FSAR	9. 5. 1. 2.1.3	FIRE PROTECTION PROGRAM LIMITATION OF FIRE EFFECTS	AUTO. FUSIBLE CLOSING/MANUAL REOPENING FIRE DAMPERS PROVIDED FOR VENT. OPENING THRU FIRE BARRIERS WHICH ARE NOT PROVIDED WITH DUCTWORK ON EITHER SIDE	X			3678
FSAR	9. 5. 1. 2.1.3	FIRE PROTECTION PROGRAM, LIMITATION OF FIRE EFFECTS	STAIRWELLS HAVE A MIN. 1 1/2-H RATED FIRE DOOR	X		CHANGED BY AMEND. 15	3679
FSAR	9. 5. 1. 2.1.4	FIRE PROTECTION PROGRAM FIRE PROTECTION OF CABLES AND CIRCUITRY.	WIRING RUNS OUTSIDE CABLE TRAYS ENCLOSED IN METAL CONDUIT	X			3680

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FSAR	9. 5. 1. 2.1.4	FIRE PROTECTION PROGRAM FIRE PROTECTION OF CABLES AND CIRCUITRY	IEEE 383-74	X		SEE APP. 9B FOR EXCEPTIONS. APPLIES TO FLAME TEST OF ELEC. RACEWAY CABLE CONSTRUCTION.	3681
FSAR	9. 5. 1. 2.1.4	FIRE PROTECTION PROGRAM FIRE PROTECTION OF CABLES AND CIRCUITRY.	CABLE TRAY CONSTRUCTION MATERIALS ARE NONCOMBUSTIBLE	X			3682
FSAR	9. 5. 1. 2.1.4	FIRE PROTECTION PROGRAM FIRE PROTECTION OF CABLES AND CIRCUITRY.	INTERIOR TRANSFORMERS ARE DRY TYPE.	X			3683
FSAR	9. 5. 1. 2.1.4	FIRE PROTECTION PROGRAM, FIRE PROTECTION OF CABLES AND CIRCUITRY.	NFPA 803-1978, SECT. 6-3	X		APPLIES TO FIRESTOPS WHERE CABLE TRAYS PENETRATE FIRE BARRIERS AND FLOORS. SEE APP. 9B FOR EXCEPTIONS.	3684
FSAR	9. 5. 1. 2.1.4	FIRE PROTECTION PROGRAM FIRE PROTECTION OF CABLES AND CIRCUITRY	IN THE CABLE SPREADING ROOMS, CABLING FOR REDUNDANT SAFETY DIVISIONS IS ROUTED IN INDIVIDUAL CABLE SPREADING ROOMS SEPARATELY FOR EACH UNIT AND ARE SEPARATED BY 3-H FIRE BARRIERS.	X			3688
FSAR	9. 5. 1. 2.1.4	FIRE PROTECTION PROGRAM FIRE PROTECTION OF CABLES AND CIRCUITRY.	CABLE AND CABLE TRAY PEN. OF FIRE BARRIERS (VERT. AND HORIZ.) ARE SEALED (FIRE STOPS) TO GIVE PROTECTION AT LEAST EQUIV. FOR THE FIRE BARRIERS.	X			4092

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FSAR	9. 5. 1. 2.1.4.A	FIRE PROTECTION PROGRAM FIRE PROTECTION OF CABLES AND CIRCUITRY.	SMOKE DETECTORS ARE PROVIDED X FOR ALL SAFE SHUTDOWN CABLE TRAYS				3685
FSAR	9. 5. 1. 2.1.4.A	FIRE PROTECTION PROGRAM FIRE PROTECTION OF CABLES AND CIRCUITRY.	LINE TYPE FIRE DETECTORS ARE X PROVIDED IN CONTAINMENT CABLE TRAYS				3686
FSAR	9. 5. 1. 2.1.4.C	FIRE PROTECTION PROGRAM FIRE PROTECTION OF CABLES AND CIRCUITRY.	ESSENTIAL CIRCUITS DURING X SAFE SHUTDOWN ARE DESIGNED TO ALLOW WETTING WITHOUT FAULTING				3687
FSAR	9. 5. 1. 2.2.11	FIRE PROTECTION PROGRAM HALON 1301	TWO SEPARATE HALON STORAGE X TANKS WITH INDIVIDUAL CYLINDER VALVES PROVIDE FOR TWO SEPARATE DISCHARGES IN ANY PROTECTED AREA.				3696
FSAR	9. 5. 1. 2.2.15	EMERGENCY LIGHTING	8 HOUR SEALED BEAM FIXTURES. X				3585
FSAR	9. 5. 1. 2.2.4.C	FIRE PROTECTION PROGRAM - UNDERGROUND LOOP SYSTEM	HYDRANTS INSTALLED AT A X MAXIMUM INTERVAL OF 250 FT. ALONG YARD MAIN				3689
FSAR	9. 5. 1. 2.2.5	FIRE PROTECTION PROGRAM FIRE EXTINGUISHERS	UL LISTED AND/OR FM APPROVED X				3690
FSAR	9. 5. 1. 2.2.5	FIRE PROTECTION PROGRAM FIRE EXTINGUISHERS	NEPA 10 X				3691

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FSAR	9. 5. 1. 2.2.6	FIRE PROTECTION PROGRAM WET STANDPIPE AND HOSE SYSTEM	NFPA 14, CLASS 2	X		SEE APP. 9B FOR EXCEPTION	3692
FSAR	9. 5. 1. 2.2.6	FIRE PROTECTION PROGRAM WET STANDPIPE AND HOSE SYSTEM	INDIVIDUAL STANDPIPES ARE 4 IN. DIA. MIN FOR MULTIPLE HOSE CONNECTIONS AND 2.5 IN. DIA. MIN. FOR SINGLE HOSE CONNECTIONS.	X			3693
FSAR	9. 5. 1. 2.2.7	FIRE PROTECTION PROGRAM SEISMIC DRY STANDPIPE SYSTEM	INDEPENDENT SEISMIC DRY STANDPIPE AND HOSE SYSTEM PROVIDES MANUAL FIRE CONTROL IN AREAS REQUIRED FOR SAFE SHUTDOWN FOLLOWING AN SSE.	X			3694
FSAR	9. 5. 1. 2.2.7	FIRE PROTECTION PROGRAM SEISMIC DRY STANDPIPE SYSTEM	ASME III, CLASS 3	X		APPLIES TO PIPING AND VALVES OF DRY SEISMIC STANDPIPE AND HOSE SYSTEM.	3695
FSAR	9. 5. 1. 2.2.9	AUTOMATIC PREACTION SPRINKLERS	ALL SPRINKLER SYSTEM PIPING IN CAT. I STRUCTURES IS DESIGNED FOR SSE LOADS	X		AMEND. 15	4945
FSAR	9. 5. 1. 2.3.1.G	SYSTEM OPERATION (FIRE DETECTION)	TWO (2) SEPARATE DETECTORS REQUIRED TO ACTUATE HALON 1301 SYSTEM.	X			3558
FSAR	9. 5. 1. 2.3.2	FIRE PROTECTION PROGRAM FIRE DETECTORS AND MANUAL ALARMS SMOKE DETECTORS.	NFPA 72B.	X		SMOKE DETECTOR PROVISION GUIDE	3698
FSAR	9. 5. 1. 2.3.2	FIRE PROTECTION PROGRAM FIRE DETECTORS, AND MANUAL ALARMS	NFPA 72A	X		SEE APP. 9B FOR EXCEPTIONS	3699

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FSAR	9. 5. 1. 2.4.A	FIRE PROTECTION PROGRAM - MISC. AREAS	SERVICE BLDG. RECORD STORAGE FACILITY HAS AN AUTOMATIC HALON 1301 SYSTEM PROVIDING A MINIMUM 5% CONCENTRATION.	X			3700
FSAR	9. 5. 1. 3.A	FIRE SAFETY PROGRAM SAFETY EVAL.	CLASS A ROOF DRCK ASSEMBLIES, AS LISTED BY UL, ARE USED ON SAFETY RELATED STRUCTURES.	X			3702
FSAR	9. 5. 1. 3.B	FIRE PROTECTION PROGRAM SAFETY EVALUATION	IEEE 383-1974	X		APPLIES TO FLAME RETARDANCE OF POWER CONTROL, INSTRUMENTATION AND COMMUNICATION CABLE	3704
FSAR	9. 5. 1. 3.C	THERMAL ANTI-SWEAT INSULATION	ASTM E-84 RATINGS OF 25 FOR FLAME SPREAD, 50 FOR FUEL CONTRIBUTED, AND 50 FOR SMOKE GENERATED.	X		PROVIDED FOR SERVICE OR COOLING WATER PIPING	3705
FSAR	9. 5. 1. 3.C	FIRE PROTECTION PROGRAM SAFETY EVALUATION INSULATION-DUCTWORK ABOVE CEILING OF CONTROL ROOM	UL RATINGS OF 25 FOR FLAME SPREAD, FUEL CONTRIBUTED AND SMOKE GENERATED	X			3706
FSAR	9. 5. 1. 3.F	FIRE PROTECTION PROGRAM SAFETY EVALUATION INSULATION-DUCTWORK ABOVE CEILING OF CONTROL ROOM	PREACTION SPRINKLER SYSTEMS INSTALLED IN KSF ROOMS	X			3707
FSAR	9. 5. 1. 3.F	EC PUMP AND ELEC. CABLES IN CONTAINMENT	PROTECTED BY REMOTE-MANUAL PREACTION SPRINKLER SYSTEMS	X			3708

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FSAR	9. 5. 1. 3.G.F.1	FIRE PROTECTION PROGRAM SAFETY EVALUATION FIRE RESISTANCE REQUIREMENTS FOR SAFETY RELATED CAT. I STRUCTURES.	EXTERIOR WALLS HAVE 3H FIRE RESISTANCE CONSTRUCTION.	X			3905
FSAR	9. 5. 1. 3.G.F.2	FIRE PROTECTION PROGRAM SAFETY EVALUATION FIRE RESISTANCE REQUIREMENTS FOR SAFETY RELATED CAT I STRUCTURES	INTERIOR BEARING WALLS HAVE 3H FIRE RESISTANCE CONSTRUCTION	X			3906
FSAR	9. 5. 1. 3.G.F.3	FIRE PROTECTION PROGRAM SAFETY EVALUATION FIRE RESISTANCE REQUIREMENTS FOR SAFETY RELATED CAT. I STRUCTURES.	INTERIOR NON BEARING WALLS-3H FIRE RESISTANCE CONSTRUCTION	X		WHERE REQUIRED FOR SAFETY SYSTEM SEPARATION. ALL OTHER WALLS TO BE NONCOMBUSTIBLES.	3907
FSAR	9. 5. 1. 3.G.F.4	FIRE PROTECTION PROGRAM SAFETY EVALUATION FIRE RESISTANCE REQUIREMENTS FOR SAFETY RELATED CAT. I STRUCTURES	PRINCIPAL STRUCTURAL SUPPORTING MEMBERS OF SINGLE STORY BLDGS. 2H FIRE RESISTANCE CONSTRUCTION.	X			3908
FSAR	9. 5. 1. 3.G.F.5	FIRE PROTECTION PROGRAM SAFETY EVALUATION FIRE RESISTANCE REQUIREMENTS FOR SAFETY RELATED CAT. I STRUCTURES.	PRINCIPAL STRUCTURAL SUPPORTING MEMBERS OF MULTI-STORY BLDGS.-3H FIRE RESISTANCE CONSTRUCTION.	X			3909

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FSAR	9. 5. 1. 3.G.F.6	FIRE PROTECTION PROGRAM SAFETY EVALUATION FIRE RESISTANCE REQUIREMENTS FOR SAFETY RELATED CAT. I STRUCTURES.	SECONDARY STRUCTURAL FLOOR SUPPORTING MEMBERS- 2H FIRE RESISTANCE CONSTRUCTION.	X		3910
FSAR	9. 5. 1. 3.G.F.7	FIRE PROTECTION PROGRAM SAFETY EVALUATION FIRE RESISTANCE REQUIREMENTS FOR SAFETY RELATED CAT. I STRUCTURES.	SECONDARY STRUCTURAL ROOF SUPPORTING MEMBERS-1 1/2 HOUR FIRE RESISTANCE CONSTRUCTION.	X		3911
FSAR	9. 5. 1. 3.G.F.8	FIRE PROTECTION PROGRAM SAFETY EVALUATION FIRE RESISTANCE REQUIREMENTS FOR SAFETY RELATED CAT. I STRUCTURES.	INTERIOR STAIR AND ELEVATOR ENCLOSURE WALLS-2H FIRE RESISTANCE CONSTRUCTION.	X		3912
FSAR	9. 5. 1. 4	FIRE PROTECTION PROGRAM INSPECTION AND TESTING REQUIREMENTS	FIRE PUMPS HYDROSTATICALLY FACTORY TESTED FOR TWICE MAXIMUM SHUTOFF PRESSURE.	X		3913
FSAR	9. 5. 1. 4	FIRE PROTECTION PROGRAM INSPECTION AND TESTING REQUIREMENTS	FIRE PUMPS FIELD TESTED TO 100% OF RATED CAPACITY.	X		3914
FSAR	9. 5. 1. 4	FIRE PROTECTION PROGRAM INSPECTION AND TESTING REQUIREMENTS.	UNDERGROUND FIRE PROTECTION PIPING HYDROSTATICALLY TESTED AT 200psig WITH A LEAKAGE OF 2QT./H/100 JOINTS.	X	X	3915

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FSAR	9. 5. 1. 4	FIRE PROTECTION PROGRAM INSPECTION AND TESTING REQUIREMENTS.	HALON 1301 SYSTEM TESTED BY FULL SYSTEM DISCHARGE	X			3917
FSAR	9. 5. 1. 4	FIRE PROTECTION PROGRAM INSPECTION AND TESTING REQUIREMENTS.	WET STANDPIPE, WET SPRINKLER, AND SPRAY SYSTEM PIPING HYDROSTATICALLY TESTED AT 200psig WITH NO VISIBLE LEAKAGE.	X			3916
FSAR	9. 5. 3. 2.3.A	MAIN CONTROL BOARD EMERG. LIGHTING.	SEALED BEAM LIGHTING FIXTURE WITH 8-H, SELF-CONTAINED BATTERY AND CHARGER.	X			3560
FSAR	9. 5. 3. 2.3.B	SAFE SHUTDOWN PNL EMERGENCY LIGHTING	SEALED BEAM FIXTURES SHALL BE 8-H RATED WITH SELF-CONTAINED BATTERY AND CHARGER UNITS.	X			3561
FSAR	9. 5. 4. 1	DESIGN FOR EMERGENCY D/G FUEL OIL STORAGE AND TRANSFER SYSTEM	RG. 1.137	X			3586
FSAR	9. B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMEB 9.5-1	BTP CMEB 9.5-1, POSITION C.5.c, GENERAL PLANT GUIDELINES, ALTERNATIVE OR DEDICATED SHUTDOWN CAPABILITY	X		SEE POSITION C.1.b	3935
FSAR	9. B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMEB 9.5-1	BTP CMEB 9.5-1, POSITION C.7.a, GUIDELINES FOR SPEC. PLANT AREAS, PRIMARY AND SECONDARY CONTAINMENT	X			3946
FSAR	9.A.1	FIRE HAZARDS ANALYSIS FIRE AREA BOUNDARIES.	FIRE RATINGS OF BARRIERS, DOORS, DAMPERS, AND PENETRATION SEALS OF EACH FIRE AREA.	X		REF. 9A	3922

COMMITMENTS
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MODULE 18B - SORTED BY SOURCE & SECTION

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COMMITMENT SOURCE	COMMITMENT SECTION	COMMITMENT SUBJECT	DOCUMENT/ FEATURE	RESPONS DESIGN	IBILITY CONST	REMARKS	REF NO
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FSAR	9.A.1	FIRE HAZARDS ANALYSIS FIRE ZONE FIRE PROTECTION SYSTEMS AND EQUIPMENT.	FIRE PROTECTION SYSTEMS AND EQUIPMENT PROVIDED FOR EACH FIRE ZONE.	X		REF. 9A	3924
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMRB 9.5-1	BTP CMRB 9.5-1, POSITION C.1.b, FIRE HAZARDS ANALYSIS.	X			3926
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMRB 9.5-1	BTP CMRB 9.5-1, POSITION C.1.c, FIRE SUPPRESSION SYSTEM DESIGN BASIS	X			3927
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMRB 9.5-1	BTP CMRB 9.5-1, POSITION C.1.d, ALTERNATIVE OR DEDICATED SHUTDOWN	X		SEE POSITION C.1.b	3928
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMRB 9.5-1	BTP CMRB 9.5-1, POSITION C4, X QUALITY ASSURANCE PROGRAM.	X		QA PROGRAM IS PART OF OVERALL QA PROGRAM	3932
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMRB 9.5-1	BTP CMRB 9.5-1, POSITION C.5.a, GEN. PLANT GUIDELINES, BLDG. DESIGN.	X			3933
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMRB 9.5-1	BTP CMRB 9.5-1, POSITION C.5.b, GEN. PLANT GUIDELINES, SAFE SHUTDOWN CAPABILITY.	X			3934
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMRB 9.5-1	BTP CMRB 9.5-1, POSITION C.5.d, GEN. PLANT GUIDELINES, CONTROL OF COMBUSTIBLES.	X			3936

COMMITMENTS

MODULE 18B - SORTED BY SOURCE & SECTION

COMMITMENT SOURCE	COMMITMENT SECTION	COMMITMENT SUBJECT	DOCUMENT/ FEATURE	RESPONSIBILITY DESIGN CONST	REMARKS	REF NO
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMEB 9.5-1	BTP CMEB 9.5-1, POSITION C.5.e, GEN. PLANT GUIDELINES, ELEC. CABLE CONSTRUCTION, CABLE TRAYS AND CABLE PENETRATIONS.	X		3937
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMEB 9.5-1	BTP CMEB 9.5-1, POSITION C.5.f, GEN. PLANT GUIDELINES, VENTILATION.	X		3938
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMEB 9.5-1	BTP CMEB 9.5-1, POSITION C.5.g, GEN. PLANT GUIDELINES, LIGHTING AND COMMUNICATION.	X		3939
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMEB 9.5-1	BTP CMEB 9.5-1, POSITION C.6.a, FIRE DETECTION AND SUPPRESSION, FIRE DETECTION	X		3940
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMEB 9.5-1	BTP CMEB 9.5-1, POSITION C.6.b, FIRE DETECTION AND SUPPRESSION, FIRE PROTECTION WATER SUPPLY SYSTEMS	X		3941
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMEB 9.5-1	BTP CMEB 9.5-1, POSITION C.6.c, FIRE DETECTION AND SUPPRESSION, WATER SPRINKLER AND HOSE STANDPIPE SYSTEMS.	X		3942
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMEB 9.5-1	BTP CMEB 9.5-1, POSITION C.6.d, FIRE DETECTION AND SUPPRESSION, HALON SUPPRESSION SYSTEMS.	X		3943
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMEB 9.5-1	BTP CMEB 9.5-1, POSITION C.6.e, FIRE DETECTION AND SUPPRESSION, CARBON DIOXIDE SUPPRESSION SYSTEMS.	X	NO CO2 SYSTEMS AT VEGP - N/A	3944

COMMITMENTS
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MODULE 18B - SORTED BY SOURCE & SECTION

COMMITMENT SOURCE	COMMITMENT SECTION	COMMITMENT SUBJECT	DOCUMENT/ FEATURE	RESPONS DESIGN	IBILITY CONST	REMARKS	REF NO
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FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMEB 9.5-1	BTP CMEB 9.5-1, POSITION C.6.f, FIRE DETECTION AND SUPPRESSION, PORTABLY EXTINGUISHERS.	X			3945
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMEB 9.5-1	BTP CMEB 9.5-1, POSITION C.7.b, GUIDELINES FOR SPECIFIC PLT. AREAS, CONTROL ROOM COMPLEX.	X			3947
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMEB 9.5-1	BTP CMEB 9.5-1, POSITION C.7.c., GUIDELINES FOR SPECIFIC PLT. AREAS, CABLE SPREADING ROOM.	X			3948
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMEB 9.5-1	BTP CMEB 9.5-1, POSITION C.7.d, GUIDELINES FOR SPECIFIC PLT. AREAS, PLANT COMPUTER ROOMS.	X			3949
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMEB 9.5-1	BTP CMEB 9.5-1, POSITION C.7.e, GUIDELINES FOR SPECIFIC PLT. AREAS, SWITCHGEAR ROOMS.	X			3950
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMEB 9.5-1	BTP CMEB 9.5-1, POSITION C.7.f, GUIDELINES FOR SPECIFIC PLT. AREAS, REMOTE SAFETY-RELATED PANELS.	X			3951
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMEB 9.5-1	BTP CMEB 9.5-1, POSITION C.7.g, GUIDELINES FOR SPECIFIC PLT. AREA, SAFETY RELATED BATTERY ROOMS.	X			3952
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMEB 9.5-1	BTP CMEB 9.5-1, POSITION C.7.h, GUIDELINES FOR SPECIFIC PLT. AREAS, TURBINE BLDG.	X			3953

COMMITMENTS
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MODULE 18B - SORTED BY SOURCE & SECTION

COMMITMENT SOURCE	COMMITMENT SECTION	COMMITMENT SUBJECT	DOCUMENT/ FEATURE	RESPONS DESIGN	IBILITY CONST	REMARKS	REF NO
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FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMRB 9.5-1	BTP CMRB 9.5-1, POSITION C.7.i, GUIDELINES FOR SPECIFIC PLT. AREAS, DIESEL GENERATOR AREAS	X			3954
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMRB 9.5-1	BTP CMRB 9.5-1, POSITION C.7.j, GUIDELINES FOR SPECIFIC PLT. AREAS, DIESEL FUEL OIL STORAGE TANK	X			3955
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMRB 9.5-1	BTP CMRB 9.5-1, POSITION C.7.k, GUIDELINES FOR SPECIFIC PLT. AREAS, SAFETY-RELATED PUMPS.	X			3956
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMRB 9.5-1	BTP CMRB 9.5-1, POSITION C.7.l, GUIDELINES FOR SPECIFIC PLT. AREAS, NEW FUEL AREA	X			3957
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMRB 9.5-1	BTP CMRB 9.5-1, POSITION C.7.m, GUIDELINES FOR SPECIFIC PLT. AREAS, SPENT FUEL POOL AREA.	X			3958
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMRB 9.5-1	BTP CMRB 9.5-1, POSITION C.7.n, GUIDELINES FOR SPECIFIC PLT AREAS, RADWASTE AND DECONTAMINATION AREAS.	X			3959
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMRB 9.5-1	BTP CMRB 9.5-1, POSITION C.7.o, GUIDELINES FOR SPECIFIC PLT. AREAS, SAFETY-RELATED WATER TANKS.	X			3960
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMRB 9.5-1	BTP CMRB 9.5-1, POSITON C.7.p, GUIDELINES FOR SPECIFIC PLT. AREAS, RECORDS STORAGE AREAS.	X			3961

COMMITMENTS
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MODULE 18B - SORTED BY SOURCE & SECTION
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COMMITMENT SOURCE	COMMITMENT SECTION	COMMITMENT SUBJECT	DOCUMENT/ FEATURE	RESPONS DESIGN	IBILITY CONST	REMARKS	REF NO
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FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMEB 9.5-1	BTP CMEB 9.5-1, POSITION C.7.q, GUIDELINES FOR SPRCIFIC PLT. AREAS, COOLING TOWERS.	X			3962
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMEB 9.5-1	BTP CMEB 9.5-1, POSITION C.7.r, GUIDELINES FOR SPECIFIC PLT. AREAS, MISC. AREAS.	X			3963
FSAR	9.B	COMPARISON OF VEGP UNITS 1 & 2 WITH REQUIREMENTS OF BTP CMEB 9.5-1	BPT CMEB 9.5-1, POSITION C.8.d, SPECIAL PROTECTION GUIDLELINES, MATERIALS CONTAINING RADIOACTIVITY.	X			3967
NRC QUEST. Q280. CORRES.	4	SEALING OF OPENINGS IN FIRE BARRIERS	SEALS BUILT IN COMPLIANCE WITH PROTOTYPE TESTED BY ASTM E-119	X		RESPONSE TO QUESTION	4143
NRC QUEST. Q280. CORRES.	10	FIRE PUMPS, MOTORS AND CONTROLLERS	NFPA 20,1978	X		RESPONSE TO QUESTION	4144
NRC QUEST. Q280. CORRES.	10	FIRE PUMP SYSTEM	NFPA 20-1978	X		REFER TO NRC QUESTION - RESPONSE FOR TITLE OF STANDARDS. RESPONSE TO QUESTION	4292
NRC QUEST. Q280. CORRES.	10	FIRE PUMP SYSTEM	ANSI C37.04	X		REFER TO NRC QUESTION-RESPONSE FOR TITLE OF STANDARDS. RESPONSE TO QUESTION.	4293
NRC QUEST. Q280. CORRES.	10	FIRE PUMP SYSTEM	ANSI C37.072	X		REFER TO NRC QUESTION-RESPONSE FOR TITLE OF STANDARDS. RESPONSE TO QUESTION.	4294

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MODULE 18B - SORTED BY SOURCE & SECTION
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COMMITMENT SOURCE	COMMITMENT SECTION	COMMITMENT SUBJECT	DOCUMENT/ FEATURE	RESPONS DESIGN	IBILITY CONSL	REMARKS	REF NO
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NRC QUEST. Q280. 10 CORRES.		FIRE PUMP SYSTEM	ANSI N45.2-1971	X		REFER TO NRC QUESTION-RESPONSE FOR TITLE OF STANDARDS. RESPONSE TO QUESTION.	4295
NRC QUEST. Q280. 10 CORRES.		FIRE PUMP SYSTEM	ANSI C37.06	X		REFER TO NRC QUESTION-RESPONSE FOR TITLE OF STANDARDS. RESPONSE TO QUESTION.	4296
NRC QUEST. Q280. 10 CORRES.		FIRE PUMP SYSTEM	ANSI C37.09	X		REFER TO NRC QUESTION-RESPONSE FOR TITLE OF STANDARDS. RESPONSE TO QUESTION.	4297
NRC QUEST. Q280. 10 CORRES.		FIRE PUMP SYSTEM	ANSI C37.20	X		REFER TO NRC QUESTION-RESPONSE FOR TITLE OF STANDARDS. RESPONSE TO QUESTION.	4298
NRC QUEST. Q280. 10 CORRES.		FIRE PUMP SYSTEM	ANSI C37.90	X		REFER TO NRC QUESTION-RESPONSE FOR TITLE OF STANDARDS. RESPONSE TO QUESTION.	4299
NRC QUEST. Q280. 10 CORRES.		FIRE PUMP SYSTEM	ANSI C57.13	X		REFER TO NRC QUESTION-RESPONSE FOR TITLE OF STANDARDS. RESPONSE TO QUESTION.	4300
NRC QUEST. Q280. 10 CORRES.		FIRE PUMP SYSTEM	ANSI N45.2.2-1972	X		REFER TO NRC QUESTION-RESPONSE FOR TITLE OF STANDARDS. RESPONSE TO QUESTION.	4301

COMMITMENTS
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MODULE 18B - SORTED BY SOURCE & SECTION

COMMITMENT SOURCE	COMMITMENT SECTION	COMMITMENT SUBJECT	DOCUMENT/ FEATURE	RESPONS DESIGN	IBILITY CONST	REMARKS	REF NO
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NRC QUEST. CORRES.	Q280. 10	FIRE PUMP SYSTEM	ANSI 755.1	X		RESPONSE TO QUESTION.	4302
NRC QUEST. CORRES.	Q280. 10	FIRE PUMP SYSTEM	IEEE 279	X		RESPONSE TO QUESTION	4303
NRC QUEST. CORRES.	Q280. 10	FIRE PUMP SYSTEM	IEEE 472	X		RESPONSE TO QUESTION.	4304
NRC QUEST. CORRES.	Q280. 10	FIRE PUMP SYSTEM	IPCEA-S-19-81	X		RESPONSE TO QUESTION	4305
NRC QUEST. CORRES.	Q280. 10	FIRE PUMP SYSTEM	NEMA SG5	X		RESPONSE TO QUESTION	4306
NRC QUEST. CORRES.	Q280. 10	FIRE PUMP SYSTEM	UBC	X		RESPONSE TO QUESTION	4307
NRC QUEST. CORRES.	Q280. 12	FIRE DETECTION SYSTEM	IEEE 383	X		RESPONSE TO QUESTION	4308
NRC QUEST. CORRES.	Q280. 12	FIRE DETECTION SYSTEM	CLASS "A" SYSTEM DEFINED IN NFPA 72D-1975 AND CLASS I CIRCUITS DEFINED IN NFPA 70 EXCEPT AS NOTED	X		FOR EXCEPTIONS AND CLARIFICATIONS, REFER TO QUESTION-RESPONSE.	4309
NRC QUEST. CORRES.	Q280. 13	AUTOMATIC SPRINKLER SYSTEMS	NFPA 13	X		RESPONSE	4147
NRC QUEST. CORRES.	Q280. 13	AUTOMATIC SPRINKLER SYSTEMS	NFPA 15	X	X	RESPONSE TO QUESTION	4148
NRC QUEST. CORRES.	Q430. 5-1	MAIN CONTROL BOARD AND REMOTE SHUTDOWN PANEL ILLUMINATION LEVELS OF EMERGENCY LIGHTING.	NUREG 0700	X		RESPONSE TO QUESTION.	4271

IMPLEMENTATION

SORTED BY REFERENCE NUMBER

<u>DOCUMENT/FEATURE</u>	<u>SECTION</u>	<u>DESIGN LAST</u>	<u>DESIGN FIRST</u>	<u>CONST LAST</u>	<u>CONST FIRST</u>	<u>REMARKS</u>	<u>REF NO.</u>
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EXPLANATION OF FIELDS

- | | |
|------------------------------|---|
| DOCUMENT/FEATURE | - The document discussed in the FSAR section or the plant feature described in the FSAR section. (See Commitment Matrix.) |
| SECTION | - The section of the document/feature that is being discussed |
| DESIGN LAST,
CONST LAST | - "Last" indicates the project document currently containing the information found in the commitment |
| DESIGN FIRST,
CONST FIRST | - "First" indicates the project document that contained the information found in the commitment when the activities governed by the document first began. |
| REF NO. | - A reference number that corresponds to the appropriate line entry in the commitment matrix. |

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER
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DOCUMENT/FEATURE =====	SECTION =====	DESIGN LAST =====	DESIGN FIRST =====	CONST LAST =====	CONST FIRST =====	REMARKS =====	REF NO =====
10CFR50, APP. A, GDC 3 (PREFERRED POWER SOURCES)		DC-1801-3.1.H, REV. 3, 7-19-83, DC-1810-3.1.2, REV. 7, 9-24-83	DC-1801-3.1.H, REV. 2, 11-26-80, DC-1810-3.1.2, REV. 6, 10-3-83				40.00
AUTOMATIC SPRINKLERS ARE PROVIDED FOR ALL SAFETY-RELATED CABLE TRAYS		DC-1809-3.1.3, REV. 5, 9-20-85, X4AX03-ATTACHMEN T 1, REV. 8, 11-11-85	DC-1809-3.1.3, REV. 3, 2-6-78, X4AX03-ATTACHMEN T 1, REV. 0, 4-27-82				91.00
FIRE STOPS ARE USED IN LONG VERTICAL RUNS OF TRAY AT INTERVALS OF UP TO 20 FT. OR AT A POINT LEVEL WITH ADJACENT FLOORS		DC-1809-3.1.1, REV. 5, 9-20-85	DC-1809-3.1.1, REV. 3, 2-6-78				92.00
REG. GUIDE 1.29		DC-2303-3.1, REV. 2, 4-28-83, DMCN-2303-1, 7-12-83, DC-2301-3.2.G.9, REV. 5, 8-14-79, X4AX03-2.1.B, REV. 8, 11-11-85	DC-2303-3.1, REV. 0, 7-20-78, DC-2301-3.0.G.7, REV. 3, 4-27-77, X4AX03-2.1.B, REV. 0, 4-27-82				685.00
RG 1.61, 10/73		DC-1000-C, APPENDIX E, REV. 3, 9-30-83, DC-1017-1.0, REV. 4, 8-9-85	DC-1000-C, APPENDIX E, REV. 1, 11-22-77, DC-1017-1.0, REV. 1, 1-24-83				707.00

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MODULE 18B - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
BTP-CMEB 9.5-1		SEE REMARKS				SEE REF. NO. 1583 FOR DESIGN IMPLEMENTATION	784.00
10CFR50, APP. A, GDC 2		DC-2303-3.1, REV. 3, 4-28-83, DC-1017-3.3.1, REV. 4, 8-9-85	DC-2303-3.1, REV. 3, 4-28-83, DC-1017-3.3.1, REV. 1, 1-24-83				785.00
NEPA		DC-1002-2.0, REV. 2, 8-14-79, DC-1000-A-3.3, REV. 1, 12-4-85, DC-1225-2.2, REV. 1, 2-11-85, DC-1324-2.0, REV. 0, 10-18-77, DC-1408-2.0, REV. 4, 10-18-81, DC-1504-2.0.I, REV. 5, 8-2-83, DC-1505-2.0.J, REV. 5, 7-26-83, DC-1511-2.0.G, REV. 4, 8-2-83	DC-1002-2.0, REV. 2, 8-14-79, DC-1000-A-3.3, REV. 0, 6-19-79, DC-1225-2.2, REV. 0, 4-3-78, DC-1324-2.0, REV. 0, 10-18-77, DC-1408-2.0, REV. 2, 6-27-77, DC-1504-2.0.I, REV. 4, 9-29-78, DC-1505-2.0.J, REV. 4, 10-23-78, DC-1511-2.0.G, REV. 3, 10-13-78				786.01

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
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NFPA		DC-1515-2.0.F, REV. 1, 8-5-83, DC-1521-2.0.D, REV. 1, 1-3-78, DC-1524-2.0.D, REV. 3, 8-2-83, DC-1526-2.0.A, REV. 0, 9-21-83, DC-1531-2.0.M, REV. 3, 8-9-83, DC-1532-2.0.J, REV. 3, 8-1-83, DC-1533-2.0.D, REV. 2, 8-5-83, DC-1535-2.0.F, REV. 2, 8-2-83	DC-1515-2.0.G, REV. 0, 9-27-78, DC-1521-2.0.D, REV. 1, 1-3-78, DC-1524-2.0.D, REV. 2, 3-23-77, DC-1526-2.0.A, REV. 0, 9-21-83, DC-1531-2.0.O, REV. 1, 8-15-77, DC-1532-2.0.Q, REV. 0, 6-27-74, DC-1533-2.0.D, REV. 1, 5-26-77, DC-1535-2.0.F, REV. 1, 10-13-78				786.02
NFPA		DC-1537-2.0.D, REV. 0, 5-27-77, DC-1539-2.0.I, REV. 2, 8-9-83, DC-1541-2.0.J, REV. 1, 9-29-78, DC-1542-2.0.L, REV. 1, 9-29-78, DC-1548-2.0.H, REV. 0, 12-27-82, DC-1550-2.0.H, REV. 0, 4-14-83, DC-1551-2.0.G, REV. 2, 8-17-83, DC-1553-2.0.O, REV. 2, 8-2-83	DC-1537-2.0.D, REV. 0, 5-27-77, DC-1539-2.0.H, REV. 1, 9-29-78, DC-1541-2.0.J, REV. 0, 8-22-77, DC-1542-2.0.L, REV. 0, 8-22-77, DC-1548-2.0.H, REV. 0, 12-27-82, DC-1550-2.0.H, REV. 0, 4-14-83, DC-1551-2.0.G, REV. 0, 6-8-77, DC-1553-2.0.O, REV. 2, 8-2-83				786.03

IMPLEMENTATION
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DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
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NFPA		DC-1557-2.0.F, REV. 0, 11-18-82, DC-1561-2.0.K, REV. 2, 8-2-83, DC-1563-2.0.K, REV. 0, 9-21-83, DC-1566-2.0.F, REV. 2, 8-2-83, DC-1590-2.0.H, REV. 1, 7-26-83, DC-1808-2.0, REV. 4, 11-7-85, DC-1811-2.0, REV. 1, 5-6-80, DC-1813-2.0, REV. 3, 4-18-83	DC-1557-2.0.F, REV. 0, 11-18-82, DC-1561-2.0.D, REV. 0, 11-22-77, DC-1563-2.0.K, REV. 0, 9-21-83, DC-1566-2.0.H, REV. 0, 8-8-77, DC-1590-2.0.H, REV. 0, 8-18-78, DC-1808-2.0, REV. 4, 11-7-85, DC-1811-2.0, REV. 0, 9-27-77, DC-1813-2.0, REV. 1, 5-9-77				786.04
NFPA		DC-1817-2.0, REV. 4, 6-11-84, DC-2301-2.0, REV. 5, 8-14-79, DC-2303-2.0, REV. 3, 4-28-83, DC-2304-2.0, REV. 2, 4-28-83, DC-2403-2.0.E, REV. 3, 5-2-79, DC-2406-2.0, REV. 2, 10-5-82, DC-2418-2.0, REV. 1, 4-29-82, DC-2506-2.0, REV. 1, 10-31-77	DC-1817-2.0, REV. 3, 4-12-77, DC-2301-2.0, REV. 3, 4-27-77, DC-2303-2.0, REV. 0, 7-20-78, DC-2304-2.0, REV. 0, 1-19-78, DC-2403-2.0.E, REV. 2, 12-6-77, DC-2406-2.0, REV. 2, 10-5-82, DC-2418-2.0, REV. 0, 7-1-77, DC-2506-2.0, REV. 0, 6-27-77				786.05

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
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NFPA		DC-2508-2.0, REV. 0, 11-2-79, DC-2510-2.0.K, REV. 0, 4-5-84, DC-2511-2.0.K, REV. 0, 4-5-84, DC-2512-2.0.K, REV. 0, 4-5-84, DC-2514-2.0.K, REV. 0, 10-1-81, DC-2515-2.0.K, REV. 0, 4-21-80, DC-2517-2.0.K, REV. 0, 4-21-80, DC-2518-2.0.K, REV. 1, 11-21-80	DC-2508-2.0, REV. 0, 11-2-79, DC-2510-2.0.K, REV. 0, 4-5-84, DC-2511-2.0.K, REV. 0, 4-5-84, DC-2512-2.0.K, REV. 0, 4-5-84, DC-2514-2.0.K, REV. 0, 10-1-81, DC-2515-2.0.K, REV. 0, 4-21-80, DC-2517-2.0.K, REV. 0, 4-21-80, DC-2518-2.0.K, REV. 1, 11-21-80				786.06
NFPA		DC-2519-2.0.K, REV. 1, 4-5-84, DC-2520-2.0.K, REV. 0, 10-1-79, DC-2523-2.0.K, REV. 0, 10-1-81, DC-2524-2.0.I, REV. 0, 10-1-81, X4AX03-2.1.1, REV. 7, 10-8-85, X3AQ01-2.3.C, REV. 5, 10-21-85, X4AJ21-2.0, REV. 7, 10-21-85, X4AF14-2.0, REV. 3, 11-1-83	DC-2519-2.0.K, REV. 0, 4-21-80, DC-2520-2.0.K, REV. 0, 10-1-79, DC-2523-2.0.K, REV. 0, 10-1-81, DC-2524-2.0.I, REV. 0, 10-1-81, X4AX03-2.1.1, REV. 0, 4-27-82, X3AQ01-2.3.C, REV. 0, 1-11-80, X4AJ21-2.0, REV. 0, 10-6-80, X4AF14-2.0, REV. 0, 11-1-73				786.07

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
NFPA		X3AQ09-2.3.C, REV. 2, 2-13-85	X3AQ09-2.3.C, REV. 0, 6-27-84				786.08
BTP APCSB 9.5-1, APP. A		SEE REMARKS				FOR DESIGN IMPLEMENTATIO N, SEE REF. NO. 1581, 3934 AND 3935	788.00
10CFR50, APP. A, GDC 3		SEE REMARKS				SEE REF. NO. 1582 FOR DESIGN IMPLEMENTATIO NS	789.00
10CFR50, APP. A, GDC 4		DC-1001-1.0, REV. 1, 8-30-83, DC-1006-1.0, REV. 2, 7-13-85, DC-1017-1.0, REV. 4, 8-9-85, DC-1018-1.0, REV. 2, 10-11-83, DMCN-1018-2, 5-15-85, DC-1000-A-1.0, REV. 1, 12-4-85, DC-1000-C-1.0, REV. 3, 9-30-83, DC-1000-E-1.0, REV. 6, 8-29-85	DC-1001-1.0, REV. 0, 1-24-78, DC-1006-1.0, REV. 0, 12-19-77, DC-1017-1.0, REV. 0, 1-19-78, DC-1018-1.0, REV. 0, 12-13-77, DC-1000-A-1.0, REV. 0, 6-19-79, DC-1000-C-1.0, REV. 0, 2-28-74, DC-1000-E-1.0, REV. 0, 7-24-73, DC-1000-N-1.0, REV. 0, 6-1-73				790.01

IMPLEMENTATION

MODULE 18B - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
10CFR50, APP. A, GDC 4		DC-1000-N-1.0, REV. 3, 5-2-83, DC-1000-J-1.0, REV. 4, 4-4-85, DC-1003-1.0, REV. 2, 6-29-83, DC-1004-1.0, REV. 3, 8-23-83	DC-1000-J-1.0, REV. 0, 5-10-73, DC-1003-1.0, REV. 0, 1-12-78, DC 1004-1.0, REV. 0, 8-14-78				790.02
10CFR50, APP. A, GDC 5		DC-1001-1.0, REV. 1, 8-30-83, DC-1000-A-1.0, REV. 1, 12-4-85, DC-1000-C-1.0, REV. 3, 9-30-83, DC-1000-E-1.0, REV. 6, 8-29-85, DC-1000-J-1.0, REV. 4, 4-4-85, DC-2303-1.0, REV. 2, 4-28-83, DC-2304-1.0, REV. 2, 4-28-83, DC-1000-M-3.4, REV. 2, 4-12-78	DC-1000-1.0, REV. 0, 1-24-78, DC-1000-A-1.0, REV. 0, 6-19-79, DC-1000-C-1.0, REV. 0, 2-28-74, DC-1000-E-1.0, REV. 0, 7-24-73, DC-1000-J-1.0, REV. 0, 5-10-73, DC-2303-1.0, REV. 2, 4-28-83, DC-2304-1.0, REV. 2, 4-28-83, DC-1000-M-3.4, REV. 0, 5-1-73				791.00
10CFR50, APP. A, GDC 10		DC-1201-2.0, 3.1, REV. 2, 3-9-84, DMCN-1201-1, 7-23-84	DC-1201-2.0, 3.1, REV. 1, 4-21-83				792.00

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
NOTE (V): BTP CMEB 9.5-1, APP. A, FIRE PROTECTION (FSAR TABLE 3.2.2-1)		VOGTLE PROJECT POLICIES & PROCEDURE MANUAL, SECTION C.7.6, REV. 1, 1-2-85	VOGTLE PROJECT POLICIES & PROCEDURE MANUAL, SECTION C.7.6, REV. 1, 1-2-85				848.00
NOTE (X): FIRE PROTECTION STAND PIPE PROJECT CLASS 313 TO ENSURE IMPLEMENTATION OF A SEISMIC CAT. I, ASME III-3 (FSAR TABLE 3.2.2-1)		DC-2303-3.1, REV. 3, 4-28-83, DMCN-2303-1, 7-12-83	DC-2303-3.2.3, REV. 4, 12-19-77				850.00
NEMA MG1-1972 (NATIONAL ELECTRICAL MFRS ASSOC.) MOTORS/GENERATORS		X4AF14-2.0, REV. 3, 11-1-83, DC-1000-E-2.0.B. 5, REV. 6, 8-29-85	X4AF14-2.0, REV. 0, 11-1-73, DC-1000-E-2.0.B. 6, REV. 2, 12-13-77				865.00
NEMA MG1-1972 (NATIONAL ELECTRICAL MFRS ASSOC.) MOTORS/GENERATORS		SEE REMARKS				FOR DESIGN IMPLEMENTATIO N, REFER TO REF. NO. 865	867.00
NFPA (PRINCIPAL CODES AND STANDARDS FOR TABLE T.3.2.2-1)		DC-2301-2.0, REV. 6, 8-14-79, DC-2303-2.0, REV. 3, 4-28-83, DC-2304-2.0, REV. 2, 4-28-83, X4AF14-2.0, REV. 3, 11-1-83, X4AH05-2.0, REV. 3, 6-17-85, X4AX03-2.0, REV. 7, 9-9-85	DC-2301-2.0, REV. 3, 4-27-77, DC-2303-2.0, REV. 0, 7-20-78, DC-2304-2.0, REV. 0, 1-19-78, X4AF14-2.0, REV. 0, 1-19-78, X4AH05-2.0, REV. 0, 2-14-74, X4AX03-2.0, REV. 0, 4-27-82				873.00

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURR	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
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ASME SEC. III, CLASS 1, 2, 3 OR MC, NF OR CS		DC-2303-3.1, REV. 3, 4-28-83	DC-2303-3.1, REV. 0, 7-20-78				880.00
ANSI B31.1		DC-2301-3.2.G.9, REV. 5, 8-14-79, DMCN-2301-7, 4-16-84, DC-1017-2.2, TABLE 1, REV. 4, 8-9-85, DMCN-1017-4, 12-30-85	DC-2301-3.2.G.9, REV. 3, 4-27-77, DC-1017-2.2, TABLE 1, REV. 1, 1-24-83				884.00
ASME B & PV, SEC. III, DIV. 1, SUBSECTION ND, CLASS 3		DC-2303-3.1, 3.3.D, REV. 3, 4-28-83, DMCN-2303-1, 7-12-83	DC-2303-3.3.D, REV. 0, 7-20-78				889.00
AWWA		DC-2301-2.0, REV. 5, 8-14-79, X2AC01, REV. 3, 3-4-77	DC-2301-2.0, REV. 4, 12-19-77, X2AC01, REV. 0, 5-6-74				911.00
BC-TOP-4A		DC-1000-C-2.3.C, REV. 3, 9-30-83, DC-1005-2.0.E, REV. 1, 4-4-83	DC-1000-C-2.3.C, REV. 1, 11-22-77, DC-1005-2.0.E, REV. 0, 3-10-80				1011.00

IMPLEMENTATION
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MODULE 185 - SORTED BY REFERENCE NUMBER
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DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
RG 1.84, REV. 20, 11/82		DC-1017-1.0, REV. 4, 8-9-85	DC-1017-1.0, REV. 1, 1-24-83				1565.00
RG 1.85, REV. 20, 11/82		DC-1017-1.0, REV. 4, 8-9-85	DC-1017-1.0, REV. 1, 1-24-83				1569.00
10CFR50, APP. A, GDC 3		DC-1001-1.0, REV. 1, 8-30-83, DC-1002-1.0, REV. 2, 8-14-79, DC-1000-E-1.0, REV. 6, 8-29-85, DC-1000-C-1.0, REV. 3, 9-30-83, DC-1000-A-1.0, REV. 1, 12-4-85, DC-2301-1.0, REV. 5, 8-14-79, DC-2303-1.0, REV. 2, 4-28-83, DC-2304-1.0, REV. 2, 4-28-83	DC-1000-1.0, REV. 0, 1-24-78, DC-1002-1.0, REV. 0, 12-20-77, DC-1000-E-1.0, REV. 0, 7-24-73, DC-1000-C-1.0, REV. 0, 2-28-74, DC-1000-A-1.0, REV. 0, 6-19-79, DC-2301-1.0, REV. 3, 4-27-77, DC-2303-1.0, REV. 0, 7-20-78, DC-2304-1.0, REV. 0, 1-19-78				1582.01
10CFR50, APP. A, GDC 3		DC-1000-M-3.4, REV. 2, 4-28-83	DC-1000-M, REV. 0, 5-1-73				1582.02
BTP CMEB 9.5-1		528 REMARKS				FOR DESIGN IMPLEMENTATIO N, SEE REF. NO. 3925 THRU 3967	1583.00

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER
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DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
RG 1.141, REV. 0, 4/78		DC-2415-1.0, REV. 1, 5-16-83	DC-2415-1.0, REV. 1, 5-16-83				1595.00
ANSI N271-1976		DC-2415-2.0, REV. 1, 5-16-83	DC-2415-2.0, REV. 0, 3-23-78				1596.00
10CFR50, APP. A, GDC 56		DC-2415-3.1.8, REV. 1, 5-16-83	DC-2415-2.0, REV. 0, 3-23-78				1597.00
RG 1.29		SEE REMARKS				FOR DESIGN IMPLEMENTATIO N, SEE REF. NO. 685	1734.00
N.M.L. (NUCLEAR MUTUAL LIMITED - PROPERTY LOSS PREVENTION STANDARDS FOR NUCLEAR GENERATING STANDARDS, JUNE 1978)		DC-2301-2.0, REV. 5, 8-14-79, DC-2304-2.0, REV. 2, 4-28-83, DC-1000-A-3.9, REV. 1, 12-4-85, DC-1000-E-2.0.4, REV. 6, 8-29-85, DC-1000-M-3.5, REV. 2, 4-12-78, DC-1002-2.0, REV. 2, 8-14-79, DC-1811-2.0, REV. 1, 5-8-80, DC-1813-2.0, REV. 3, 4-18-83	DC-2301-2.0, REV. 0, 5-30-74, DC-2304-2.0, REV. 1, 8-14-79, DC-1000-A-3.9, REV. 0, 6-19-79, DC-1000-E-2.0.4, REV. 5, 4-3-84, DC-1000-M-3.5, REV. 1, 8-22-74, DC-1002-2.0, REV. 2, 8-14-79, DC-1811-2.0, REV. 0, 9-27-77, DC-1813-2.0, REV. 3, 4-18-84			SEE PROJECT RESPONSE TO RRF 18B-1	1942.01

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
N.M.L. (NUCLEAR MUTUAL LIMITED - PROPERTY LOSS PREVENTION STANDARDS FOR NUCLEAR GENERATING STANDARDS, JUNE 1978)		X4AF14-2.0, REV. 3, 11-1-83, X1AG11-2.0, REV. 6, 10-23-85, X4AP01-2.0, REV. 8, 9-6-85, X3AQ09-2.3.C, REV. 2, 2-13-85, X3AQ01-2.3.C, REV. 6, 10-21-85, X4AX03-2.1.10, REV. 8, 11-11-85, DC-2110-2.0, 3.7.D, REV. 7, 9-21-83	X4AF14-2.0, REV. 0, 11-1-73, X1AG11-2.0, REV. 0, 11-13-81, X4AP01-2.0, REV. 0, 12-18-80, X3AQ09-2.3.C, REV. 0, 6-27-84, X3AQ01-2.3.C, REV. 0, 1-11-80, X4AX03-2.1.10, REV. 0, 4-27-82, DC-2110-2.0, 3.7.D, REV. 5, 3-10-78			SEE PROJECT RESPONSE TO RRF 18B-1	1942.02
10CFR50, APP. A, GDC 54 - PIPING SYSTEM PENETRATION OF CONTAINMENT		SEE REMARKS				FOR DESIGN IMPLEMENTATION, SEE REF. NO. 817	2025.00
10CFR50, APP. J		DC-1222-2.0, REV. 1, 5-9-83	DC-1222-2.0, REV. 1, 5-9-83				2026.00
10CFR50, APP. A, GDC 57		DC-2301-3.2.G.2 & 3, REV. 5, 8-14-79, DC-2415-1.0, REV. 1, 5-16-83	DC-2301-3.2.G.2 & 3, REV. 5, 8-14-79, DC-2415-1.0, REV. 0, 5-16-83				2028.00

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

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DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
10CFR50, APP. A, GDC 54 (PIPING SYSTEMS PENETRATING CONTAINMENT)		DC-2415-1.0, REV. 1, 5-16-83, DC-1222-1.0, REV. 1, 5-9-83	DC-2415-1.0, REV. 0, 5-16-83, DC-1222-1.0, REV. 0, 7-9-79				2055.00
10CFR50, APP. A, GDC 57 (CLOSED SYSTEM ISOLATION VALVES)		SEE REMARKS				SEE REF. NO. 2057.00 DESIGN IMPLEMENTATIO N	2057.00
THREE HOUR CURTAIN TYPE FIRE DAMPERS LOCATED, AS NECESSARY, BETWEEN FIRE WALLS TO MAINTAIN FIRE RATINGS OF BARRIERS		X4AJ21-ATTACHMEN T 1, REV. 7, 10-21-85, SEE REMARKS	X4AJ21-ATTACHMEN T 1, REV. 0, 10-6-80			DAMPER TYPE SHOWN ON VENDOR DRAWINGS	3458.00
TWO SEPARATE DETECTORS REQUIRED TO ACTUATE HALON 1301 SYSTEM		DC-1813-3.3.F, REV. 3, 4-18-83, X4AX03-4.3.6.A, REV. 8, 11-11-85	DC-1813-3.3.F, REV. 3, 4-18-83, X4AX03-4.3.6.A, REV. 0, 4-27-82				3558.00
SEALED BEAM LIGHTING FIXTURE WITH EIGHT HOUR, SELF-CONTAINED BATTERY AND CHARGER		DC-1808-3.0.C.3, REV. 3, 3-5-81	DC-1808-3.0.C.3, REV. 3, 3-5-81				3560.00
SEALED BEAM FIXTURES SHALL BE EIGHT HOUR RATED WITH SELF-CONTAINED BATTERY AND CHARGER UNITS		SEE REMARKS				SEE REF. NO. 3561.00 DESIGN IMPLEMENTATIO N	3561.00

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
EIGHT HOUR SEALED BEAM FIXTURES		DC-1808-3.0.C, REV. 3, 3-5-81	DC-1808-3.0.C, REV. 3, 3-5-81				3585.00
RG 1.137		DC-2403-1.0, REV. 3, 5-2-79, X4AK01-2.0.15, REV. 7, 11-5-85	DC-2403-1.0, REV. 3, 5-2-79, X4AK01-2.0.15, REV. 1, 9-12-78				3586.00
BTP-CMEB 9.5-1		SEE REMARKS				SEE REF. NO. 1583 FOR DESIGN IMPLEMENTATIO NS	3654.00
BTP MEB 3-1		DC-1018-1.0, REV. 2, 10-11-83, DC-1003-1.0, REV. 2, 6-29-83	DC-1003-1.0, REV. 0, 12-13-77, DC-1003-1.0, REV. 0, 1-12-78				3656.00
STRUCTURAL STEEL MEMBERS SUPPORTING FIRE BARRIERS ARE PROTECTED TO SAME HOURLY FIRE RATING AS FIRE BARRIER		DC-1000-A-4.3, REV. 1, 12-4-85, X1AG10, REV. 2, 5-11-82	DC-1000-A-4.3, REV. 0, 6-19-79, X1AG10, REV. 0, 4-4-79				3657.00
NFPA 30		DC-2403-2.0.E, REV. 3, 5-2-79	DC-2403-2.0.E, REV. 2, 12-6-77				3658.00

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

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DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
BULK STORAGE OF COMPRESSED OR CRYOGENIC GASES IS NOT PERMITTED WITHIN STRUCTURES HOUSING SAFETY RELATED EQUIPMENT		DC-2402-3.0.B, REV. 2, 4-29-82, DC-1325-4.0, REV. 1, 4-29-82, DC-2418-2.0, 3.2.A, REV. 1, 4-29-82	DC-2402-3.0.B, REV. 1, 2-11-77, DC-1325-4.0, REV. 1, 4-29-82, DC-2418-2.0, 3.2.A, REV. 0, 7-1-77				3659.00
BULK FLAMMABLE GASES STORED OUTDOORS OR IN SEPERATE DETACHED BUILDINGS AND ARE NOT EXPOSED TO SAFETY RELATED EQUIPMENT SYSTEMS OR STRUCTURES		DC-2406-2.0, 3.2.C, REV. 2, 10-5-82	DC-2406-2.0, 3.2.C, REV. 1, 4-4-77				3660.00
OIL FILLED TRANSFORMERS IN SWITCHYARD ARE MIN. OF 50 FT. FROM SAFETY RELATED STRUCTURES		DC-1801-3.2.H, REV. 3, 7-19-83, DC-1802-4.0.B, REV. 1, 11-7-80	DC-1801-3.2.H, REV. 3, 7-19-83, DC-1802-4.0.B, REV. 1, 11-7-80				3662.00
REDUNDANT SAFETY DIVISION TRAINS A AND B ARE IN INDIVIDUAL CABLE SPREADING ROOMS, SEPARATED BY THREE HOUR FIRE BARRIERS		DC-1810-3.1.2.C, REV. 7, 9-24-85	DC-1810-3.1.2.C, REV. 6, 10-3-83				3663.00
SEPARATION OF REDUNDANT TRAINS		DC-1810-3.1.2, REV. 7, 9-24-85	DC-1810-3.1.2, REV. 6, 10-3-83				3664.00

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

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DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
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SEPARATION BY THREE HOUR FIRE BARRIER		DC-1810-3.1.2, REV. 7, 9-24-85, DC-1000-A-4.3, REV. 1, 12-4-85, DC-1002-3.3.8.E, REV. 2, 8-14-79	DC-1810-3.1.2, REV. 6, 10-3-83, DC-1000-A-4.3, REV. 0, 6-19-79, DC-1002-3.3.8.E, REV. 2, 8-14-79				3665.00
MINIMUM 20 FT. SEPARATION WITH NO INTERVENING COMBUSTIBLE HAZARDS		DC-1810-3.1.2.D. 2, REV. 7, 9-24-85	DC-1810-3.1.2.D. 2, REV. 6, 10-3-83			IMPLEMENTATIO N PER BTP CMER 9.5-1, SECTION 5.b.2.b AS INVOKED IN REFERENCED DESIGN DOCUMENTS	3666.00
SAFETY RELATED CHARCOAL FILTER ASSEMBLIES HAVE A DELUGE SYSTEM		DC-2301-3.2.G.5, REV. 5, 8-14-79, X4AJ07-11.0, REV. 10, 9-24-85	DC-2301-3.2.G.5, REV. 5, 8-14-79, X4AJ07-11.0, REV. 1, 7-7-78				3667.00
MANUAL FIRE SUPPRESSION SYSTEMS PROVIDED OVER CHARCOAL FILTER HOUSING		SEE REMARKS				REFER TO REF. NO. 3667 FOR DESIGN IMPLEMENTATIO N	3668.00

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER
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DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
DOORS THRU FIRE BARRIERS HAVE FIRE RATING COMMENSURATE WITH FIRE BARRIER		DC-1000-A-3.1.1. C, REV. 1, 12-4-85, X1AH01-4.1.4.D, REV. 3, 7-25-85	DC-1000-A-3.1.1. C, REV. 0, 6-19-79, X1AH01-4.1.4.D, REV. 0, 1-29-81				3669.00
CABLE, CABLE TRAYS, CONDUITS AND PIPING PENETRATIONS OF FIRE BARRIERS HAVE SEALS WITH SAME HOURLY RATING AS BARRIER		DC-1809-3.1.1, REV. 4, 1-21-82, X1AG11, REV. 3, 1-11-85	DC-1809-3.1.1, REV. 3, 2-6-78, X1AG11, REV. 0, 11-13-85				3670.00
VENTILATION SYSTEM PENETRATION OPENING WILL HAVE FIRE DAMPERS WITH RATING EQUIVALENT TO FIRE BARRIER		X4AJ21-3.1, ATTACHMENT 1, REV. 7, 10-21-85	X4AJ21-3.1, ATTACHMENT 1, REV. 0, 10-6-80				3671.00
FLEXIBLE AIR DUCT COUPLINGS IN VENT AND FILTER SYSTEMS WILL BE NON-COMBUSTIBLE		X4AJ01-H-6.3.1, REV. 18, 9-13-85	X4AJ01-H-6.3.1, REV. 18, 9-13-85				3672.00
FUSIBLE LINK CLOSING AND MANUAL REOPENING FIRE DAMPERS USED WHERE NON-SAFETY RELATED DUCTWORK PENETRATES FIRE BARRIERS AND FIRE TOWER WALLS		X4AJ21-4.3, REV. 7, 10-21-85	X4AJ21-4.3, REV. 0, 10-6-80				3673.00

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
ELEVATORS AND LIFE SAFETY STAIRWELLS ENCASED IN CONCRETE SHAFTS WITH TWO HOUR FIRE RATINGS AND CLASS B SELF-CLOSING SIMILARLY RATED DOORS		DC-1000-A-4.3.2, 3.3.1, REV. 1, 12-4-85	DC-1000-A-4.3.2, 3.3.1, REV. 0, 6-19-79			IMPLEMENTATIO N PER NFPA 101, CHAPTERS 6 & 7 AND CMES 9.5-1 AS INVOKED IN REFERENCED DESIGN DOCUMENTS	3674.00
WALLS AND STRUCTURAL MATERIALS ARE NON-COMBUSTIBLE		DC-1000-A-4.3, REV. 1, 12-4-85	DC-1000-A-4.3, REV. 0, 6-19-79				3675.00
INTERIOR FINISH MATERIALS ARE NON-COMBUSTIBLE OR HAVE A FLAME SPREAD, SMOKE AND FUEL CONTRIBUTION OF 25 OR LESS		DC-1000-A-3.1.1. B, REV. 1, 12-4-85	DC-1000-A-3.1.1. B, REV. 1, 12-4-85				3676.00
ELECTRIC WIRING TO LIGHTING AND HVAC ABOVE SUSPENDED CEILINGS IS ENCLOSED IN CONDUIT		DC-1810-3.1.2.C, REV. 7, 9-24-85, XLANO2-4.2, REV. 1, 10-12-85	DC-1810-3.1.2.C, REV. 6, 10-3-83, XLANO2-4.2, REV. 0, 11-19-79				3677.00
AUTO. FUSIBLE LINK CLOSING AND MANUAL REOPENING FIRE DAMPERS ARE PROVIDED IN VENTILATION OPENINGS THRU FIRE BARRIER WALLS WHICH ARE NOT PROVIDED WITH DUCTWORK ON EITHER SIDE		SEE REMARKS				FOR DESIGN IMPLEMENTATIO N, SEE REF. NO. 3673	3678.00

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER
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DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
STAIRWELLS HAVE A MIN. 1 1/2 HOUR RATED FIRE DOOR		SEE REMARKS				FOR DESIGN IMPLEMENTATIO N, REFER TO REF. NO. 3674	3679.00
WIRING RUNS OUTSIDE CABLE TRAYS ENCLOSED IN METAL CONDUIT		DC-1000-E-3.1.2. H, REV. 6, 8-29-85	DC-1000-E-3.1.2. H, REV. 3, 6-19-81				3680.00
IEEE 383-74		DC-1000-E-2.0.D, REV. 6, 8-29-85, DC-1809-2.0, REV. 4, 1-21-82, X3AJ01-2.0, REV. 5, 5-9-85, X3AJ02-2.0, REV. 12, 8-16-85, X3AJ04-2.0, REV. 9, 6-27-85	DC-1000-E-2.0.D, REV. 2, 12-13-77, DC-1809-2.0, REV. 3, 2-6-78, X3AJ01-2.0, REV. 0, 2-23-79, X3AJ02-2.0, REV. 1, 2-14-79, X3AJ04-2.0, REV. 0, 5-9-78				3681.00
CABLE TRAY CONSTRUCTION MATERIALS ARE NON-COMBUSTIBLE		X3AH01-3.0, REV. 15, 2-25-85, DC-1810-3.1.1.H, REV. 7, 9-24-85	X3AH01-3.0, REV. 2, 2-7-79, DC-1810-3.1.1.H, REV. 6, 10-3-83				3682.00
INTERIOR TRANSFORMERS ARE DRY TYPE		DC-1805-3.0.C.2, REV. 6, 8-6-85	DC-1805-3.0.C.2, REV. 2, 9-27-77				3683.00

IMPLEMENTATION
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MODULE 188 - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
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WFPA 803-1978	6.3	X1AG11-2.0, REV. 5, 10-23-85, DC-1809-3.1.1.A, REV. 4, 1-21-82	X1AG11-2.0, REV. 0, 11-13-81, DC-1809-3.1.1.A, REV. 3, 2-6-78				3684.00
SMOKE DETECTORS ARE PROVIDED FOR ALL SAFE SHUTDOWN CABLE TRAY RUNS THROUGHOUT THE PLANT		DC-1809-3.1.2, REV. 4, 1-21-82	DC-1809-3.1.2, REV. 3, 2-6-78				3685.00
LINE TYPE FIRE DETECTORS ARE PROVIDED IN CONTAINMENT CABLE TRAYS		X3AQ01-4.5.C, REV. 5, 12-21-85, X4AX03-4.5.2.E, REV. 8, 11-11-85	X3AQ01-4.5.C, REV. 0, 1-11-80, X4AX03-4.5.2.E, REV. 0, 4-27-82				3686.00
FOR ESSENTIAL CIRCUITS DURING SAFE SHUTDOWN, ELECTRICAL CABLES ARE DESIGNED TO ALLOW WETTING WITHOUT ELECTRICAL FAULTING		DC-1809-3.1.D, REV. 4, 1-21-82	DC-1809-3.1.D, REV. 3, 2-6-78				3687.00
IN THE CABLE SPREADING ROOMS, CABLING FOR REDUNDANT SAFETY DIVISIONS IS ROUTED IN INDIVIDUAL CABLE SPREADING ROOMS SEPARATELY FOR EACH UNIT AND ARE SEPARATED BY THREE HOUR FIRE BARRIERS		DC-1810-3.1.2.C, REV. 7, 9-24-85	DC-1810-3.1.2.C, REV. 6, 10-3-83				3688.00

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER
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DOCUMENT/FEATURE =====	SECTION =====	DESIGN LAST =====	DESIGN FIRST =====	CONST LAST =====	CONST FIRST =====	REMARKS =====	REF NO =====
HYDRANTS INSTALLED AT A MAXIMUM INTERVAL OF 250 FT. ALONG YARD MAIN.		DC-2301-3.2.4.1, REV. 5, 8-14-79	DC-2301-3.2.4.1, REV. 4, 12-19-77				3689.00
UL LISTED AND/OR FM APPROVED (FIRE EXTINGUISHERS)		X4AX02, REV. 10, 5-17-85	X4AX02, REV. 0, 5-6-81				3690.00
NEPA-10 (FIRE EXTINGUISHERS)		DC-1002-2.0, REV. 2, 8-14-79, DMCN-1002-1, 1-5-83	DC-1002-2.0, REV. 0, 12-20-77			IMPLEMENTATIO N PER NEPA 101 (LIFE SAFETY CODE) AS INVOKED IN REFERENCED DESIGN DOCUMENTS.	3691.00
NEPA 14, CLASS 2 (WET STAND PIPE & HOSE SYSTEM)		DC-2301-2.0, REV. 5, 8-14-79	DC-2301-2.0, REV. 3, 4-27-77				3692.00
INDIVIDUAL STAND PIPES ARE 4 IN. DIAMETER FOR MULTIPLE HOSE CONNECTIONS AND 2.5 IN. DIAMETER FOR SINGLE HOSE CONNECTIONS		DC-2301-3.2.0.4, REV. 5, 8-14-79	DC-2301-3.2.0.4, REV. 3, 4-27-77				3693.00
AN INDEPENDENT SEISMIC DRY STAND PIPE & HOSE SYS. IS INSTALLED IN THE CONTAINMENT, AUX, CONTROL & DIESEL GEN. BLDGS., PROVIDES MANUAL FIRE CONTROL IN AREAS REQUIRED FOR SAFE SHUT DOWN FOLLOWING AN SSE		DC-2303-3.3, REV. 3, 4-28-83	DC-2303-3.3, REV. 0, 7-20-78				3694.00

IMPLEMENTATION
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MODULE 188 - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
ASMR, SEC. III, CLASS 3 (SEISMIC DRY STAND PIPE SYSTEM)		DC-2303-2.0, 3.1, REV. 3, 4-28-83	DC-2303-2.0, REV. 0, 7-20-78				3695.00
TWO SEPARATE HALON 1301 STORAGE TANKS WITH INDIVIDUAL CYLINDER VALVES PROVIDE FOR TWO SEPARATE DISCHARGES IN ANY PROTECTED AREA.		DC-2304-3.3.E, REV. 2, 4-28-83	DC-2304-3.3.E, REV. 0, 1-19-78				3696.00
NEPA 72E		DC-1813-2.0, REV. 3, 4-18-83, X3AQ01-2.3, REV. 5, 10-21-85, X4AX03-2.1, REV. 8, 11-11-85	DC-1813-2.0, REV. 3, 4-18-83, X3AQ01-2.3, REV. 0, 1-11-80, X4AX03-2.1, REV. 0, 4-27-82				3698.00
NEPA 72A		DC-1813-2.0, REV. 3, 4-18-83, X3AQ09-2.3, REV. 2, 2-13-85, X4AX03-2.1, REV. 8, 11-11-85	DC-1813-2.0, REV. 3, 4-18-83, X3AQ09-2.3, REV. 0, 6-27-84, X4AX03-2.1, REV. 0, 4-27-82				3699.00
SERVICE BUILDING RECORD STORAGE FACILITY HAS AN AUTOMATIC HALON 1301 SYSTEM PROVIDING A MINIMUM 5% CONCENTRATION		DC-2519-3.2.6, REV. 1, 4-5-84, DC-2304-3.3.A, REV. 2, 4-28-83	DC-2519-3.2.6, REV. 0, 4-21-80, DC-2304-3.3.A, REV. 1, 8-14-79				3700.00

IMPLEMENTATION
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MODULE 188 - SORTED BY REFERENCE NUMBER
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DOCUMENT/FEATURE =====	SECTION =====	DESIGN LAST =====	DESIGN FIRST =====	CONST LAST =====	CONST FIRST =====	REMARKS =====	REF NO =====
CLASS A ROOF DECK ASSEMBLIES, AS LISTED BY UL, ARE USED ON SAFETY-RELATED STRUCTURES		X2AG04-3.0, 3.1, REV. 7, 5-11-82	X2AG04-3.0, 3.1, REV. 1, 6-5-78				3702.00
IEEE 383-1974		SEE REMARKS				FOR DESIGN IMPLEMENTATIO N, REFER TO REF. NO. 3681	3704.00
THERMAL ANTISWEAT INSULATION, WITH ASTM E-84 RATINGS OF 25 FOR FLAME SPREAD, 50 FOR FUEL CONTRIBUTED AND 50 FOR SMOKE GENERATED		X4AP01-3.1, REV. 8, 9-6-85	X4AP01-3.1, REV. 0, 12-18-80				3705.00
UL RATING OF 25 FOR FLAME SPREAD, FUEL CONTRIBUTED AND SMOKE GENERATED (INSULATION FOR DUCTWORK ABOVE THE CEILING OF THE CONTROL ROOM)		X4AP01-2.0, REV. 8, 9-6-85	X4AP01-2.0, REV. 0, 12-18-80				3706.00
PREACTION SPRINKLER SYSTEMS INSTALLED IN ESF ROOMS		X4AX03-ATTACHMEN T 1, REV. 8, 11-11-85	X4AX03-ATTACHMEN T 1, REV. 0, 4-27-82				3707.00

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
INSIDE CONTAINMENT, RCP AND ELECTRICAL CABLES ARE PROTECTED BY FIXED REMOTE MANUAL PREACTION SPRINKLER SYSTEMS		X4AX03-ATTACHMEN T 1, REV. B, 11-11-85	X4AX01-ATTACHMEN T 1, REV. O, 4-27-82				3708.00
BTF CMEB 9.5-1 (RCP AND ELEC. CABLES IN CONTAINMENT ARE PROTECTED BY FIXED REMOTE - MANUAL PREACTION SPRINKLER SYSTEMS)		SEE REMARKS				FOR DESIGN IMPLEMENTATIO N, REFER TO REF. NO. 3708	3709.C0
FIRE DETECTION SIGNALS FROM TWO DETECTORS ARE REQUIRED BEFORE AN ACTUATION SIGNAL TO AUTO. HALON 1301 SUPPRESSION SYSTEM		DC-1813-3.3.F, REV. 3, 4-18-83	DC-1813-3.3.F, REV. 3, 4-18-83				3817.00
EIGHT HOUR SEALED BEAM FIXTURES (EMERGENCY LIGHTING)		DC-1808-3.0.C.3, REV. 3, 3-5-81	DC-1808-3.0.C.3, REV. 3, 3-5-81				3844.00
REQUIREMENTS OF SAFETY RELATED CAT. I STRUCTURES - EXTERIOR WALLS HAVE THREE HOUR FIRE RESISTANCE CONSTRUCTION		DC-1000-A-4.3.1. A, REV. 1, 12-4-85	DC-1000-A-4.3.1. A, REV. O, 6-19-79				3905.00

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER
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DOCUMENT/FEATURE =====	SECTION =====	DESIGN LAST =====	DESIGN FIRST =====	CONST LAST =====	CONST FIRST =====	REMARKS =====	REF NO =====
INTERIOR BEARING WALLS - THREE HOUR FIRE RESISTANCE CONSTRUCTION		DC-1000-A-4.3.1. B, REV. 1, 12-4-85	DC-1000-A-4.3.1. B, REV. 0, 6-19-79				3906.00
INTERIOR NONBEARING WALLS - THREE HOUR FIRE RESISTANCE CONSTRUCTION		DC-1000-A-4.3.1. C, REV. 1, 12-4-85	DC-1000-A-4.3.1. C, REV. 0, 6-19-79				3907.00
PRINCIPAL STRUCTURAL SUPPORTING MEMBERS OF SINGLE STORY BUILDING - TWO HOUR FIRE RESISTANCE CONSTRUCTION		DC-1000-A-4.3.1. D, REV. 1, 12-4-85	DC-1000-A-4.3.1. D, REV. 0, 6-19-79				3908.00
PRINCIPAL STRUCTURAL SUPPORTING MEMBERS OF MULTI-STORY BUILDINGS - THREE HOUR FIRE RESISTANCE CONSTRUCTION		DC-1000-A-4.3.1. E, REV. 1, 12-4-85	DC-1000-A-4.3.1. E, REV. 0, 6-19-79				3909.00
SECONDARY STRUCTURAL FLOOR SUPPORTING MEMBERS - TWO HOUR FIRE RESISTANCE CONSTRUCTION		DC-1000-A-4.3.1. F, REV. 1, 12-4-85	DC-1000-A-4.3.1. F, REV. 0, 6-19-79				3910.00
SECONDARY STRUCTURAL ROOF SUPPORTING MEMBERS - 1 1/2 HOUR FIRE RESISTANCE CONSTRUCTION		DC-1000-A-4.3.1. G, REV. 1, 12-4-85	DC-1000-A-4.3.1. G, REV. 0, 6-19-79				3911.00

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
INTERIOR STAIR AND ELEVATOR ENCLOSURE WALL - TWO HOUR FIRE RESISTANCE CONSTRUCTION		DC-1000-A-4.3.1. H, REV. 1, 12-4-85	DC-1000-A-4.3.1. H, REV. 0, 6-19-79				3912.00
FIRE PUMPS HYDROSTATICALLY FACTORY TESTED FOR TWICE MAXIMUM SHUT OFF PRESSURE		SEE REMARKS				SEE PROJECT RESPONSE TO RRF 18B-2	3913.00
FIRE PUMPS HYDROSTATICALLY FIELD TESTED FOR 150% OF RATED CAPACITY		X4AF14-5.3.2, REV. 3, 11-1-83	X4AF14-5.3.2, REV. 0, 11-1-73			IMPLEMENTATIO N PER NFPA-20 AS INVOKED IN REFERENCED DESIGN DOCUMENTS	3914.00
UNDERGROUND FIRE PROTECTION PIPING HYDROSTATICALLY TESTED AT 200 psig WITH A LEAKAGE OF 2 QT. PER HOUR PER 100 JOINTS		DC-2301-3.2.5.7, REV. 5, 8-14-79, X4AX03-7.0.0.3, REV. 8, 11-11-85	DC-2301-3.2.5.7, REV. 5, 8-14-79, X4AX03-7.0.0.3, REV. 0, 4-27-82			IMPLEMENTATIO N PER NFPA-24 AS INVOKED IN REFERENCED DESIGN DOCUMENTS	3915.00
WET STAND PIPE, WET SPRINKLER AND SPRAY SYSTEM PIPING HYDROSTATICALLY TESTED AT 200 psig WITH NO VISIBLE LEAKAGE		X4AX03-4.2.3.D, REV. 8, 11-11-85	X4AX03-4.2.3.D, REV. 0, 4-27-82			IMPLEMENTATIO N PER NFPA-13 AS INVOKED IN REFERENCED DESIGN DOCUMENTS	3916.00

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

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DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
HALON 1301 SYSTEM TESTED BY FULL SYSTEM DISCHARGE		DC-2304-2.0, REV. 2, 4-28-83, X4AX03-7.0.F, REV. 8, 11-11-85	DC-2304-2.0, REV. 0, 1-19-78, X4AX03-7.0.F, REV. 0, 4-27-82			IMPLEMENTATIO N PER NFPA-12A, APPENDIX A AS INVOKED IN REFERENCED DESIGN DOCUMENTS	3917.00
FIRE RATINGS OF BARRIERS, DOORS, DAMPERS AND PENETRATION SEALS OF EACH FIRE AREA		DC-1000-A-4.3, REV. 1, 12-4-85, X1AG11-3.2, REV. 5, 10-23-85, X1AH01-4.1.1.F, REV. 3, 7-25-85, X4AJ21-3.0, REV. 7, 10-21-85	DC-1000-A-4.3, REV. 0, 6-19-79, X1AG11-3.2, REV. 0, 11-13-81, X1AH01-4.1.1.F, REV. 0, 1-29-81, X4AJ21-3.0, REV. 0, 10-6-80				3922.00
FIRE PROTECTION SYSTEMS AND EQUIPMENT PROVIDED FOR EACH FIRE ZONE		SEE REMARKS				FIRE PROTECTION SYSTEMS AND EQUIPMENTS IN THE FIRE AREAS ZONE WILL BE VERIFIED AS DESCRIBED IN WALKDOWN PLAN WP-3	3924.00

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

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DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
BTP CMEB 9.5-1, POSITION C.1.b, FIRE HAZARDS ANALYSIS		SEE REMARKS				SEE FSAR APP. 9A	3926.00
BTP CMEB 9.5-1, POSITION C.1.c, FIRE SUPPRESSION SYSTEM DESIGN BASIS		DC-2301-2.0, 3.2, REV. 5, 8-14-79, DC-2303-2.0, 3.1, REV. 2, 4-28-83, DC-1813-3.1, REV. 3, 4-18-83, DC-1002-3.3.2, REV. 2, 8-14-79	DC-2301-2.0, REV. 3, 4-27-77, DC-2303-2.0, REV. 1, 8-14-79, DC-1813-3.1, REV. 3, 4-18-83, DC-1002-3.3.2, REV. 2, 8-14-79				3927.00
BTP CMEB 9.5-1, POSITION C.1.d, ALTERNATE OR DEDICATED SHUTDOWN		SEE REMARKS				FOR DESIGN IMPLEMENTATIO N, REFER TO REF. NO. 3935	3928.00
BTP CMEB 9.5-1, POSITION C.4, QUALITY ASSURANCE PROGRAM		VOGTLE PROJECT POLICIES AND PROCEDURES MANUAL, SECTION C.7.5, REV. 1, 1-2-85	VOGTLE PROJECT POLICIES AND PROCEDURES MANUAL, SECTION C.7.5, REV. 1, 1-2-85				3932.00
BTP CMEB 9.5-1 POSITION C.5.a, GENERAL PLANT GUIDELINES BUILDING DESIGN,		DC-1000-A-3.1.1, 3.3.1, 4.3, 11.0, REV. 1, 12-4-85, DC-1002-3.2, REV. 2, 8-14-79, DC-1801-3.2.H, REV. 3, 7-19-83, DC-1805-3.0.C.2, REV. 5, 8-6-85, DC-1810-3.1.2, REV. 7, 9-24-85, DC-1214-3.1, REV. 4, 12-10-82, DC-1225-3.1, REV. 1, 2-11-82	DC-1000-A-3.1.1, 3.3.1, 4.3, 11.0, REV. 0, 6-19-79, DC-1002-3.2, REV. 0, 12-20-77, DC-1801-3.2.H, REV. 0, 6-24-77, DC-1805-3.0.C.2, REV. 2, 9-27-77, DC-1810-3.1.2, REV. 6, 10-3-83, DC-1214-3.1, REV. 0, 4-1-74, DC-1225-3.1, REV. 0, 4-3-78			IMPLEMENTATIO N PER NFPA 101 AS INVOKED IN REFERENCED DESIGN DOCUMENTS	3933.01

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
BTP CMEB 9.5-1 POSITION C.5.a, GENERAL PLANT GUIDELINES BUILDING DESIGN		DMCN-1225-3, 3-18-85, DC-1215-3.2, REV. 4, 10-5-82, DMCN-1215-3, 5-24-84, DC-1003-3.2.J, REV. 2, 6-29-83, X4AJ21-3.0, 4.0, REV. 7, 10-21-85, X1AG11-2.0, 3.2, REV. 5, 10-23-85, X1AN02-4.2, REV. 1, 10-12-84, X1AN03-2.0, REV. 6, 1-25-85	DC-1215-3.2, REV. 2, 1-3-78, DC-1003-3.2.J, REV. 1, 5-11-78, X4AJ21-3.0, 4.0, REV. 0, 10-6-80, X1AG11-2.0, 3.2, REV. 0, 11-13-81, X1AN02-4.2, REV. 0, 11-19-79, X1AN03-2.0, REV. 0, 3-18-80				3933.02
BTP CMEB 9.5-1 POSITION C.5.a, GENERAL PLANT GUIDELINES BUILDING DESIGN		X2AG04-3.0, REV. 7, 5-11-82	X2AG04-3.0, REV. 1, 6-5-78				3933.03
BTP CMEB 9.5-1 POSITION C.5.b, GENERAL PLANT GUIDELINES SAFE SHUTDOWN CAPABILITY		DC-1624-3.1.J, REV. 2, 6-13-83, DC-1810-3.1.2, REV. 7, 9-24-85, DC-1208-3.1.G, REV. 1, 3-9-83, DC-1205-3.2.C & D, REV. 2, 3-17-83, DC-1203-3.1.C, REV. 6, 11-2-83, DC-1202-A-3.1.C, REV. 5, 4-13-83, DC-1821-3.1.C, REV. 5, 5-2-83, DC-1531-3.1, REV. 3, 8-9-83	DC-1624-3.1.J, REV. 2, 6-13-83, DC-1810-3.1.2, REV. 6, 10-3-83, DC-1208-3.1.G, REV. 0, 5-9-78, DC-1205-3.2.C&D, REV. 1, 3-29-79, DC-1203-3.1.D, REV. 4, 12-6-77, DC-1202-A-3.4.B, REV. 0, 6-26-73, DC-1821-3.1.C, REV. 3, 8-25-77, DC-1531-3.1, REV. 2, 10-23-78				3934.01

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
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BTP CMEB 9.5-1 POSITION C.5.b, GENERAL PLANT GUIDELINES SAFE SHUTDOWN CAPABILITY		DC-1532-3.1, REV. 3, 8-1-83, DC-1002-3.3.2, REV. 2, 8-14-79, PC-1620-3.1, REV. 2, 3-29-83, DC-1501-3.1, REV. 5, 12-11-78	DC-1532-3.1, REV. 2, 10-5-78, DC-1002-3.3.2, REV. 1, 11-21-78, DC-1620-3.1, REV. 0, 7-1-77, DC-1501-3.1, REV. 4, 1-12-78				3934.02
BTP CMEB 9.5-1 POSITION C.5.c, GENERAL PLANT GUIDELINES ALTERNATIVE OR DEDICATED SHUTDOWN CAPABILITY		DC-1624-3.0, 3.1, REV. 2, 6-18-83, DC-1002-3.3, REV. 2, 8-14-79, DC-1205-3.1, REV. 2, 3-17-83, DC-1531-3.1, REV. 3, 8-9-83, DC-1620-3.1, REV. 2, 3-29-83, DC-1821-3.1, REV. 5, 5-2-83, DC-1208-3.1, REV. 1, 3-9-83, DC-1203-3.1, REV. 6, 11-2-83	DC-1624-3.0, 3.1, REV. 1, 9-16-81, DC-1002-3.3, REV. 2, 8-14-79, DC-1205-3.2, REV. 1, 3-29-79, DC-1531-3.1, REV. 2, 10-5-78, DC-1620-3.1, REV. 0, 7-1-77, DC-1821-3.1, REV. 3, 8-25-77, DC-1208-3.1, REV. 0, 5-9-78, DC-1203-3.1, REV. 4, 12-6-77			PROCEDURES FOR REPAIR AND MAINTAINING SPARE PARTS TO REPAIR SAFE SHUTDOWN EQUIPMENTS SUBJECTED TO FIRE DAMAGE - COVERED IN MODULE 7	3935.01

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
BTP CMEB 9.5-1 POSITION C.5.c, GENERAL PLANT GUIDELINES ALTERNATIVE OR DEDICATED SHUTDOWN CAPABILITY		DC-1204-3.1, REV. 2, 2-11-83	DC-1204-3.1, REV. 1, 3-30-79			PROCEDURES FOR REPAIR AND MAINTAINING SPARE PARTS TO REPAIR SAFE SHUTDOWN EQUIPMENTS SUBJECTED TO FIRE DAMAGE - COVERED IN MODULE 7	3935.02
BTP CMEB 9.5 POSITION C.5.d, GENERAL PLANT GUIDELINES CONTROL OF COMBUSTIBLES		DC-2403-2.0.E, REV. 3, 5-2-79, DC-2406-3.2, REV. 2, 10-5-82, DC-1325-4.0, REV. 1, 4-29-82, DC-1809-3.2.6, REV. 5, 9-20-85, DC-1810-3.1.1.H, REV. 7, 9-24-85, DC-2402-3.0.B, REV. 2, 4-29-82, DC-1902-3.3, REV. 1, 4-27-83, CC-1201-6.0.D, REV. 2, 3-9-84	DC-2403-2.0.E, REV. 2, 12-6-77, DC-2406-3.2, REV. 1, 4-4-77, DC-1325-4.0, REV. 1, 4-29-82, DC-1809-3.2.6, REV. 3, 2-6-78, DC-1810-3.1.1.H, REV. 6, 10-3-83, DC-2402-3.0.B, REV. 1, 2-11-77, DC-1902-3.3, REV. 0, 7-21-78, DC-1201-6.0.D, REV. 1, 4-21-83				3936.00

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER
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DOCUMENT/FEATURE =====	SECTION =====	DESIGN LAST =====	DESIGN FIRST =====	CONST LAST =====	CONST FIRST =====	REMARKS =====	REF NO =====
BTP CMRB 9.5-1 POSITION C.5.e, GENERAL PLANT GUIDELINES ELEC. CABLE CONSTRUCTION, CABLE TRAYS AND CABLE PENETRATIONS		DC-1810-3.1, 3.2, REV. 7, 9-24-85, DC-1809-2.0, 3.1.1, 3.1.2, 3.1.3, REV. 5, 9-20-85, X3AJ01-2.2, REV. 5, 5-9-85, X3AJ02-2.2, REV. 12, 8-16-85, X3AJ03-2.0, REV. 9, 6-27-85, X3AH01-3.0, REV. 15, 2-25-85, X3AH02-3.0, REV. 24, 10-15-85	DC-1810-3.1, 3.2, REV. 6, 10-3-83, DC-1809-2.0, 3.1.1, 3.1.2, 3.1.3, REV. 3, 2-6-78, X3AJ01-2.2, REV. 0, 2-23-79, X3AJ02-2.2, REV. 0, 2-14-79, X3AJ03-2.0, REV. 0, 5-9-78, X3AH01-3.0, REV. 2, 2-7-79, X3AH02-3.0, REV. 2, 8-18-78				3937.01
BTP CMRB 9.5-1 POSITION C.5.e, GENERAL PLANT GUIDELINES ELEC. CABLE CONSTRUCTION, CABLE TRAYS AND CABLE PENETRATIONS		X3AQ01-4.5.C, REV. 5, 10-21-85	X3AQ01-4.5.C, REV. 0, 1-11-80				3937.02
BTP CMRB 9.5-1 POSITION C.5.f, GENERAL PLANT GUIDELINES VENTILATION		DC-1531-3.1, 3.2, REV. 3, 8-9-83, DC-1532-3.1, 3.3, REV. 3, 8-1-83, DC-1533-3.3, REV. 2, 8-5-83, DC-1535-3.2, REV. 2, 8-2-83, DC-1539-3.2, 3.3, REV. 2, 8-9-83, DMCN-1539-1, 5-2-85, DC-1540-3.2, 3.3, REV. 2, 6-3-83, DC-1541-3.2, REV. 1, 9-29-78	DC-1531-3.1, 3.2, REV. 1, 8-15-77, DC-1532-3.1, 3.3, REV. 1, 9-14-77, DC-1533-3.3, REV. 2, 8-5-83, DC-1535-3.2, REV. 1, 10-13-78, DC-1539-3.2, 3.3, REV. 1, 9-29-78, DC-1540-3.2, 3.3, REV. 1, 9-29-78, DC-1541-3.2, REV. 0, 8-22-77				3938.01

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
BTP CMRB 9.5-1 POSITION C.S.f. GENERAL PLANT GUIDELINES VENTILATION		DC-1542-3.1, REV. 1, 9-29-78, DC-1546-3.2, REV. 0, 6-21-83, DC-1547-3.2, REV. 0, 6-10-83, DC-1548-3.2, REV. 0, 12-27-82, DC-1553-3.2, REV. 2, 3-2-83, DC-1561-3.1, REV. 2, 8-2-83, DC-1562-3.1, REV. 1, 8-10-83, DC-1566-3.2, REV. 2, 8-2-83	DC-1542-3.1, REV. 1, 9-29-78, DC-1546-3.2, REV. 0, 6-21-83, DC-1547-3.2, REV. 0, 6-10-83, DC-1548-3.2, REV. 0, 12-27-82, DC-1553-3.2, REV. 1, 9-29-78, DC-1561-3.1, REV. 1, 11-22-77, DC-1562-3.1, REV. 1, 8-10-83, DC-1566-3.2, REV. 1, 12-8-78				3938.02
BTP CMRB 9.5-1 POSITION C.S.f. GENERAL PLANT GUIDELINES VENTILATION		DC-1575-3.2, REV. 1, 8-5-83, DC-2301-3.2.G.5, REV. 5, 8-14-79, DMCN-2301-5, 2-27-84, DC-1000-A-4.3, REV. 1, 12-4-85, X4AX03-4.3.9, 2.1.1, REV. 8, 11-11-85, X1AH01-4.1.G, REV. 3, 7-25-85	DC-1575-3.2, REV. 0, 2-11-77, DC-2301-3.2.G.4, REV. 3, 4-27-77, DC-1000-A-4.3, REV. 0, 6-19-79, X4AX03-4.3.9, 2.1.1, REV. 0, 4-27-82, X1AH01-4.1.G, REV. 0, 1-29-81				3938.03

IMPLEMENTATION
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MODULE 185 - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
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BTP CMRB 9.5-1 POSITION C.5.g, GENERAL PLANT GUIDELINES LIGHTING AND COMMUNICATION		DC-1808-3.0.C, 4.0.C, 3.2.A, REV. 4, 11-7-85, DC-1706-3.2.B, REV. 3, 6-3-83, DC-1701-3.2, REV. 4, 1-18-83	DC-1808-3.0.C, 4.0.C, 3.2.A, REV. 3, 3-5-81, DC-1706-3.2.B, REV. 1, 1-19-78, DC-1701-3.2, REV. 2, 1-19-78				3939.00
BTP CMRB 9.5-1 POSITION C.6.a, FIRE DETECTION AND SUPPRESSION FIRE DETECTION		DC-1813-3.1.5, 2.0, 3.2, 3.3, REV. 3, 4-18-83, DMCN-1813-1, 11-13-84, X3AQ01, REV. 5, 10-21-85	DC-1813-3.1.8, 2.0, 3.2, 3.3, REV. 1, 5-9-77, X3AQ01, REV. 0, 1-11-80				3940.00
BTP CMRB 9.5-1 POSITION C.6.b, FIRE DETECTION AND SUPPRESSION FIRE PROTECTION WATER SUPPLY SYSTEMS		DC-2301-3.2.4, 3.2, 3.2.5.7, 3.2.5.8, REV. 5, 8-14-79, DMCN-2301-7, 4-16-84, DC-1000-C-4.4.3, REV. 3, 9-30-83, DMCN-1000-C-7, 8-30-85, X2AC04, REV. 4, 3-4-77, X4AR36, REV. 5, 5-1-84, X4AX02, REV. 10, 5-17-85, X4AF14-4.1, REV. 3, 11-1-83	DC-2301-3.2.4, 3.2, 3.2.5.7, 3.2.5.8, REV. 4, 12-19-77, DC-1000-C-4.4.3, REV. 1, 11-22-77, X2AC04, REV. 0, 4-30-74, X4AR36, REV. 0, 5-13-82, X4AX02, REV. 0, 5-5-81, X4AF14-4.1, REV. 0, 11-1-73				3941.00

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
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BTP CMEB 9.5-1 POSITION C.6.c, FIRE DETECTION AND SUPPRESSION WATER SPRINKLER AND HOSE STAND PIPE SYSTEMS		DC-2301-3.2.4, 3.2.G, 2.0, REV. 5, 8-14-79, DC-2303-3.3, REV. 2, 4-28-83, DC-1225-2.2, REV. 1, 2-11-82, X4AX02, REV. 10, 5-17-85, X4AX03-2.1, 2.2, 3.2, 4.0, ATTACHMENT 1, REV. 8, 11-11-85	DC-2301-3.2.4, 3.2.G, 2.0, REV. 4, 12-19-77, DC-2303-3.3, REV. 0, 7-20-78, DC-1225-2.2, REV. 0, 4-3-78, X4AX02, REV. 0, 5-5-81, X4AX03-2.1, 2.2, 3.2, 4.0, ATTACHMENT 1, REV. 0, 4-27-82				3942.00
BTP CMEB 9.5-1 POSITION C.6.d, FIRE DETECTION AND SUPPRESSION HALON SUPPRESSION SYSTEMS		DC-2304-2.0, 3.3, REV. 2, 4-28-83, X4AX03-4.3, 4.5, 4.7.1 AND ATTACHMENT 2, REV. 8, 11-11-85	DC-2304-2.0, 3.3, REV. 1, 8-14-79, X4AX03-4.3, 4.5, 4.7.1 AND ATTACHMENT 2, REV. 0, 4-27-82				3943.00
BTP CMEB 9.5-1 POSITION C.6.e, FIRE DETECTION AND SUPPRESSION CARBON DIOXIDE SUPPRESSION SYSTEMS		N/A	N/A			NO CO2 SUPPRESSION IN VEGF	3944.00

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER
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DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
BTP CMER 9.5-1 POSITION C.6.f, FIRE DETECTION AND SUPPRESSION PORTABLE EXTINGUISHERS		X02, ITEM 8, 7v. 10, -17-85, SEE MARKS	X4AX02, ITEM 8, REV. 0, 5-5-81			FOR PORTABLE FIRE EXTINGUISHERS LOCATIONS AND INSTALLATIONS PER NFPA 10, REFER TO FIRE PROTECTION DRAWINGS	3945.00
BTP CMER 9.5-1 POSITION C.7.a, GUIDELINES FOR SPECIFIC PLANT AREAS PRIMARY AND SECONDARY CONTAINMENT		X4AX03-4.2.1, ATTACH. 1, PGS 1-102 TO 1-109, REV. 8, 11-11-85, DC-1505-2.0.J, REV. 5, 7-26-83, DC-1506-2.0.M, REV. 5, 8-2-83, DC-1810-3.1.2, REV. 7, 9-24-85, DC-1624-3.1.J, REV. 2, 6-13-83, DC-1813-3.3.H, REV. 3, 4-18-83, DC-2303-3.3, REV. 3, 4-28-83	X4AX03-4.2.1, ATTACH. 1, PGS 1-102 TO 1-109, REV. 0, 4-27-82, DC-1505-2.0.J, REV. 4, 10-23-78, DC-1506-2.0.M, REV. 4, 9-29-78, DC-1810-3.1.2, REV. 6, 10-3-83, DC-1624-3.1.J, REV. 2, 6-13-83, DC-1813-3.3.H, REV. 1, 5-9-77, DC-2303-3.3, REV. 0, 7-20-78			REFURRING AND MAINTENANCE OPERATIONS MANAGEMENT PROCEDURES AND CONTROLS TO ENSURE ADEQUATE F.P. FOR TRANSIENT FIRE LOADS - COVERED IN MODULE 7	3946.01

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
BTP CMRB 9.5-1 POSITION C.7.a, GUIDELINES FOR SPECIFIC PLANT AREAS PRIMARY AND SECONDARY CONTAINMENT		DMCN-2303-1, 7-12-83, DC-1809-3.1.1, 3.1.2, 3.1.3, REV. 5, 9-20-85, DC-1201-6.0.D, REV. 2, 3-9-84	DC-1809-3.1.1, 3.1.2, 3.1.3, REV. 3, 2-6-78, DC-1201-6.0.D, REV. 1, 4-21-83				3946.02
BTP CMRB 9.5-1 POSITION C.7.b, GUIDELINES FOR SPECIFIC PLANT AREAS CONTROL ROOM AREAS		DC-1000-A-4.3, REV. 1, 12-4-85, X4AX03-ATT. 1, PG 1-55 THRU 1-95, ATT. 2, PG 2-2 THRU 2-8, ATT. 3, TABLE A-2, B-1, REV. 8, 11-11-85, DC-1531-3.1, REV. 3, 8-9-83, DC-1810-3.1.2.C, REV. 7, 9-24-85	DC-1000-A-4.3, REV. 0, 6-19-79, X4AX03-ATT. 1, PGS 1-55 THRU 1-95 AND ATT. 2, PGS 2-2 THRU 2-8, ATT. 3, TABLE A-2, B-1, REV. 0, 4-27-82, DC-1531-3.1, REV. 1, 8-15-77, DC-1810-3.1.2.C, REV. 6, 10-3-83			FOR THE LOCATION OF HOSE STATIONS AND FIRE EXTINGUISHERS , SEE FIRE PROTECTION DRAWINGS OF CONTROL BUILDING	3947.00
BTP CMRB 9.5-1 POSITION C.7.c, GUIDELINES FOR SPECIFIC PLANT AREAS CABLE SPREADING ROOMS		X4AX03-ATT. 1, PG 1-69, 1-70, 1-82, REV. 8, 11-11-85, DC-2301-3.2.G.3, REV. 5, 8-14-79, DC-1809-3.1.D, 3.1.2, 3.1.3, REV. 5, 9-20-85, DC-1810-3.1.2.A & C, REV. 7, 9-24-85, DC-1225-3.1, REV. 1, 3-11-82, DMCN-1225-3, 3-18-85, DC-1539-3.2, REV. 2, 8-9-83	X4AX03-ATT. 1, PG 1-69, 1-70, 1-82, REV. 0, 4-27-82, DC-2301-3.2.G.3, REV. 5, 8-14-79, DC-1809-3.1.D, 3.1.2, 3.1.3, REV. 3, 2-6-78, DC-1810-3.1.2.A & C, REV. 6, 10-3-83, DC-1225-3.1, REV. 0, 4-3-78, DC-1539-3.2, REV. 1, 9-24-78			SEE REMARKS ABOVE FOR HOSE STATIONS AND FIRE EXTINGUISHERS	3948.00

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
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BTP CMEB 9.5-1 POSITION C.7.d, GUIDELINES FOR SPECIFIC PLANT AREAS PLANT COMPUTER ROOMS		DC-1618-3.3.A, REV. 2, 3-9-83, X4AX03, ATTACHMENT 2, PAGE 2-4, REV. 8, 11-11-85	DC-1618-1.3.A, REV. 1, 9-29-78, X4AX03, ATTACHMENT 2, PAGE 2-4, REV. 0, 4-27-82				3949.00
BTP CMEB 9.5-1 POSITION C.7.e, GUIDELINES FOR SPECIFIC PLANT AREAS SWITCHGEAR ROOMS		DC-1805-3.0.B.2, 3.0.E, REV. 5, 8-6-85, DC-1804-3.1.G, 3.1.J, REV. 5, 10-2-85, DC-1532-3.3.E, REV. 3, 8-1-83	DC-1805-3.0.B.2, 3.0.E, REV. 3, 7-1-80, DC-1804-3.1.G, 3.1.J, REV. 4, 9-14-83, DC-1532-3.3.E, REV. 3, 8-1-83			FOR FIRE DETECTOR FIRE HOSE AND FIRE EXTINGUISHER LOCATION, REFER TO FIRE PROTECTION DRAWINGS OF SWITCHGEAR ROOMS	3950.00
BTP CMEB 9.5-1 POSITION C.7.f, GUIDELINES FOR SPECIFIC PLANT AREAS REMOTE SAFETY-RELATED PANELS		DC-1624-1.0, 3.1.J, REV. 2, 6-13-83	DC-1624-1.0, 3.1.J, REV. 2, 6-13-83			FOR FIRE HOSE AND FIRE EXTINGUISHER LOCATIONS, SEE REMARKS ABOVE	3951.00
BTP CMEB 9.5-1 POSITION C.7.g, GUIDELINES FOR SPECIFIC PLANT AREAS SAFETY-RELATED BATTERY ROOMS		DC-1532-3.1.F, 3.2.B, 3.3, REV. 3, 3-1-83, DC-1000-A-4.3, REV. 1, 12-4-85	DC-1532-3.1.F, 3.2.B, 3.3, REV. 2, 10-5-78, DC-1000-A-4.3, REV. 0, 6-19-79			FOR FIRE EXTINGUISHERS AND FIRE HOSE LOCATION, SEE RESPECTIVE FIRE PROTECTION DRAWINGS	3952.00

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
BTP CMEB 9.5-1 POSITION C.7.h, GUIDELINES FOR SPECIFIC PLANT AREAS TURBINE BLDG.		DC-2110-3.2, 3.7, REV. 7, 9-21-83	DC-2110-3.2, 3.7, REV. 5, 3-10-78				3953.00
BTP CMEB 9.5-1 POSITION C.7.i, GUIDELINES FOR SPECIFIC PLANT AREAS DIESEL GENERATOR BLDG.		DC-2107-3.1, 4.0, REV. 2, 8-9-83, DC-2403-2.0.E, 3.1.F, REV. 3, 5-2-79, X4AX03 - ATTACHMENT 1, PAGE 1-100, 1-101, REV. 8, 11-11-85	DC-2107-3.1, 4.0, REV. 1, 5-26-78, DC-2403-2.0.E, 3.1.F, REV. 2, 12-6-77, X4AX03 - ATTACHMENT 1, PAGE 1-100, 1-101, REV. 0, 4-27-82			FOR PORTABLE FIRE EXTINGUISHERS AND FIRE HOSE LOCATIONS, SEE RESPECTIVE FIRE PROTECTION DRAWING IN DIESEL-GEN BLDG.	3954.00
BTP CMEB 9.5-1 POSITION C.7.j, GUIDELINES FOR SPECIFIC PLANT AREAS DIESEL FUEL STORAGE TANK		DC-2131-3.1.B, REV. 2, 7-19-83	DC-2131-3.1.B, REV. 1, 4-28-78				3955.00
BTP CMEB 9.5-1 POSITION C.7.k, GUIDELINES FOR SPECIFIC PLANT AREAS SAFETY-RELATED PUMPS		DC-2131-3.1, REV. 2, 7-19-83, DC-2159-3.1,4.0, REV. 2, 7-18-83, DC-1002-3.2.1, REV. 2, 8-14-79, DC-1214-3.2, REV. 4, 12-10-82, DC-1215-3.2.D & E, REV. 4, 10-5-82	DC-2131-3.1, REV. 1, 4-28-78, DC-2159-3.1,4.0, REV. 1, 5-9-78, DC-1002-3.2.1, REV. 0, 12-20-77, DC-1214-3.2, REV. 0, 4-1-74, DC-1215-3.2.D & E, REV. 2, 1-3-78			FOR HOSE STATIONS AND FIRE EXTINGUISHERS LOCATION, SEE CORRESPONDING FIRE AREA DRAWINGS	3956.01

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
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BTP CMEB 9.5-1 POSITION C.7.k, GUIDELINES FOR SPECIFIC PLANT AREAS SAFETY-RELATED PUMPS		X4AX03-APP. 1, PG. 1-11,13,14,15,17 ,18,19,23,24,25, 26,30,31,39,40,1 02,103,108,109,1 13,114,115, REV. 8, 11-11-85	X4AX03-APP. A, PG. 1-11,13,14,15,17 ,18,19,23,24,25, 26,30,31,39,40,1 02,103,108,109,1 13,114,115, REV. 0, 4-27-82			FOR HOSE STATIONS AND FIRE EXTINGUISHERS LOCATION, SEE CORRESPONDING FIRE AREA DRAWINGS	3956.02
BTP CMEB 9.5-1 POSITION C.7.1, GUIDELINES FOR SPECIFIC PLANT AREAS NEW FUEL AREAS		X3AQ01-ATTACHMEN T 5, PAGE 5-50, REV. 5, 10-21-85, SEE REMARKS	X3AQ01-ATTACHMEN T 5, PAGE 5-50, REV. 0, 1-11-80			FOR FIRE HOSE AND FIRE EXTINGUISHERS , SEE FIRE PROTECTION DRAWING OF THIS AREA. NEW FUEL STORAGE RACK DESIGN IS WEST. PROPRIETARY INFO. & VERIF. AT WEST. REF: LTR OP 10650 OF 2/24/86 - WEST. TO BPC	3957.00

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER
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DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
BTP CMEB 9.5-1 POSITION C.7.m, GUIDELINES FOR SPECIFIC PLANT AREAS SPENT FUEL AREAS		X3AQ01-ATTACHMEN T 5, PAGES 5-50, 51, 52, REV. 5, 10-21-85, SRP REMARKS	X3AQ01-ATTACHMEN T 5, PAGES 5-50, 51, 52, REV. 0, 1-11-80			FOR FIRE HOSE FIRE EXTINGUISHERS , SEE FIRE PROTECTION DRAWING OF THIS AREA	3958.00
BTP CMEB 9.5-1 POSITION C.7.n, GUIDELINES FOR SPECIFIC PLANT AREAS RADWASTE AND DECONTAMINATION AREAS		X4AX03-ATTACHMEN T 1, PAGES 1-117 THRU 121, REV. 8, 11-11-85, DC-1557-2.0.F, REV. 0, 11-18-82, DC-1550-2.0.H, REV. 0, 4-14-83	X4AX03-ATTACHMEN T 1, PAGES 1-117 THRU 121, REV. 0, 4-27-82, DC-1557-2.0.F, REV. 0, 11-18-82, DC-1550-2.0.H, REV. 0, 4-14-83				3959.00
BTP CMEB 9.5-1 POSITION C.7.o, GUIDELINES FOR SPECIFIC PLANT AREAS SAFETY-RELATED WATER TANKS		DC-2128-3.4, REV. 2, 8-19-83, DC-2129-3.3, REV. 4, 8-9-83, DC-2130-3.3, REV. 3, 7-27-83	DC-2128-3.4, REV. 1, 5-10-79, DC-2129-3.3, REV. 2, 3-29-79, DC-2130-3.3, REV. 1, 4-7-78			FOR LOCATION OF THESE TANKS AND FIRE HYDRANT LOCATIONS, SEE FIRE PROTECTION DRAWINGS OF OUTDOOR YARD	3960.00

IMPLEMENTATION
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MODULE 18B - SORTED BY REFERENCE NUMBER

DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
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BTP CMEB 9.5-1 POSITION C.7.p, GUIDELINES FOR SPECIFIC PLANT AREAS RECORD STORAGE AREA		DC-2519-3.2.6, REV. 1, 4-5-84, DC-2304-3.3.A, REV. 2, 4-28-83, X3AQ01-ATTACHMEN T 5, PAGE 5-33, REV. 5, 10-21-85, X4AX03-ATTACHMEN T 2, PAGE 2-7, REV. 8, 11-11-85	DC-2519-3.2.6, REV. 0, 4-21-80, DC-2304-3.3.A, REV. 1, 8-14-79, X3AQ01-ATTACHMEN T 5, PAGE 5-33, REV. 0, 1-11-80, X4AX03-ATTACHMEN T 2, PAGE 2-7, REV. 0, 4-27-82			FOR FIRE HOSE AND FIRE EXTINGUISHERS LOCATIONS, SEE FIRE PROTECTION DRAWINGS OF THESE AREAS	3961.00
BTP CMEB 9.5-1 POSITION C.7.q, GUIDELINES FOR SPECIFIC PLANT AREAS COOLING TOWERS		DC-2105-3.1, REV. 4, 7-27-83, SEE REMARKS	DC-2105-3.1, REV. 4, 7-27-83			PROPRIETARY INFO. FOR NATURAL DRAFT COOLING TOWERS. IMPLEMENTATIO N VERIFIED AT RESEARCH-COTR ELL	3962.00
BTP CMEB 9.5-1 POSITION C.7.r, GUIDELINES FOR SPECIFIC PLANT AREAS MISCELLNEOUS AREAS		DC-2515-2.0.K, REV. 0, 4-21-80, DC-2517-2.0.K, REV. 0, 4-21-80, DC-2518-2.0.K, REV. 1, 11-21-80, DC-2519-2.0.K, REV. 1, 4-5-84	DC-2515-2.0.K, REV. 0, 4-21-80, DC-2517-2.0.K, REV. 0, 4-21-80, DC-2518-2.0.K, REV. 1, 11-21-80, DC-2519-2.0.K, REV. 0, 4-21-80				3963.00

IMPLEMENTATION
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DOCUMENT/FEATURE =====	SECTION =====	DESIGN LAST =====	DESIGN FIRST =====	CONST LAST =====	CONST FIRST =====	REMARKS =====	REF NO =====
BTP CMEB 9.5-1 POSITION C.B.d, SPICAL PROTECTION GUIDELINES MATERIALS CONTAINING RADIOACTIVITY		DC-1903-3.3, 4.0, REV. 2, 2-7-83	DC-1903-3.3, 4.0, REV. 2, 2-7-83				3967.00
THREE HOUR RATED CURTAIN TYPE FIRE DAMPERS LOCATED IN FIRE BARRIERS AS NECESSARY		SEE REMARKS				FOR DESIGN IMPLEMENTATIO N, SEE REF. NO. 3458	3975.00
CABLE AND CABLE TRAY PENETRATIONS OF FIRE BARRIERS (VERT. AND HORIZ.) ARE SEALED (FIRE STOPS) TO GIVE PROTECTION AT LEAST EQUIVALENT TO THAT OF FIRE BARRIERS		SEE REMARKS				REFER TO REF. NO. 3670 FOR DESIGN IMPLEMENTATIO N	4092.00
SEALS BUILT IN COMPLIANCE WITH PROTOTYPE TESTED BY ASTM E-119		X1AG11-3.2.D, 2.0, REV. 5, 10-23-85	X1AG11-3.2.D, 2.0, REV. 5, 11-13-81				4143.00
NEPA 20, 1978		X4AF14-4.1, APPENDIX 9A-5.0, REV. 3, 11-1-83, DC-1804-3.1, 3.2, 3.3, REV. 5, 11-2-85, X3AC01-4.1, 4.3, 5.0, REV. 6, 4-13-84	X4AF14-4.1, APPENDIX 9A-5.0, REV. 0, 11-1-73, DC-1804-3.1, 3.2, 3.3, REV. 3, 5-25-79, X3AC01-4.1, 4.3, 5.0, REV. 0, 4-3-78				4144.00

IMPLEMENTATION
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DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
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NFPA 13		X4AX03-2.1, 4.2.1, ATTACHMENT 1, REV. 8, 11-11-85, SEE REMARKS	X4AX03-2.1, 4.2.1, ATTACHMENT 1, REV. 0, 4-27-82				4147.00
NFPA 15		X4AX03-2.1, 4.2.2.C, ATTACHMENT 1, REV. 8, 11-11-85, SEE REMARKS	X4AX03-2.1, 4.2.2.C, ATTACHMENT 1, REV. 0, 4-27-82			SEE REMARKS OF REF. NO. 4147	4148.00
NUREG-700		DC-1808-3.0.C, 3.2.C, 3.3.C, REV. 4, 11-7-85, DC-1619-2.0, REV. 2, 3-9-83	DC-1808-3.0.C, 3.2.C, 3.3.C, REV. 1, 11-10-77, DC-1619-2.0, REV. 2, 3-9-83				4271.00
NFPA 20-1978		SEE REMARKS				FOR DESIGN IMPLEMENTATIO N, SEE REF. NO. 4144	4292.00
ANSI C37.04		DC-1804-2.0, REV. 5, 10-2-85, X3AC01-2.1.C, REV. 6, 4-13-84	DC-1804-2.0, REV. 3, 5-25-79, X3AC01-2.1.C, REV. 0, 4-3-78				4293.00

IMPLEMENTATION
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DOCUMENT/FEATURE =====	SECTION =====	DESIGN LAST =====	DESIGN FIRST =====	CONST LAST =====	CONST FIRST =====	REMARKS =====	REF NO =====
ANSI C37.072		DC-1804-2.0, REV. 5, 10-2-85, X3AC01-2.1.C, REV. 6, 4-13-84	DC-1804-2.0, REV. 3, 5-25-79, X3AC01-2.1.C, REV. 0, 4-3-78				4294.00
ANSI N45.2-1971		X3AC01-2.1.C, REV. 6, 4-13-84, DC-1804-2.0, REV. 5, 10-2-85	X3AC01-2.1.C, REV. 0, 4-3-78, DC-1804-2.0, REV. 3, 5-25-79				4295.00
ANSI C37.06		DC-1804-2.0, REV. 5, 10-2-85, X3AC01-2.1.C, REV. 6, 4-13-84	DC-1804-2.0, REV. 3, 5-25-79, X3AC01-2.1.C, REV. 0, 4-3-78				4296.00
ANSI C37.09		DC-1804-2.0, REV. 5, 10-2-85, X3AC01-2.1.C, REV. 6, 4-13-84	DC-1804-2.0, REV. 3, 5-25-79, X3AC01-2.1.C, REV. 0, 4-3-78				4297.00
ANSI C37.20		DC-1804-2.0, REV. 5, 10-2-85, X3AC01-2.1.C, REV. 6, 4-13-84	DC-1804-2.0, REV. 3, 5-25-79, X3AC01-2.1.C, REV. 0, 4-3-78				4298.00
ANSI C37.90		DC-1804-2.0, REV. 5, 10-2-85, X3AC01-2.1.C, REV. 6, 4-13-84	DC-1804-2.0, REV. 3, 5-25-79, X3AC01-2.1.C, REV. 0, 4-3-78				4299.00

IMPLEMENTATION
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DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
ANSI C57.13		DC-1804-2.0, REV. 5, 10-2-85, X3AC01-2.1.C, REV. 6, 4-13-84	DC-1804-2.0, REV. 3, 5-25-79, X3AC01-2.1.C, REV. 0, 4-3-78				4300.00
ANSI N45.2.2-1972		X3AC01-2.1.C, REV. 6, 4-13-84	X3AC01-2.1.C, REV. 0, 4-3-78				4301.00
ANSI Z55.1		X3AC01-2.1.C, REV. 6, 4-13-84	X3AC01-2.1.C, REV. 0, 4-3-78				4302.00
IEEE 279		DC-1804-2.0, REV. 5, 10-2-85, X3AC01-2.1.C, REV. 6, 4-13-84	DC-1804-2.0, REV. 3, 5-25-79, X3AC01-2.1.C, REV. 0, 4-3-78				4303.00
IEEE 472		X3AC01-2.1.C, REV. 6, 4-13-84	X3AC01-2.1.C, REV. 0, 4-3-78				4304.00
IPCEA S-19-81		X3AC01-2.1.C, REV. 6, 4-13-84	X3AC01-2.1.C, REV. 0, 4-3-78				4305.00
NEMA SG5		DC-1825-2.0, REV. 2, 9-24-85, DC-1804-2.0, REV. 5, 10-2-85, X3AC01-2.1.C, REV. 6, 4-13-84, DC-1805-2.0, REV. 5, 8-6-85, DC-1808-2.0, REV. 4, 11-7-85	DC-1825-2.0, REV. 1, 9-13-83, DC-1804-2.0, REV. 3, 5-25-79, X3AC01-2.1.C, REV. 0, 4-3-78, DC-1805-2.0, REV. 0, 6-6-74, DC-1808-2.0, REV. 1, 11-10-77				4306.00

IMPLEMENTATION
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DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
UBC		X3AC01-2.1.C, REV. 6, 4-13-84	X3AC01-2.1.C, REV. 0, 4-3-78				4307.00
IEEE 383		X3AJ02-2.2, 5.3, REV. 12, 8-16-85, DC-1809-2.0, REV. 5, 9-20-85	X3AJ02-2.2, 5.3, REV. 1, 2-14-79, DC-1809-2.0, REV. 3, 2-6-78				4308.00
CLASS "A" SYSTEM DEFINED IN NFPA 72D-1975 AND CLASS I CIRCUITS DEFINED IN NFPA 70 EXCEPT AS NOTED		DC-1813-2.0, 4.0, REV. 3, 4-18-83, X3AQ01-4.1.G, 2.3.C, REV. 5, 10-21-85, DC-1810-3.1.2.A, 4, REV. 7, 9-24-85, DC-1809-2.0, REV. 5, 9-20-85, X3AJ02-2.2, 5.3, REV. 12, 8-16-85, X4AX03-4.4.2.F.7 , REV. 5, 11-11-85	DC-1813-2.0, 4.0, REV. 3, 4-18-83, X3AQ01-4.1.G, 2.3.C, REV. 0, 1-11-80, DC-1810-3.1.2.A, 4, REV. 6, 10-3-83, DC-1809-2.0, REV. 3, 2-6-78, X3AJ02-2.2, 5.3, REV. 1, 2-14-79, X4AX03-4.4.2.F.7 , REV. 0, 4-27-82				4309.00
FIRE RETARDANT PAINT IS USED ON PROTECTION RACK OR CABINET CONSTRUCTION TO RETARD FIRE OR HEAT PROPAGATION FROM RACK TO RACK		SEE REMARKS				PROPRIETARY INFO. IMPLEMENTATIO N VERIFIED AT WESTINGHOUSE (7300 SERIES CABINETS)	4591.00

IMPLEMENTATION
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DOCUMENT/FEATURE =====	SECTION =====	DESIGN LAST =====	DESIGN FIRST =====	CONST LAST =====	CONST FIRST =====	REMARKS =====	REF NO =====
ICRA PUB. P-46-426 OR P-54-440		DC-1809-2.0, REV. 5, 9-20-85, DC-1810-2.0, REV. 7, 9-24-85	DC-1809-2.0, REV. 3, 2-6-78, DC-1810-2.0, REV. 6, 10-3-83				4592.00
VERTICAL AND HORIZONTAL CABLE TRAY FLOOR OR WALL PENETRATIONS ARE SEALED TO GIVE PROTECTION EQUIVALENT TO OR GREATER THAN THE FIRE BARRIER RATING		DC-1809-3.1.1, REV. 5, 9-20-85	DC-1809-3.1.1, REV. 3, 2-6-78				4821.00
NEPA 80 AND 252		DRG. NO. AX1AH01-915-1, 11-1-85, DRG. NO. IX1AH01-916-1, 11-1-85, DRG. NO. AX1AH01-917-1, 11-1-85, DRG. NO. AX1AH01-918-1, 11-1-85, DRG. NO. AX1AH01-919-1, 11-1-85	DRG. NO. AX1AH01-915-1, 11-1-85, DRG. NO. IX1AH01-916-1, 11-1-85, DRG. NO. AX1AH01-917-1, 11-1-85, DRG. NO. AX1AH01-918-1, 11-1-85, DRG. NO. AX1AH01-919-1, 11-1-85				4944.00

IMPLEMENTATION
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DOCUMENT/FEATURE	SECTION	DESIGN LAST	DESIGN FIRST	CONST LAST	CONST FIRST	REMARKS	REF NO
ALL SPRINKLER SYSTEM PIPING IN CATEGORY I STRUCTURES IS DESIGNED FOR SSE LOADS		DC-2301-3.2.G.9, REV. 5, 8-14-79, X4AX03-4.6.B, REV. 8, 11-11-85	DC-2301-3.0.G.7, REV. 3, 4-27-77, X4AX03-4.6.B, REV. 0, 4-27-82				4945.00

4.0 FIRE PROTECTION TASK FORCE PROGRAM ASSESSMENT

4.1 ASSESSMENT DETAILS AND RESULTS

The review team which conducted the Fire Protection Task Force (FPTF) program assessment was composed of two Stone & Webster Engineering Corporation (SWEC) engineers experienced in the design, engineering, and construction of nuclear power plants, neither of whom had any previous association with the Vogtle Project.

The collective experience of the review team represents over 25 years experience in engineering and over 30 years experience in nuclear power plant design and operation. Both team members had recent experience with operating and near-term operating license (NTOL) plants directly related to their preparation for Nuclear Regulatory Commission (NRC) fire protection audits.

The review was conducted at Plant Vogtle and in SWEC's Boston office. On February 6, 1986, the review team visited Plant Vogtle to solidify with the Readiness Review organization the intended scope of this review. While at the site, the team familiarized themselves with the plant layout and the present status of construction completion as it directly affects the schedule for the Branch Technical Position (BTP) CMEB 9.5-1 implementation walkdowns.

Additionally, the team interviewed two of the FPTF members, the fire protection program manager and the Bechtel Project Field Engineering (PFE) member.

Discussions with these individuals focused on the organizational structure and division of responsibility of FPTF. A subsequent telephone conversation with the Bechtel Home Office task force member, focused on his function and responsibilities on the FPTF. The review team also used these documents:

- o Fire Protection Program Schedule U-1 and Common, Revision 5, April 4, 1985.
- o Fire Protection Design and Installation Verification Program Checklists (Draft).

The former, a comprehensive schedule delineating all anticipated work efforts and organizational responsibilities, has not been updated to reflect the current project milestone dates. It does not explain the scope of the efforts other than by activity name. The latter is a detailed checklist of design and installation attributes to be verified by the site walkdown teams. The walkdown procedure is subject to extensive modifications, which were annotated on the copy given to the review team.

Using these documents and the current Final Safety Analysis Report (FSAR) amendments, the review team reviewed FPTF objectives and planning to assess the adequacy of the scope of the effort.

4.2 CONCLUSIONS, RECOMMENDATIONS, AND PROJECT RESPONSES

From interviews with task force members, reviews of the draft documents, and a review of the FSAR documentation and commitments, it is apparent that the Project has given fire protection concerns significant forethought. This is particularly apparent from the detail present in chapters 8 and 9 of the FSAR as they relate to the fire hazards analyses, National Fire Protection Association (NFPA) Code, and BTP CMEB 9.5-1 compliance. Individuals interviewed were keenly aware of current industry practices relating to the implementation of BTP CMEB 9.5-1 and recognized the significant level of interdisciplinary and interorganizational cooperation required for satisfactory project completion.

The Readiness Review Team offers the following comments relative to the programmatic sufficiency of the FPTF organization and goals. These issues were selected by the review team as areas of concern because of their potential impact on the licensability of Plant Vogtle with regard to fire protection matters within the current overall plant schedule.

o Recommendation No. 1: Task Force Charter

Given the reliance of the Readiness Review Program upon the activities of the FPTF to ensure project readiness in all technical, procedural, and administrative matters as they relate to fire protection issues, Readiness Review Team members deem it prudent that a task force charter be issued to address at least the following points:

- Goals.
- Organizational makeup.
- Definition of intended products.
- Responsibilities for product generation/audit support.

Project Response: The charter documenting the FPTF goals, organizational makeup, definition of intended products, and responsibility for product generation and NRC audit support will be developed and issued by April 30, 1986.

o Recommendation No. 2: Task Force Schedule

As an integral part of its charter, the FPTF, as it represents the Vogtle Project, should commit to the maintenance of a definitive schedule and/or punchlist of activities keyed to responsible individuals as well as organizations. It is recommended that each line item of the schedule or punchlist be annotated with a traceable identification of the products; i.e., calculation number or procedure number.

Project Response: The fire protection program schedule for Unit 1 and common has been revised to reflect the current schedule and commitments associated with the Project's fire protection activities for which the FPTF has oversight. This schedule and a supporting detailed task list will be revised every 2 months thereafter.

o Recommendation No. 3: Safe Shutdown Analysis

Because of the highly interdisciplinary nature of this analysis among system engineers, electrical engineers, and, ultimately, the operating staff, it is considered imperative that an eventual effort of the FPTF be to direct the integration of the functional analysis of the system designers with the circuit analysis of the electrical engineers. This document would reference key assumptions and benchmark design documents forming the basis for the eventual long-term maintenance of the analysis.

Project Response: The Fire Event Safe Shutdown Evaluation report, per BTP CMEB 9.5-1, references key assumptions and benchmark design documents forming the basis for the safe shutdown analysis. This report is scheduled for completion by May 1986.

o Recommendation No. 4: Long-Term/Short-Term Design Input Maintenance

Due to the dynamic nature of the input variables to the Fire Hazards/Safe Shutdown Study, the FPTF should draft a project procedure to account for design changes issued subsequent to the benchmark design documents used in the initial study effort. The most sensitive area revolves around electrical circuit modifications.

Project Response: The short-term and long-term input maintenance will be documented in the project-developed design modification review procedures. This effort is scheduled for completion in May 1986.

o Recommendation No. 5: Plant Walkdown Program

A definitive project commitment must be made relative to the content and schedule of the walkdown verification. Discussions with FPTF members and review of the draft walkdown procedure have assured Readiness Review Team members that the program is heading in the right direction. This assurance notwithstanding, the Project must take a definitive posture relative to the content and schedule of the walkdown program.

Project Response: The revised fire protection verification program content will be issued with an updated implementation schedule by May 1, 1986.

o Recommendation No. 6: Comparison of FSAR Appendix 9B Design Requirements to Detail Requirements

From discussions with the FPTF members, it was determined that it was not their intention to review Appendix 9B of the FSAR to verify implementation of key design requirements. For example, section C.1.C.2 states that isolation of certain headers might be required under crack situations in order to maintain the viability of the primary or backup system. Also, section C.3.C does not explain how the air compressor is powered under loss-of-power conditions. These are examples of design requirements which, without special attention, can easily be overlooked. It is recommended that the FPTF assume the responsibility of reviewing Appendix 9B, identifying these design requirements, and verifying their implementation.

Project Response: A cross-reference between design documents and fire protection design parameters provided in Appendix 9B will be developed by July 1986. Any identified discrepancies will be resolved through the normal project activities.

Readiness Review Conclusion: The Readiness Review Team is satisfied with the definitive commitments made by the Project in their responses to the recommendations. Assuming the aggressive implementation of the responsibilities defined in section 2 of this module by individuals as qualified as those presently involved and the satisfactory resolution of the recommendations, the Readiness Review Team is confident that the Project will adequately address the implementation of its fire protection design and licensing commitments.

5.0 MODULE ASSESSMENT

5.1 OPEN CORRECTIVE ACTIONS

The open actions, completion dates, and organizations responsible for completing the actions are provided below:

- o Finding 18B-1

Action: Revise Final Safety Analysis Report (FSAR) section 3.1.1 and DC-1000-A to delete the year reference to the Nuclear Mutual Limited (NML) property loss prevention standard.

Completion Date: May 1, 1986.

Responsible Organization: Bechtel Home Office.

- o Finding 18B-2

Action: Revise the FSAR to be consistent with National Fire Protection Association (NFPA) 20-1976.

Completion Date: During 1986 FSAR update.

Responsible Organization: Bechtel Home Office.

- o Recommendation 1

Action: Develop charter for the Fire Protection Task Force (FPTF).

Completion Date: April 30, 1986.

Responsible Organization: FPTF.

- o Recommendation 3

Action: Complete Fire Event Safe Shutdown Evaluation report.

Completion Date: May 1986.

Responsible Organization: Bechtel Home Office.

o Recommendation 4

Action: Prepare project design modification review procedures.

Completion Date: May 1986.

Responsible Organization: Project management.

o Recommendation 5

Action: Update fire protection verification program implementation schedule and content.

Completion Date: May 1, 1986.

Responsible Organization: Bechtel Project Field Engineering.

o Recommendation 6

Action: Prepare cross-reference between design documents and fire protection design parameters.

Completion Date: July 1986.

Responsible Organization: Project Design Organization.

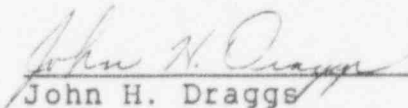
5.2 QUALITY ASSURANCE STATEMENT

The process for the development of Module 18B was monitored by the Readiness Review quality assurance (QA) staff for general adequacy.

Monitoring activities consisted of reviewing the findings and confirming the availability of records for Readiness Review personnel qualification and training. The findings were screened for reportability [10 CFR 21, 10 CFR 50.55(e)] in accordance with existing QA procedures. No findings were identified which required additional evaluation by the project for reportability.

An independent reverification was performed on a sampling basis under Readiness Review QA overview to determine the adequacy of the commitment/implementation matrixes.

Based upon these monitoring efforts, this module and the Readiness Review Team conclusions are judged to be acceptable.



John H. Draggs
Readiness Review Team
Quality Assurance Representative

5.3 RESUMES

JERAD H. BARNHART, Electrical Engineer, Team Member (FPTF Assessment)

Mr. Barnhart has been employed by Stone & Webster Engineering Corporation (SWEC) since 1970 and has 15 years of experience in the engineering and design of power plants. Currently, he is temporarily assigned to the Yankee Atomic Electrical Company at Framingham working on various projects including Appendix R, emergency lighting, and static exciter upgrade.

Prior to this assignment, he was a support electrical engineer for the Surry Nuclear Power Station Units 1 and 2, and North Anna Power Station Units 1 and 2. In addition, he was the lead electrical engineer responsible for directing design and engineering for the Surry and North Anna Nuclear Power Stations. Also, he has been assigned to a reconciliation study of the South Texas Project, design and engineering of nuclear power stations, and design and engineering additions to existing substations.

Education:

University of Massachusetts
B.S., Electrical Engineering

Northeastern University
M.S., Electrical Engineering

P.E., State of Massachusetts

MICHAEL R. SCANLON, Power Engineer, Team Leader (FPTF Assessment)

Mr. Scanlon has been employed by SWEC since 1974 and has 16 years of experience in the nuclear engineering field. As lead power engineer, he was responsible for all nuclear/mechanical engineering and design aspects related to the Millstone Nuclear Power Station. He has also been assigned to the Millstone Nuclear Power Station Project as an engineer in the Nuclear and Facilities Engineering Groups and was previously assigned as the principal facilities engineer there. Also, he worked as the lead power engineer at the Beaver Valley Power Station Project.

Prior to joining SWEC, Mr. Scanlon served in the U.S. Navy as a nuclear-qualified officer.

Education:

Holy Cross College
B.S., Physics

Naval Nuclear Power School and Prototype Training

MAHESH A. SUTHAR, Engineer, Team Member (Commitments)

Mr. Suthar began his employment with Bechtel Power Corporation in 1980 and has 6 years experience in designing pipe supports for nuclear power plants.

In 1982, he was assigned to the Grand Gulf Project, where he was involved with pressure drop calculations in piping systems and was responsible for designing fire protection systems such as deluge and sprinkler systems, Halon and CO₂ fire suppression systems, portable fire extinguishers, fire hydrants, fire hose stations, and fire and smoke detection systems. Also, he was responsible for the suppression pool makeup system and was involved in the fire protection analysis for heating, ventilation, and air-conditioning modifications in the control building. He also designed containment systems pipe supports for subjection to jet impingement due to loss-of-coolant accident conditions. Before coming to Bechtel Power Corporation, Mr. Suthar worked for companies engaged in process equipment and electromechanical design and taught several mechanical engineering-related courses.

Education:

Sardar Patel University
M.S., Mechanical Engineering

P.E., District of Columbia

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Vogtle Project

Date: April 3, 1986

Re: Plant Vogtle - Units 1 & 2
Readiness Review Module 18B
File: X7BD102 Log: SS-5529

From: O. Batum

To: W. C. Ramsey

Engineering has reviewed Module 18B, Fire Protection, for general accuracy and completeness. To the best of our knowledge and belief, the module is a complete and accurate representation of the Fire Protection, and the engineering process and commitments related thereto.

Ozen Batum
Deputy to Vice President
Project Engineering

xc: Project File

Fire Protection - Module 18B

Readiness Review Board Acceptance

The Readiness Review Board has been apprised of the scope and content of Module 18B, Fire Protection.

The Board has reviewed the assessment of the activities of the Fire Protection Task Force, both implemented and planned, and commitment verification, as well as corrective actions, both proposed and implemented, by the Vogtle Project. Based upon this review and based upon the collective experience and professional judgement of its members, the Readiness Review Board is of the opinion that the corrective actions proposed are acceptable, and that the activities of the Fire Protection Task Force at Plant Vogtle are sound. The Fire Protection Task Force activities, when completed, will ensure compliance with commitments set forth in the FSAR.

APPROVED: 

Doug Dutton
Chairman, Readiness Review Board
Vogtle Electric Generating Plant

DATE: 4-17-86