TU ELECTRIC

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June 1, 1988

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U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NOS. 50-445 AND 50-446
EVALUATION OF CHANGES TO FINAL SAFETY ANALYSIS REPORT

REF: Letter from Stewart D. Ebneter (NRC) to William G. Counsil (TU Electric) dated May 17, 1988

Gentlemen:

In the referenced letter, the NRC Staff informed TU Electric that it was preparing to resume active review of the amendments to the Comanche Peak Steam Electric Station Final Safety Analysis Report (FSAR). To assist the NRC Staff in planning and scheduling its review, the Staff requested that TU Electric identify portions of the FSAR which were previously evaluated and found acceptable in the Staff's Safety Evaluation Report (SER), or supplements thereto (SSERs), and for which the licensing basis was changed by FSAR amendments after Amendment 54. The response should identify and summarize the nature of the FSAR changes since SSER No. 12 was issued. In addition, the Staff requested that TU Electric evaluate each FSAR change with respect to the overall safety of the facility and broadly categorize each change based on the safety significance determined by the evaluation.

In response to the NRC Staff's request TU Electric has undertaken a comprehensive update and review of the FSAR and screening of the FSAR changes. As a result of this effort, TU Electric has prepared a detailed listing and description of every change to the FSAR that causes that document to differ from the version reviewed and accepted by the NRC Staff through SSER No. 12. Further, all changes have been placed in one of four groups based upon their relative significance.

To briefly describe the process, TU Electric has identified every change to the FSAR text made since Amendment 54 and characterized each as one of six types:

- Revision: Provides changes to the design criteria, the design basis, or to basic operational commitments.

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- Addition: Adds a description of an aspect of the CPSES design that was not previously described.

- Update: Provides new or expanded descriptions in areas which were designated "Later" in the past or which were expected to change with time (e.g. resumes).

- Correction: Provides changes to the technical description to match the as-built plant but does not change design criteria or bases. Includes changes made to conform a section of the FSAR to a previous change in another section of the FSAR.

- Clarification: Provides a clearer description in an area where the previous description could cause confusion or misinterpretation. No change in design or design criteria is intended.

- Editorial: Makes corrections because of previcus editorial errors or to conform the FSAR (e.g., index pages or cross-references) to reflect other changes.

Each change was then evaluated for relative significance. The evaluation was made by utilizing screening criteria specifically developed by TU Electric based upon the concepts embodied in 10 C.F.R 50.59 and 50.92(c). It is important to note that neither of these two regulations applies by their terms to the FSAR change review conducted by TU Electric. Nevertheless, they provided useful guidance in establishing screening criteria for the relative significance evaluation requested by the NRC Staff. The criteria were also intended to assure that all TU Electric reviewers from all the disciplines involved in the process applied a uniform screen. A description of the screening criteria is provided as Attachment 1 to this letter.

It should be emphasized that, prior to submittal of each FSAR change, TU Electric had reviewed the technical merits of such change and had concluded that all aspects of the change satisfied applicable NRC requirements. None of the changes has "safety significance" in the sense that it would create a potentially unsafe situation, i.e., a facility not in compliance with NRC requirements. The term "relative significance" as used in this review denotes only that the FSAR changes -- all of which are acceptable from a safety standpoint -- have been classified into groups, in increasing order of possible importance of the change to the NRC Staff. The classification, which involved a number of subjective considerations, is intended only for purposes of aiding the Staff in planning and scheduling its review.

As can be seen from the criteria, the screening process resulted in each change being classified, in TU Electric's opinion, in one of the following four groups:

Group 4: These changes are not substantive and do not affect the licensing basis previously evaluated and found acceptable by the NRC Staff.

Group 3: These changes are either clearly conservative with respect to the previous commitment or clearly fall outside the scope or intent of the NRC Staff's review under the Standard Review Plant (SRP) (NUREG-0800). Thus they do not affect the licensing basis previously evaluated and found acceptable by the NRC Staff.

Group 2: These changes substantively modify descriptions and analyses in the FSAR but, in view of the screening criteria applied, are less likely to require detailed NRC Staff review than the changes in Group 1.

Group 1: These changes substantively modify descriptions and analyses in the FSAR, and for the NRC Staff's planning and scheduling purposes, are likely to require detailed NRC Staff review. These have been fully addressed by TU Electric to demonstrate compliance with applicable NRC requirements.

The results of this effort are provided in Attachment 2. In preparing the data, we have identified all changes to the CPSES FSAR from Amendment 55 through Amendment 68 inclusive, and sorted the changes by applicable SER section. The changes within each SER section are listed in accordance with TU Electric's "significance" group . Finally, at the end of each Chapter, two tables are provided to facilitate the Staff's review. The first table indicates the TU Electric evaluation of the relative significance of the changes as they affect specific SER sections. The second table lists repetitive entries which require only a single review.

Descriptions for Amendment 69 and 70 were provided in letters dated March 18, 1988 (TXX-88248) and April 22, 1988 (TXX-88359), respectively. These descriptions did not include the significance evaluation (i.e., the group classification). Revised descriptions which include the group classifications for Amendment 69 and 70 will be submitted by June 20, 1988. A description for FSAR Amendment 71, including the results of the significance evaluation, was submitted on May 27, 1988 (TXX-88445).

The referenced letter indicates that the NRC intends to review these FSAR amendments against the licensing criteria in the current version (May 1988) of the Standard Review Plan (SRP), NUREG-0800. As noted in your letter, the CPSES OL application was tendered prior to the issuance of the SRP. Per 10 CFR 50.34(g), the SRP is not applicable to the CPSES OL application. However, we will be pleased to continue to cooperate in the NRC Staff's review in accordance with all pertinent regulations and procedures.

Please let us know if we can provide any further information to facilitate the Staff's planning and scheduling of its review.

Very truly yours,

W. G. Counsil

By: Roger D. Walker
R. D. Walker
Manager, Nuclear Licensing

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attachments

c - Mr. R. D. Martin, Region IV
Resident Inspectors, CPSES (3)

TU ELECTRIC
COMANCHE PEAK STEAM ELECTRIC STATION
FSAR AMENDMENT SCREENING CRITERIA/GUIDELINES

PURPOSE: These Screening Criteria are intended to respond to an NRC request to determine the relative significance of each change within recent FSAR amendments.

Section A below defines the Screening Criteria and provides guidelines for applying them. The results of the review against the criteria should be documented on an evaluation checklist. As a result of the review, all FSAR changes will be placed in one of four groups of differing significance. The four groups are characterized in Section B.

A. SCREENING CRITERIA

1. Identify the change in the FSAR.

2. a. Classify the FSAR change into one of the following six categories:

- o Revision: Provides changes to the design criteria, the design basis or to basic operational commitments.
- o Addition: Adds a description of an aspect of the CPSES design that was not previously described.
- o Correction: Provides changes to the technical description to match the as-built plant but does not change design criteria or bases. Includes changes made to conform a section of the FSAR to a previous change in another section of the FSAR.
- o Update: Provides new or expanded descriptions in areas which were designated "Later" in the past or which were expected to change with time (e.g. resumes).
- o Clarification: Provides a clearer description in an area where the previous description could cause confusion or misinterpretation. No change in design or design criteria is intended.
- o Editorial: Makes corrections to address previous editorial errors or to conform the FSAR (e.g., index pages or cross-references) to reflect other changes.

b. Clarifications/Editorial Changes: A change of either type is in Group 4. Skip to Section B below.

c. Revisions: Go on to Screening Criterion 3.

d. Additions/Corrections/Updates: Determine whether a change of any of these types is material. If not, the change is in Group 4. Skip to Section B below. If so, go on to Screening Criterion 3. The term "material" as used here means any new information that reasonably could be of interest to a Staff reviewer; i.e., could be relied upon or cited in the Staff's SER.

3. Determine whether the Revision or material Addition, Update or Correction is clearly conservative with respect to the previous FSAR commitment. If so, the change is in Group 3. Skip to Section B below. If not, go on to Screening Criterion 4.

- o An assessment of whether a change is "clearly conservative" may, in some instances, require use of qualitative engineering judgment. However, if reasonable engineers could differ in their assessment, a change should not be considered to be clearly conservative.
- o An addition of equipment, component, instrumentation, etc., should not necessarily be treated as being clearly conservative.
- o A correction made to conform a secondary (minor) description to the primary description which was made in a previous FSAR amendment, may be treated as group 3.
- o A revision or correction that reduces a commitment (regardless of ultimate acceptability under the regulations or regulatory guidance) should not be treated as clearly conservative.
- o A revision to reflect changes to codes and standards, or compliance with more recent editions, may not necessarily be treated as clearly conservative.

4. a. Determine whether the change affects anything specifically relied upon by the NRC Staff in the current SER. If it does, go on to Screening Criterion 5. If it does not, go to Screening Criterion 4.b, below.

- The purpose of this Screening Criterion, and 4.b below, is to identify information that in the judgment of the TU Electric screener, could be within the scope of Staff review. This Screening Criterion uses the current SER as a conservative indication that the information may tend to be relied upon by the Staff because it has in fact been included in the current SER. Note that if a change meets this test (i.e., it was addressed in the past in the SER), it does not necessarily mean that the change will affect the Staff's conclusions in the SER (outcome-determinative).

b. Determine whether the change addresses a matter or provides information that in the judgment of the screener is clearly outside the scope or intent of the NRC Staff's review under the Standard Review Plan (SRP) (NUREG-0800). If it does, the change is in Group 3. Skip to Section B below. If it does not (i.e, it is within the normal scope of review), go on to Screening Criterion 5.

- This Screening Criterion, as with 4.a above, is intended to identify (and eliminate from further screening by TU Electric) FSAR changes related to matters outside the normal scope of review. For purposes of this criterion, consider whether the change addresses either a subject area outside the scope of reasonable review (e.g., certain non-safety equipment with no credible impact on safety equipment) or a technical detail not normally addressed by the Staff in the SER.

- An assessment under this Screening Criterion may require, in some instances, the use of qualitative engineering judgment. However, if reasonable engineers could differ in their assessment, a change should not be considered to be "clearly" outside the scope of the SRP.

5. a. Determine whether the change involves any of the following:

- a significant increase in the probability of an accident previously evaluated;

- a significant increase in the consequences of an accident previously evaluated;

- creation of the possibility of a new or different kind of accident from any accident previously evaluated; or

- a significant reduction in a margin of safety.

If the change involves none of the above, the change is in Group 2.
If the change involves any one of the above, the change is in Group 1.

Guidelines for making a determination under the four tests above are provided sequentially below. However, the TU Electric screener may perform the tests in any order (e.g., if a change clearly will significantly reduce a margin of safety, the screener may document the results of that test, thereby eliminating the need to perform evaluations under the other three tests).

b. Does the change involve a significant increase in the probability of an accident previously evaluated?

(i) ANSI-N18.2 1973 divides postulated accidents into three frequency categories:

- Incidents of Moderate Frequency -- Those accidents that may occur during a calendar year.
- Infrequent Incidents -- Those incidents that may occur during the lifetime of the plant.
- Limiting Faults -- Those accidents not expected to occur during the lifetime of the plant, but postulated for the release of significant amounts of radiation.

If a change would qualitatively result in an accident moving from one group to a higher frequency category, it involves a "significant" increase in the probability of an accident.

(ii) In making this qualitative determiniation, the screener should consider, among other things:

- Whether the change as implemented degrades the performance of a safety system assumed to function in the accident analysis (e.g., whether it meets applicable material and construction standards);
- Whether the change causes to be bypassed a system design feature causing entry into an accident condition as described under the "Identification of Causes" section of the FSAR;
- Whether the change increases challenges to a safety system assumed to function in the accident analysis;
- Whether the change degrades overall system reliability, such as by:
  - use of temporary power of less reliable source;
  - use of instrumentation with accuracies less conservative than previously specified;

- decreasing the capability of an auxiliary system to support another system (e.g., reduction of cooling water flow to pump bearings, reduction of HVAC capacity in a Pump or Switchgear Room);

- causing a system or component to operate outside its design or testing limits (e.g., operating a motor outside its rated voltage, amperage, or wattage);

- decreasing system integrity, such as by use of inadequate piping supports or imposing additional loads on existing supports;

o Whether the change increases the probability of failure of (or completely eliminates) a system designed to reduce challenges to safety systems assumed to function in the accident analysis.

c. Does the change involve a significant increase in the consequences of an accident previously evaluated?

(i) Determine whether the change is associated with any system or component used in mitigating the consequences of an accident as analyzed in Chapter 15 of the FSAR.

(ii) If so, will the change impact a parameter related directly to the boundary performance during the accident.

(iii) If so, a qualitative or quantitative assessment of the impact on the relevant parameter must be made to determine whether the impact is "significant". For purposes of the screening, significance is a question of whether the change warrants detailed Staff review in the judgment of the TU Electric screener. Significance as defined here is not a question of ultimate acceptability, since all FSAR amendments have been previously reviewed by TU Electric for compliance with NRC requirements. Significance can be reflected in two ways:

o The change in consequences, regardless of acceptability, brings the value close enough to an accepted safety limit such that detailed NRC Staff review may be warranted.

- The change is relatively large; i.e. even though ultimately acceptable, the change would normally warrant detailed NRC Staff review.

This "significance" test is illustrated in an example in Figure 1. Case 1 in the example does not involve a significant increase in consequences; cases 2, 3, and 4 do involve a significant increase.

d. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

(i) Determine whether the change involves a new failure mode not previously analyzed in the FSAR.

- E.g.: In the accident analyses for steam line breaks outside containment, both MSIVs in a steam line are assumed to close on a high steam line flow signal in less than five seconds. If a change modifies an MSIV in such a way that there is now the possibility of exceeding the minimum five second closure time or the possibility of preventing closure, there is a new failure mode of a different type than previously analyzed.

(ii) If so, determine whether this new failure mode is bounded by a related failure described in Chapter 15 of the FSAR. (Note: accident causing mechanisms may differ.) If not bounded, and there is a credible probability for the failure, the change involves a "new or different kind of accident." On the other hand, if the prior analysis is more limiting, the new event need not be considered.

- E.g.: Introduction of a new propane gas tank onsite could create the possibility of a new or different kind of accident, if there is a credible scenario whereby a tank explosion or fire could adversely affect safety systems.

- E.g.: An accident involving pulling apart a stuck fuel assembly when removing it from spent fuel racks, caused by swelling of the fuel, is not necessarily a new or different kind of accident. This event could be bounded by a postulated Chapter 15 refueling accident that also involves failure of the fuel rods and release of radioactive material directly to secondary containment.

e. Does the change involve a significant reduction in a margin of safety?

(i) Determine whether the proposed change impacts any margin of safety (e.g., defined in the FSAR, regulations, or the bases for technical specifications).

- o For purposes of this test, the relevant margin of safety is the difference between a recognized safety limit and the assumed or design basis failure point. Any margin of safety provided by design over and above the margin of safety defined by the safety limit, is irrevelant to the test.

- o E.g.: Spent fuel racks may have a design basis reactivity coefficient (Keff) of 0.95. An assumed failure point is a Keff of 1.0. This provides a margin of safety of 0.05.

  If the original FSAR calculations, as previously accepted by the NRC Staff, show a maximum Keff of 0.89 and a change would increase that value to 0.91, there is no reduction in a margin of safety for purposes of this test. If a change would increase the value to 0.96, however, there would be a reduction in a margin of safety.

(ii) If there is a reduction in a margin of safety, determine whether this reduction is "significant." The qualitative significance determination, for the purpose of this screening, is not a question of ultimate acceptability since all FSAR amendments have been previously reviewed by TU Electric for compliance with NRC requirements. Rather, it is solely a question of whether, in the judgment of the TU Electric screener, the reduction is more than incremental.

- o Note that if reasonable engineers could differ in their assessment of significance, consider the change to be significant.

- o This "margin of safety" test is illustrated in an example in Figure 2. The margin of safety in that example is as defined in technical specifications.

B. SIGNIFICANCE/STAFF REVIEW GROUPS

Based on the Screening Criteria and procedure outlined above, each FSAR change falls into one of four groups:

Group 4: These changes are not substantive and do not affect the licensing basis previously evaluated and found acceptable by the NRC Staff.

Group 3: These changes are either clearly conservative with respect to the previous commitment or clearly fall outside the scope or intent of the NRC Staff's review under the Standard Review Plant (SRP) (NUREG-0800). Thus they do not affect the licensing basis previously evaluated and found acceptable by the NRC Staff.

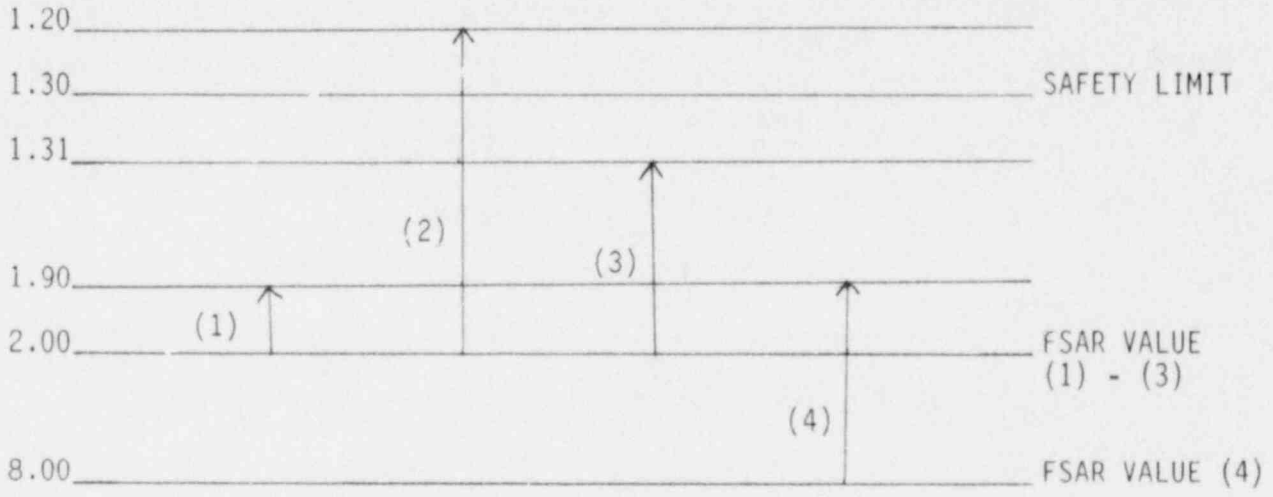
Group 2: These changes substantively modify descriptions and analyses in the FSAR but, in view of the screening criteria applied, are less likely to require detailed NRC Staff review than the changes in Category 1.

Group 1: These changes substantively modify descriptions and analyses in the FSAR, and for the NRC Staff's planning and scheduling purposes, are likely to require detailed NRC Staff review. These have been fully addressed by TU Electric to demonstrate compliance with applicable NRC requirements.

FIGURE 1

EXAMPLE OF INCREASE IN CONSEQUENCES

MINIMUM DNBR IN W-3 CORRELATION



(1) NO INCREASE IN CONSEQUENCES; NO CHANGE (INCREMENTAL) IN CONFIDENCE IN INTEGRITY OF FUEL CLADDING

(2) INCREASE IN CONSEQUENCES; EXCEEDS SAFETY LIMIT

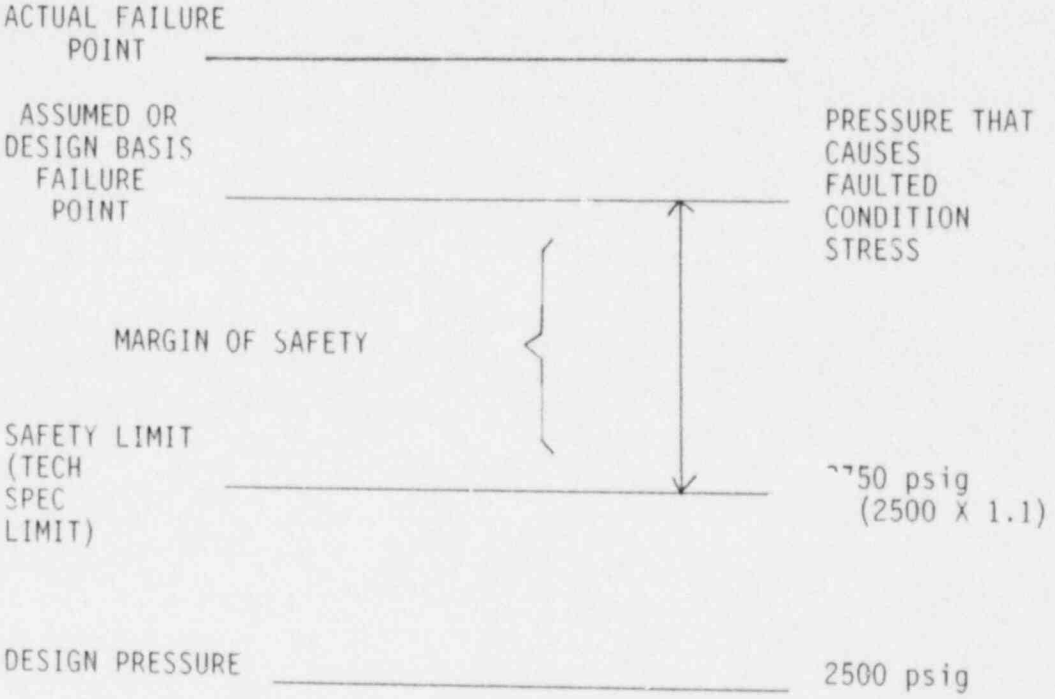
(3) INCREASE IN CONSEQUENCES; NO CHALLENGE TO INTEGRITY OF FUEL CLADDING, BUT CLOSE ENOUGH TO SAFETY LIMIT TO WARRANT DETAILED NRC REVIEW

(4) INCREASE IN CONSEQUENCES; NO CHALLENGE TO INTEGRITY OF FUEL CLADDING, BUT CHANGE IS SIGNIFICANT, WARRANTING DETAILED NRC REVIEW

FIGURE 2

EXAMPLE OF MARGIN OF SAFETY

PWR REACTOR COOLANT SYSTEM PRESSURE LIMIT



TU Electric — FSAR Change Review Information — Chapter : 01 — Page: 1

SEK	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
1.0	4	1.0-1-1.0	Table of Col-i thru 1-[Am-65] Table of contents reissued with new formatix utilizing computerization and the sheets being renumbered.	Editorial
1.0	4	1AB-1-1.0	1A(B)- [Am-64] Reissues full test with new format for change bars and sheets renumbered.	Editorial
1.0	4	1AB-18-1.0	1A(B)-35-71 [Am-65] Re-issues partial text because of section changes which effected the page numbering.	Editorial
1.0	4	1AN-1-1.0	1A(N) [Am-64] Full text reissued with new format for change bars and sheets renumbered.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
1.1	4	1AB-36-1.1	1A(B)-73 and -74 [Am-68] Replaces text for Regulatory Guides 1.138, 1.139 and 1.140 which was inadvertently deleted in Amendment 66.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
1.2	4	1.2-28-1.2	F..2-10 [Am-62] The zero (0) degree and the one hundred eighty (180) degree direction indicators were corrected to make Figure 1.2-10 consistent with other Unit 1 figures.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
1.4	3	1.4-2-1.4	1.4-3 [Am-60] Deletes the narrative description for the Architect-Engineer, Gibbs & Hill, Inc. and adds a description of TUGCO design responsibility.	Update
1.4	4	1.4-1-1.4	Sec 1.4 [Am-60] Changes the narrative descriptions for agents and contractors which were no longer accurate and were not required by the Standard Review Plan or Regulatory Guide 1.70, Revision 2 and were not discussed in NUREG-0797, the CPSES SER dated July, 1981. for detailed qualifications and experience see Chapter 13.	Update
1.4	4	1.4-3-1.4	1.4-6 [Am-60] Changes the organizational description for Brown & Root,	Update
1.4	4	1.4-4-1.4	1.4-7 & 1.4-8 [Am-60] Changes the organizational description for Impell Corporation.	Update
1.4	3	1.4-5-1.4	1.4-9 [Am-60] Changes the organizational description of Impell Corporation and clarifies the scope of TUGCO services.	Update

TU Electric FSAR Change Review Information Chapter : 01 Page: 5

SER Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification

Total Records Processed : 11

TU Electric FSAR Change Review

Chapter 01
EVALUATIONS SUMMARY BY ALPHA DESIGNATOR

ALPHA	GROUPS 1	2	3	4	TOTAL
			1	10	11
Totals :			1	10	11
Factored Totals :			1	10	11

TU Electric FSAR Change Review Information

EVALUATIONS SUMMARY BY GROUP

Chapter : 01

SER	GROUPS 1	2	3	4	TOTAL
01.00.0				4	4
01.01.0				1	1
01.02.0				1	1
01.04.0			1	4	5
TOTAL :			1	10	11

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
2.2	4	2.2-2-2.2	2.2-11 [Am-65] Corrects typographical error "servere" to "severe". (Note: No amendment bar on second paragraph, first sentence)	Editorial
2.2	4	2.2-2-2.2	2.2-12 [Am-65] Corrects typographical error "2.93" to "293" ppm maximum chlorine concentration due to plume release.	Editorial
2.2	4	2.2-3-2.2	2.2-12 [Am-66] Corrects the value stated for the elevation difference between the control room air intakes and the circulating water chlorine storage location to provide consistency with design documents.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
2.3	4	2.4-19-2.3	T2.4-14 [Am-68] Corrects typographical errors to improve clarity and provide consistency with the text.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
2.3.1	4	2.3-1-2.3.1	Sec 2.3 [Am-65] Re-issues full text with new format for change bars and sheets renumbered.	Editorial
2.3.1	4	2.3-2-2.3.1	2.3-14 [Am-66] Deletes the redundant wind velocity information from Section 2.3.1.2.11 "Extreme Winds". Wind loading is discussed in Section 3.3.1.1 "Design Wind Velocity".	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
2.3.3	4	1AB-41-2.3.3	1A(B)-10 [Am-59] Adds reference to response to Question 372.36 for a description of the design and siting of the primary meteorological tower.	Addition
2.3.3	4	2.3-3-2.3.3	2.3-28 [Am-65] Deletes reference to delta temperature between 10 and 30 meters to reflect current design.	Clarification
2.3.3	4	2.3-4-2.3.3	2.3-31 [Am-63] Re-inserts text inadvertently removed in Amendment 47.	Editorial
2.3.3	4	2.3-5-2.3.3	2.3-29 [Am-65] Deletes reference to delta temperature between 10 and 30 meters to reflect current design.	Clarification
2.3.3	4	2.3-6-2.3.3	2.3-29 [Am-65] Corrects typographical error "t" to "Delta T" and inserts "Delta T" where required.	Editorial
2.3.3	4	2.3-7-2.3.3	2.3-30 [Am-65] Adds reference to NRC Questions Q372.16 and Q372.37.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
2.4.1	4	2.4-1-2.4.1	Sec 2.4 [Am-65] Re-issues full text with new format for change bars and sheets renumbered.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
2.4.3	4	2.4-2-2.4.3	Sec 2.4.3 and 2.4.5 [Am-68] Corrects various typographical errors and ommissions and provides changes to ensure consistency between the text, tables and figures.	Clarification
2.4.3	4	2.4-3-2.4.3	2.4-17 [Am-68] Corrects typographical error by changing "overload" to "overland" to improve clarity of meaning and consistency within the text.	Editorial
2.4.3	4	2.4-4-2.4.3	2.4-28 [Am-68] Corrects the text for the maximum wave height runup from "10.2" to "6.8" for the Squaw Creek dam to be consistent with T2.4-14.	Clarification
2.4.3	4	2.4-5-2.4.3	2.4-28 [Am-68] Adds the reference for T2.4-14 to provide clarity and consistency between the text and table.	Clarification
2.4.3	4	2.4-6-2.4.3	2.4-29 [Am-68] Corrects typographical ommissions to provide consistency between text, tables and figures. Revises wave runup and setup elevations.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-65)	Change Classification
2.4.4	3	2.4-10-2.4.4	2.4-47 [Am-65] Reflects a revision to the functional description of the SSI low level alarm. This alarm provides no safety-related function and may be changed from time to time to correspond to lake level management efforts.	Revision
2.4.4	4	2.4-8-2.4.4	2.4-42 [Am-68] Corrects the typographical error from "Figure 2.4-15" to "Figure 2.4-25".	Clarification
2.4.4	4	2.4-9-2.4.4	2.4-44 [Am-65] Corrects typographical error from "762 ft 0" in to "762 ft 6 in" for the minimum water elevation for the service water pumps.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
2.4.6	3	2.4-15-2.4.6	2.4-56 [Am-68] Adds reference for Section 2.5.4.13 for the permanent system of piezometers to measure the onsite groundwater levels.	Update
2.4.6	4	2.4-13-2.4.6	2.4-56 [Am-68] Changes the wording "has been observed" to "were used" to clarify the use of borings to determine water levels.	Clarification
2.4.6	4	2.4-14-2.4.6	2.4-56 [Am-68] Adds reference for F2.5.5-77 to clarify the observed static water levels for the onsite water table and provide consistency between the text and table.	Clarification
2.4.6	4	2.4-16-2.4.6	2.4-56 [Am-68] Adds title for Section 2.5.4.13.1 "Extensometer" to improve clarity of meaning and consistency with the text.	Addition
2.4.6	4	2.4-17-2.4.6	2.4-56 [Am-68] Adds new text which reference Section 2.5.4.13 to describe the postconstruction groundwater monitoring program which is part of a commitment to NRC Question 371.12.	Addition
2.4.6	4	2.4-18-2.4.6	2.4-68 [Am-68] Corrects typographical error from "Section 2.4.3.3.1" to "Section 2.4.13.3.1".	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
2.4.7	4	2.4-11-2.4.7-A	2.4-48 [Am-68] Incorporates the results of a reanalysis using a "more conservative" Source Term. The analysis is taken from the Westinghouse "Radiation Analysis Design Manual," Revision 5.	Update
2.4.7	4	2.4-12-2.4.7	2.4-49 [Am-66] Deletes "Under normal operating conditions, there will be no controlled release of water to Squaw Creek to Squaw Creek Reservoir" and inserted "Controlled releases from Squaw Creek Reservoir are provided to maintain the minimum flow rate in Squaw Creek as required by the Texas Department of Water Resources Permit Number CP-20". This permit requires that TU Electric release enough water flow from Squaw Creek Reservoir to maintain a minimum flow of 1.5 cfs at the Highway 144 crossing over Squaw Creek.	Clarification
2.4.7	4	2.4-20-2.4.7-A	T2.4-20 [Am-68] T2.4-21 [Am-68] Incorporates the results of a reanalysis using a "more conservative" Source Term. The analysis is taken from the Westinghouse "Radiation Analysis Design Manual," Revision 5.	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
2.4.8	4	2.4-7-2.4.8	2.4-31 [Am-68] Corrects typographical error by changing "over-water wind of 95 mph" to "over-water wind of 81 mph" to provide consistency between text, tables and figures.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
2.5	4	2.5-164-2.5-A	2.5A-2 [Am-68] Changes "SSI embankment" to "SSI Dam" and adds "depth of the" to improve clarity of meaning and consistency with the text and the referenced figure.	Clarification
2.5	4	2.5-165-2.5-A	2.5A-3 [Am-68] Deletes "of height" to improve clarity of meaning and consistency with the text and the referenced figures.	Clarification
2.5	4	2.5-166-2.5-A	2.5A-3 [Am-68] Adds references for Figures 2.5A-19 and 2.5A-20 for histograms of grain size distributions for the rock fill, Filler A and Filler B.	Clarification
2.5	4	2.5-167-2.5-A	T2.5A-1, 2 and 4 [Am-68] Adds note to the table to clarify the unit of measure for the vane readings.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
2.5.1	2	2.5-11-2.5.1	2.5-30 and 2.5-31 [Am-68] Adds new text from the 1985-1986 Dames and Moore geophysical study on site geology which confirms the preexcavation foundation design parameters.	Update
2.5.1	4	2.5-1-2.5.1	Sec 2.5 [Am-68] As a result of the SWEC validation effort of design basis documents relating to Geology and Seismology, Section 2.5 has been reorganized and reworded to support the new information made available from the review of existing design documents and the development of new design studies. These changes have been made to improve the clarity of meaning and consistency of wording within the text, and to support updates to figures and tables.	Update
2.5.1	4	2.5-2-2.5.1	2.5-1 [Am-68] Adds references for Figures 2.5.1-1, 2.5.1-3, 2.5.1-4, 2.5.1-5, 2.5.2-2, 2.5.2-3, 2.5.2-6 and 2.5.2-8 to improve consistency between the text and figures.	Clarification
2.5.1	4	2.5-3-2.5.1	2.5-6 [Am-68] Corrects typographical error by changing "100 feet" to 1000 feet".	Editorial
2.5.1	4	2.5-4-2.5.1	2.5-14 [Am-68] Corrects omissions of "Arch" and "Uplift" to improve clarity of meaning.	Clarification
2.5.1	4	2.5-5-2.5.1	2.5-14 [Am-68] Restructures the sentence to improve the clarity of meaning.	Clarification
2.5.1	4	2.5-6-2.5.1	2.5-20 [Am-68] Restructures sentence to improve clarity of meaning.	Clarification
2.5.1	4	2.5-7-2.5.1	2.5-28 [Am-68] Restructures sentence to improve clarity of meaning.	Clarification
2.5.1	4	2.5-9-2.5.1	2.5-28 [Am-68] Deletes "(Orbitolina, a megascopic foraminifera)".	Editorial
2.5.1	4	2.5-10-2.5.1	2.5-29 [Am-68] Changes "30" to "30-40" to improve consistency between the text and the 1985-1986 Dames and Moore geophysical study.	Clarification
2.5.1	4	2.5-12-2.5.1	2.5-33 [Am-68] Corrects errors in figure references from "2.5-1- 24, 25" to 2.5.1-23A, 24A" to improve consistency between the text and figures. Sentence restructured to improve clarity of meaning.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
2.5.1	4	2.5-13-2.5.1	2.5-34 [Am-68] Corrects errors in figure references, from "2.5.1- 33 and 34" to "2.5.1-34 and 35" to improve consistency between the text and figures.	Clarification
2.5.1	4	2.5-14-2.5.1	2.5-37 [Am-68] Adds section title "3.1.2.2 Oil and Gas Wells" to improve clarity of meaning with the text.	Clarification
2.5.1	4	2.5-15-2.5.1	2.5-37 [Am-68] Adds "hydrocarbon" to improve clarity at meaning.	Editorial
2.5.1	4	2.5-16-2.5.1	2.5-38 [Am-68] Adds "exploratory or" to improve clarity of meaning.	Clarification
2.5.1	4	2.5-17-2.5.1	2.5-38 [Am-68] Adds "Paleozoic" to improve clarity of meaning.	Clarification
2.5.1	4	2.5-18-2.5.1	2.5-51 [Am-68] Corrects error in figure reference from "2.5.1-26" to "2.5.1-20" to improve consistency between the text and figure.	Clarification
2.5.1	4	2.5-141-2.5.1	F2.5.1-2 [Am-67] Incorporates additional information from the 1985- 1986 Dames and Moore geophysical study to improve clarity and consistency between the text and figure.	Clarification
2.5.1	4	2.5-142-2.5.1	F2.5.1-7 [Am-67] Adds more editorial detail to improve clarity of meaning and consistency between the text and figure. This does not constitute a technical change.	Editorial
2.5.1	4	2.5-143-2.5.1	F2.5.1-11, 13, 14 and 16 [Am-67] Incorporates additional information form the 1985-1986 Dames and Moore geophysical study to improve clarity and consistency between the text and figure.	Clarification
2.5.1	4	2.5-144-2.5.1	F2.5.1-32 [Am-67] Adds more editorial detail to improve clarity of meaning and consistency between the text and figure. This does not constitute a technical change.	Editorial
2.5.1	4	2.6-8-2.5.1	2.5-28 [Am-68] Changes "70" to "60-70" to improve consistency between the text and the 1985-1986 Dames and Moore geophysical study.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
2.5.2	2	2.5-22-2.5.2	2.5-94,95,97,98,100,101 and 102 [Am-68] Adds new text from the 1985-1986 Dames and Moore geophysical study on site geology which confirms the preexcavation foundation design parameters.	Update
2.5.2	4	2.5-19-2.5.2	2.5-65 [Am-68] Corrects error for reference from "[83]" to "[70]" to improve consistency between the text and references.	Clarification
2.5.2	4	2.5-20-2.5.2	2.5-76 [Am-68] Corrects error in figure reference from "2.5.2-12" to "2.5.2-2" to improve consistency between the text and figure.	Clarification
2.5.2	4	2.5-21-2.5.2	2.5-82 [Am-68] Corrects error in figure reference from "2.5.2-3" to "2.5.2-13" to improve consistency between the text and figure.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
2.5.4	2	2.5-26-2.5.4	2.5-124 [Am-68] Adds new text from the 1985-1986 Dames and Moore geophysical study on site geology which confirms the preexcavation foundation design parameters.	Update
2.5.4	2	2.5-32-2.5.4	2.5-127 [Am-68] Adds new text from the 1985-1986 Dames and Moore geophysical study on site geology which confirms the preexcavation foundation design parameters.	Update
2.5.4	2	2.5-36-2.5.4	2.5-130, and -131 [Am-68] Adds new text from the 85-86 Dames and Moore geophysical study on site geology which confirms the pre-excavation foundation design parameters.	Update
2.5.4	2	2.5-41-2.5.4	2.5-134 [Am-68] Adds new text from the 1985-1986 Dames and Moore geophysical study on site geology which confirms the preexcavation foundation design parameters.	Update
2.5.4	2	2.5-44-2.5.4	2.5-135 [Am-68] Adds description and reference for new Figure 2.5.4-30A.	Update
2.5.4	2	2.5-45-2.5.4	2.5-135 [Am-68] Adds new text from the 1985-1986 Dames and Moore geophysical study on site geology which confirms the preexcavation foundation design parameters.	Update
2.5.4	2	2.5-52-2.5.4	2.5-138 [Am-68] Depicts new information on dry, moist and saturated unit weight values for Category I backfill based on in- place density tests.	Update
2.5.4	2	2.5-55-2.5.4	2.5-138 [Am-68] Depicts new information on dry, moist and saturated unit weight values for Category I bedding based on in- place density tests.	Update
2.5.4	2	2.5-67-2.5.4	2.5-142 [Am-68] Adds reference for new Table 2.5.4-13A for the summary of additional cyclic strength tests.	Addition
2.5.4	2	2.5-73-2.5.4	2.5-143 [Am-68] Provides additional information and references for Section 2.5.4.9 to improve clarity of meaning and consistency within the text. Sentence restructured to improve clarity of meaning.	Update
2.5.4	2	2.5-77-2.5.4	2.5-144 [Am-68] Revises values in T2.5.4-6 as changed by the validation bearing capacity calculations.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
2.5.4	2	2.5-78-2.5.4	2.5 145 [Am-68] Adds additional text to discuss the bearing capacity analysis performed during the validation effort and references revised tables.	Addition
2.5.4	2	2.5-79-2.5.4	2.5-145 [Am-68] Adds additional compressive strength data.	Addition
2.5.4	2	2.5-80-2.5.4	2.5-145 [Am-68] Revises values in T2.5.4-6 as changed by the validation bearing capacity calculation.	Revision
2.5.4	2	2.5-81-2.5.4	2.5-146 [Am-68] Adds new text to discuss the bearing capacity analysis performed during the validation effort and references new Table.	Addition
2.5.4	2	2.5-84-2.5.4	2.5-146 and -147 [Am-68] Adds and revises the text to Section 2.5.4.10.2, Settlement of Foundations, to describe the settlement analysis for Category I structures to improve clarity of meaning and consistency between the text and referenced tables and figures.	Update
2.5.4	2	2.5-85-2.5.4	2.5-148 and -149 [Am-68] Deletes the old text and adds new text to Section 2.5.4.10.3 to more clearly explain the lateral forces used for design purposes. Sentence restructured to improve clarity of meaning.	Addition
2.5.4	2	2.5-86-2.5.4	2.5-150 [Am-68] Deletes old text and adds new text to Section 2.5.4.11 to include the minimum allowable factors of safety for static and dynamic bearing capacity and slope stability design criteria. Adds references for sections on bearing capacity settlement, lateral loads, slope stability and rock and soil properties.	Addition
2.5.4	2	2.5-89-2.5.4	2.5-151 [Am-68] Adds new text for Section 2.5.4.13.2 to describe the postconstruction groundwater monitoring program which is part of a commitment to NRC Question 371.12.	Addition
2.5.4	2	2.5-90-2.5.4	2.5-152 [Am-68] Adds new text for Section 2.5.4.14 to improve clarity of meaning and consistency within the text on in-leakage and groundwater monitoring.	Addition
2.5.4	2	2.5-137-2.5.4	T2.5.4-6 [Am-68] Revises values in T2.5.4-6 as changed by the validation bearing capacity calculations.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			Sub-divides original T2.5.4-6 into two tables to list the bearing capacity analysis as a static (T2.5.4-6) and dynamic (T2.5.4-6a) summary.	
4	2	2.5-138-2.5.4	T2.5.4-6A [Am-68] Adds T2.5.4-6A to include the "Dynamic Bearing Capacity Analysis" in the FSAR.	Update
5.4	2	2.5-139-2.5.4	T2.5.4-7 [Am-68] Updates Table to reflect revised text for Section 2.5.4.10.2 describing the settlement analysis for Category I structures.	Update
2.5.4	2	2.5-140-2.5.4	T2.5.4-11 thru 13 [Am-68] Adds more details on the cyclic shear strength criteria for backfill, bedding and filters.	Update
2.5.4	2	2.5-145-2.5.4	F2.5.4-14 [Am-67] Incorporates additional information from the 1985-1986 Dames and Moore geophysical study to improve clarity and consistency between the text and figure.	Update
2.5.4	2	2.5-146-2.5.4	F2.5.4-14A [Am-67] Adds new figure "Plan and Location of Postconstruction Crosshole Survey". Incorporates additional information from the 1985-1986 Dames and Moore geophysical study to improve clarity and consistency between the text and figure.	Addition
2.5.4	2	2.5-149-2.5.4	F2.5.4-30A [Am-67](Shts. 1&2) Add new figure "Generalized Subsurface Profile and Seismic Wave Velocities". Incorporates additional information from the 1985-1986 Dames and Moore geophysical study to improve clarity and consistency between the text and figure.	Addition
2.5.4	2	2.5-153-2.5.4	F2.5.4-39 [Am-67](Shts. 1-4) Adds more detail for the cyclic shear strength criteria of granular materials used for backfill, bedding and filters.	Update
2.5.4	2	2.5-155-2.5.4	F2.5.4-42 [Am-67] Revises Figure to reflect the results of the new bearing capacity calculations performed by SWEC. Adds more editorial detail to improve clarity of meaning and consistency between the text and figure.	Update
2.5.4	2	2.5-157-2.5.4	F2.5.4-44 and F2.5.4-48 [Am-67] Updates figures to incorporate average densities for Category I backfill and bedding.	Update
2.5.4	2	2.5-158-2.5.4	F2.5.4-54 [Am-67] Adds new figure to support the new text for Section 2.5.4.10.3 which clarifies lateral loads.	Addition

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
2.5.4	2	2.5-159-2.5.4	F2.5.4-55 and -56 [Am-67] Adds new figure to illustrate the installation location of piezometers to determine subgrade water conditions.	Addition
2.5.4	2	2.5-160-2.5.4	F2.5.4-56 [Am-67] Adds new figure to illustrate the piezometer details. Adds new figure to illustrate the installation location of piezometers to determine subgrade water conditions.	Addition
2.5.4	4	2.5-23-2.5.4	2.5-102 [Am-68] Rewords title for Section 2.5.4.2.3 from "Rock Core Analyses" to Rock Core Composition Analyses" to improve consistency and clarity of meaning.	Clarification
2.5.4	4	2.5-24-2.5.4	2.5-123 [Am-68] Restructures sentence to improve clarity of meaning.	Clarification
2.5.4	4	2.5-25-2.5.4	2.5-124 [Am-68] Changes "explorations" to "surveys", adds "P-10, M-1, D1-2, D1-8A and D1-9" and changes "Figure" to "Figures 2.5.5-5 and" to improve clarity of meaning and consistency between the text and figures.	Clarification
2.5.4	4	2.5-27-2.5.4	2.5-125 [Am-68] Restructures sentence to improve clarity of meaning.	Clarification
2.5.4	4	2.5-28-2.5.4	2.5-125 [Am-68] Changes table references from "2.5.4-6 and 2.5.4- 7" to "2.5.4-5B and 2.5.4-5C" to provide new information to improve clarify of meaning and consistency with the text and tables.	Clarification
2.5.4	4	2.5-29-2.5.4	2.5-125,126 [Am-67] Revision date and/or amendment number were repositioned on page.	Editorial
2.5.4	4	2.5-30-2.5.4	2.5-126 [Am-68] Adds table references for "Table 2.5.4-5B and 2.5.4-5C" to provide information to improve clarity of meaning.	Clarification
2.5.4	4	2.5-31-2.5.4	2.5-127 [Am-68] Restructures sentence to improve clarity of meaning.	Clarification
2.5.4	4	2.5-34-2.5.4	2.5-128 [Am-68] Changes "uphold survey" to "uphole shear survey". Restructures sentence for clarity of meaning.	Clarification
2.5.4	4	2.5-35-2.5.4	2.5-129 [Am-68] Adds "compressional and", "in the initial survey". Restructures the sentence to improve the clarity of meaning. Changes figure	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			references from "2.5.4.4-1 and 2.5.4.4-2" to "2.5.4-5B and 2.5.4-5C" to improve consistency between text and tables.	
2.5.4	4	2.5-37-2.5.4	2.5-132 [Am-68] Rewords title for Section 2.5.4.4.6 from "Gamma Ray and Resistivity Logs" to "Borehole Geophysical Logs" to improve consistency and clarity of meaning.	Clarification
2.5.4	4	2.5-38-2.5.4	2.5-132 [Am-68] Adds new text from the 1985-1986 Dames and Moore geophysical study on site geology which confirms the preexcavation foundation design parameters.	Update
2.5.4	4	2.5-39-2.5.4	2.5-133 [Am-68] Adds new text to improve the clarity of meaning. This addition of new text does not constitute a technical change.	Update
2.5.4	4	2.5-40-2.5.4	2.5-134 [Am-68] Restructures sentence to improve clarity of meaning.	Clarification
2.5.4	4	2.5-42-2.5.4	2.5-135 [Am-68] Restructures sentence to improve clarity of meaning.	Clarification
2.5.4	4	2.5-43-2.5.4	2.5-135 [Am-68] Adds "43-ft thick" to improve consistency between the text and figure. Changes "Class I" to "Category I" to use the most correct CPSES terminology.	Clarification
2.5.4	4	2.5-46-2.5.4	2.5-135 [Am-68] Changes "Class 1E" to "Seismic Category I" to use the most correct CPSES terminology.	Clarification
2.5.4	4	2.5-47-2.5.4	2.5-136 [Am-68] Restructures sentence to improve consistency with p. 2.5-135.	Clarification
2.5.4	4	2.5-48-2.5.4	2.5-136 [Am-68] Corrects the number of sheets for Figure 2.5.4-37 from "31" to "21".	Clarification
2.5.4	4	2.5-49-2.5.4	2.5-136 [Am-68] Changes "Class I" to "Category I". Sentence restructured for clarity of meaning.	Clarification
2.5.4	4	2.5-50-2.5.4	2.5-136 [Am-68] Changes "Class I" to "Seismic Category I". Sentence restructured for clarity of meaning.	Clarification
2.5.4	4	2.5-51-2.5.4	2.5-136 [Am-68] Restructures sentence to provide consistency with text changes in Section 2.5.4.5.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
2.5.4	4	2.5-53-2.5.4	2.5-138 [Am-68] Changes "Class 1" to "Seismic Category I". Sentence restructured for clarity of meaning.	Clarification
2.5.4	4	2.5-54-2.5.4	2.5-138 [Am-68] Restructures text to improve clarity of meaning and consistency with referenced figures.	Clarification
2.5.4	4	2.5-56-2.5.4	2.5-139 [Am-68] Rewords title for Section 2.5.4.7 from "Response to Class I Backfill and Bedding to Dynamic Loading" to "Response to Soil Dynamic Loading" to improve clarity of meaning within the text.	Clarification
2.5.4	4	2.5-57-2.5.4	2.5-139 [Am-68] Adds new text to improve clarity of meaning and consistency within the text. This clarification does not constitute a technical change.	Clarification
2.5.4	4	2.5-58-2.5.4	2.5-139 [Am-68] Changes "cyclic characteristics" and "cyclic strength characteristics" to "cyclic shear strength characteristics"; "Class I" to "Category I", and "cyclic strength criteria" to "cyclic shear strength criteria", to improve the consistency between the text and the figure.	Clarification
2.5.4	4	2.5-59-2.5.4	2.5-139 [Am-68] Deletes reference to Gibbs and Hill, Inc. specifications. In general, design and construction specifications are being deleted because (1) specific identification of these specifications is not necessary in the FSAR, and (2) some specifications are being superceded in the design validation process.	Clarification
2.5.4	4	2.5-60-2.5.4	2.5-139 [Am-68] Changes "peak to peak axial strain" to "double amplitude strain" to improve the consistency between the text and the table. Sentence restructured for clarity of meaning. 2.5-140 Clarification: Changes "sampled" to "tested" and "physical properties" to "density" to improve clarity of meaning and consistency between the text and the figure.	Clarification
2.5.4	4	2.5-61-2.5.4	2.5-139 [Am-68] Changes "accurate" to "conventional", "particle cell" to "triaxial cell" and "triaxial testing" to "cyclic triaxial testing". Sentence restructured for clarity of meaning.	Clarification
2.5.4	4	2.5-62-2.5.4	2.5-141 [Am-68] Changes "described by" to "recommended by". Sentence restructured for clarity of meaning.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
2.5.4	4	2.5-63-2.5.4	2.5-141 [Am-68] Changes "cyclic shear testing" to "cyclic triaxial testing". Sentence restructured for clarity of meaning.	Clarification
2.5.4	4	2.5-64-2.5.4	2.5-141 [Am-68] Changes "cyclic shear testing" to "cyclic triaxial testing" and "cyclic strength criteria" to "cyclic strain criteria". Sentence restructured to improve clarity of meaning.	Clarification
2.5.4	4	2.5-65-2.5.4	2.5-141 [Am-68] Changes "Four representative plots" to "One plot for each material tested at various confining pressures" and "strength" to "strain".	Clarification
2.5.4	4	2.5-66-2.5.4	2.5-141 [Am-68] Adds "the Glen Rose crushed limestone". Sentence restructured to improve clairty of meaning.	Clarification
2.5.4	4	2.5-68-2.5.4	2.5-142 [Am-68] Adds "at reduced stress levels" and changes "cyclic shear criteria" to "cyclic strain criteria". Sentence restructured to improve clarity of meaning.	Clarification
2.5.4	4	2.5-69-2.5.4	2.5-142 [Am-68] Adds "at reduced stress levels". Sentence restructured to improve clarity of meaning.	Clarification
2.5.4	4	2.5-70-2.5.4	2.5-143 [Am-68] Deletes references to Gibbs and Hill specification and adds references for T2.5.4-11 for cyclic shear strength criteria to improve consistenc between the text and table.	Clarification
2.5.4	4	2.5-71-2.5.4	2.5-143 [Am-68] Changes "Category" to "Category I" and "rock" to "crushed stone". Sentence restructured to improve clarity of meaning.	Clarification
2.5.4	4	2.5-72-2.5.4	2.5-143 [Am-68] Changes title for Section 2.5.4.9 from "Earthquake Design Basis-Reliquefaction to "Earthquake Design Basis" to improve consistency and clarity of meaning.	Clarification
2.5.4	4	2.5-74-2.5.4	2.5-144 [Am-68] Changes title for Section 2.5.4.10.1 from "Safety Against Shear Failure" to "Bearing Capacity" to improve the consistency and clarity of meaning with revised text.	Clarification
2.5.4	4	2.5-75-2.5.4	2.5-144 [Am-68] Revises text to discuss the bearing capacity analysis performed during the validation effort and references the revised tables.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
2.5.4	5	2.5-76-2.5.4	2.5-144 [Am-68] Adds additional compressive strength data.	Addition
2.5.4	4	2.5-82-2.5.4	2.5-146 [Am-68] Adds T2.5.4-6A to include the "Dynamic Bearing Capacity Analysis" in the FSAR.	Update
2.5.4	4	2.5-83-2.5.4	2.5-146 [Am-68] Changes "toe" to "edge", "35 kips" to 24.9 kips" and "1.9" to "2.0" to be consistent with design analyses and referenced figure.	Clarification
2.5.4	4	2.5-87-2.5.4	2.5-150 [Am-68] Deletes references to Gibbs and Hill, Inc., specifications. In general, design and construction specifications are being deleted because (1) specific identification of these specifications is not necessary in the FSAR, and (2) some specifications are being superceded in the design validation process.	Clarification
2.5.4	4	2.5-88-2.5.4	2.5-151 [Am-68] Adds title for Section 2.5.4.13.1 "Extensometer" to improve clarity of meaning and consistency with the text.	Addition
2.5.4	4	2.5-91-2.5.4	2.5-152 [Am-68] Delete "Nuclear Power" and "the failure of which" and add "whose failure". Sentence restructured to add clarity of meaning.	Clarification
2.5.4	4	2.5-92-2.5.4	2.5-152 [Am-68] Deletes "Reservoir" and adds "of a part of the reservoir in the plant site vicinity shown". Sentence restructured to add clarity of meaning.	Clarification
2.5.4	4	2.5-147-2.5.4	F2.5.4-21 [Am-67] Adds more editorial detail to improve clarity of meaning and consistency between the text and figure. This does not constitute a technical change.	Editorial
2.5.4	4	2.5-148-2.5.4	F2.5.4-27 [Am-67] Changes "Class 1" to "Category I". Adds more editorial detail to improve clarity of meaning and consistency between the test and figure. This does not constitute a technical change.	Clarification
2.5.4	4	2.5-150-2.5.4	F2.5.4-31 [Am-67] (Sheets 1 and 2) Changes "Class 1" and "Structural" to "Category I" and adds "VIEW LOOKING EAST". Adds more editorial detail to improve clarity of meaning and consistency between the text and figure.	Clarification
2.5.4	4	2.5-151-2.5.4	F2.5.4-32 [Am-67] Changes "Class 1 Electrical" to "Class 1E Electrical" and "Class 1" to "Category I". Adds more editorial detail to improve clarity	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			of meaning and consistency between the text and figure.	
2.5.4	4	2.5-152-2.5.4	F2.5.4-33A and 33B [Am-67] Adds coordinate indicators. Adds more editorial detail to improve clarity of meaning and consistency between the text and figure.	Clarification
2.5.4	4	2.5-154-2.5.4	F2.5.4-40 [Am-67] Adds more editorial detail to improve clarity of meaning and consistency between the text and figure. This does not constitute a technical change.	Editorial
2.5.4	4	2.5-156-2.5.4	F2.5.4-43 [Am-67] Adds more editorial detail to improve clarity of meaning and consistency between the text and figure.	Editorial
2.5.4	4	2.5-168-2.5.4	2.5-144 [Am-68] Changes "Class I" to "Category I" and "bending" to "bedding". Sentence restructured to improve clarity of meaning.	Clarification
2.5.4	4	2.5-169-2.5.4	2.5-137 [Am-68] Restructures sentence to improve consistency with the text and figures.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
2.5.5	4	2.5-93-2.5.5	2.5-154 [Am-68] Adds title "Log of Borings" to improve clarity of meaning.	Clarification
2.5.5	4	2.5-94-2.5.5	2.5-155 [Am-68] Deletes "and the quantity of" to provide consistency within the referenced section.	Clarification
2.5.5	4	2.5-95-2.5.5	2.5-156 [Am-68] Corrects error in the figure reference from "2.4- 16" to "2.4-1" to improve the consistency between the text and figures.	Clarification
2.5.5	4	2.5-161-2.5.5	F2.5.5-16, F2.5.5-7, F2.5.5-10, F2.5.5-11, [Am-67](Shts.1&2) F2.5.5-36 [Am-67] Adds more editorial detail to improve clarity of meaning and consistency between the text and figure. This does not constitute a technical change.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
2.5.6	2	2.5-136-2.5.6	T2.5.4-5E,-5F,-5G, and -5H [Am-68] Incorporates new information from the 1985-1986 Dames and Moore geophysical study on site geology which confirms the preexcavation foundation design parameters to improve clarity and consistency between the text and figures.	Update
2.5.6	2	2.5-162-2.5.6	F2.5.6-47 [Am-67] F2.5.6-48 [Am-67] Adds more detail for the cyclic shear strength criteria of granular materials used for backfill, bedding and filters.	Update
2.5.6	4	2.5-96-2.5.6	2.5-158 [Am-68] Changes "intervals" to "vertical interval". Sentence restructured to add clarity to meaning.	Clarification
2.5.6	4	2.5-97-2.5.6	2.5-159 [Am-68] Changes "permeability characteristic" to "permeability". Sentence restructured to add clarity to meaning.	Clarification
2.5.6	4	2.5-98-2.5.6	2.5-159 [Am-68] Changes "recorded, at the surface" to "and". Sentence restructured to add clarity to meaning.	Clarification
2.5.6	4	2.5-99-2.5.6	2.5-160 and -161 [Am-68] Changes "balancing" to "equalization". Sentence restructured to add clarity to meaning.	Clarification
2.5.6	4	2.5-101-2.5.6	2.5-163 [Am-68] Changes "Rock" to "Limestone". Sentence restructured to add clarity to meaning.	Clarification
2.5.6	4	2.5-102-2.5.6	2.5-164 [Am-68] Changes "Rock" to "Limestone". Sentence restructured to add clarity to meaning. (Continuation from page 2.5-163)	Clarification
2.5.6	4	2.5-103-2.5.6	2.5-164 [Am-68] Deletes "plan view and" to provide consistency between the text and the referenced figure.	Clarification
2.5.6	4	2.5-104-2.5.6	2.5-167 [Am-68] Restructured the sentence to improve clarity of meaning.	Clarification
2.5.6	4	2.5-105-2.5.6	2.5-171 [Am-68] Changes "cyclic strength" to "cyclic shear strength" and adds reference numbers 130 thru 133 to the text. Sentence restructured to improve the clarity of meaning. Clarification: Adds reference number "136" to the text. Clarification: Adds "the relationship	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			shown in" and corrects typographic error in figure reference from "2.56-47" to "2.5.6- 47". Sentence restructured to improve clarity to meaning.	
2.5.6	4	2.5-106-2.5.6	2.5-173 [Am-68] Restructures the sentence to improve the clarity of meaning.	Clarification
2.5.6	4	2.5-107-2.5.6	2.5-173 [Am-68] Changes "cyclic strength" to "cyclic shear strength". Sentence restructured to improve the clarity of meaning.	Clarification
2.5.6	4	2.5-108-2.5.6	2.5-173 [Am-68] Changes "shear strength" to "cyclic shear strength" and "ultimate" to "conservative". Sentence restructured to improve the clarity of meaning.	Clarification
2.5.6	4	2.5-109-2.5.6	2.5-174 [Am-68] Changes "Excavation" to "Excavation operations" and "embankment" to "test-embackment". Sentence restructured to improve clarity of meaning.	Clarification
2.5.6	4	2.5-110-2.5.6	2.5-174 [Am-68] Changes "embackment" to "test-embackment" and "test" to "source of material". Sentence restructured to improve clarity of meaning.	Clarification
2.5.6	4	2.5-11 -2.5.6	2.5-177 [Am-68] Adds "rockfill embankment material and the " to improve clarity of meaning and consistency of text.	Clarification
2.5.6	4	2.5-112-2.5.6	2.5-179 [Am-68] Removes reference from text and adds the reference number "134" to the text.	Editorial
2.5.6	4	2.5-113-2.5.6	2.5-180 [Am-68] Deletes "approximately". Sentence restructured to improve clarity of meaning.	Clarification
2.5.6	4	2.5-114-2.5.6	2.5-181 [Am-68] Changes "Design verification" to "Verification". Sentence restructured to improve clarity of meaning.	Clarification
2.5.6	4	2.5-115-2.5.6	2.5-182 [Am-68] Deletes "uniform slope of". Sentence restructured to improve clarity of meaning.	Clarification
2.5.6	4	2.5-116-2.5.6	2.5-182 [Am-68] Deletes "in the range of". Sentence restructured to improve clarity of meaning.	Clarifi...

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
2.5.6	4	2.5-117-2.5.6	2.5-182 [Am-68] Deletes "in the range of" and "a value in the range of". Adds "...the shell, the safety factor was found to be 1.38. The .... Sentence restructured to improve clarity of meaning.	Clarification
2.5.6	4	2.5-118-2.5.6	2.5-183 [Am-68] Removes reference from text and add the reference numbers "135", "136" and "137" to the text. Clarification: Removes references from the text and adds reference numbers 138 thru 141 to the text.	Clarification
2.5.6	4	2.5-119-2.5.6	2.5-185 [Am-68] Removes reference from the text and adds reference number "142" to the text.	Clarification
2.5.6	4	2.5-120-2.5.6	2.5-185 [Am-68] Changes "mini-dam" to "SSI Dam". Sentence restructured to improve clarity of meaning.	Clarification
2.5.6	4	2.5-121-2.5.6	2.5-186 [Am-68] Removes reference from the text and adds reference number "143" to the text.	Clarification
2.5.6	4	2.5-122-2.5.6	2.5-190 [Am-68] Changes section reference from "2.5.6.5.2" to "2.5.6.5.2.6" to improve consistency within the text.	Clarification
2.5.6	4	2.5-123-2.5.6	2.5-201 [Am-68] Restructures the sentence to improve the clarity of meaning.	Clarification
2.5.6	4	2.5-124-2.5.6	2.5-205 [Am-68] Adds "The piezometers were grouped in three ranges". Sentence restructured to improve clarity to meaning.	Clarification
2.5.6	4	2.5-125-2.5.6	2.5-205 [Am-68] Adds "(wellpoint)" and "(pneumatic)". Sentence restructured to improve clarity of meaning.	Clarification
2.5.6	4	2.5-126-2.5.6	2.5-206 [Am-68] Restructures sentence to improve clarity of meaning.	Clarification
2.5.6	4	2.5-127-2.5.6	2.5-207 [Am-68] Changes section reference from "2.5.6.3" to "2.5.6.3.1" to improve consistency within the text.	Clarification
2.5.6	4	2.5-128-2.5.6	2.5-208 [Am-68] Changes "plasticity index" to "liquid limit". Sentence restructured to improve clarity of meaning.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
2.5.6	4	2.5-129-2.5.6	2.5-209 [Am-68] Changes section reference from "2.5.6.7" to "2.5.6.7.1" to improve consistency within the text.	Clarification
2.5.6	4	2.5-130-2.5.6	2.5-210 [Am-68] Changes section reference from "2.5.6.3" to "2.5.6.3.2" to improve consistency within the text.	Clarification
2.5.6	4	2.5-131-2.5.6	2.5-212 [Am-68] Adds "Originally up to a 12-inch loose lift thickness was allowed". Sentence restructured to improve clarity to meaning.	Clarification
2.5.6	4	2.5-132-2.5.6	2.5-228 & 2.5-229 [Am-68] Adds references to improve clarity of meaning and consistency within the text.	Addition
2.5.6	4	2.5-133-2.5.6	T2.5.4-5 [Am-68] Revises the table title to provide more clarity of meaning and consistency with the text.	Clarification
2.5.6	4	2.5-134-2.5.6	T2.5.4-5A [Am-68] Revises the table title to provide more clarity of meaning and consistency with the text.	Clarification
2.5.6	4	2.5-135-2.5.6	T2.5.4-5B [Am-68] Revises the table title to provide more clarity of meaning and consistency with the text.	Clarification
2.5.6	4	2.5-163-2.5.6	Sec 2.5A [Am-68] Corrects typographical errors and rewords portions of this section to ensure the consistency between the text, tables and figures.	Clarification

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SER Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification

Total Records Processed : 198

TU Electric FSAR Change Review

Chapter 02

EVALUATIONS SUMMARY BY ALPHA DESIGNATOR

ALPHA	GROUPS 1	2	3	4	TOTAL
		37	2	153	192
A				6	6
Totals :		37	2	159	198
Factored Totals :		37	2	154	193

TU Electric FSAR Change Review Information

EVALUATIONS SUMMARY BY GROUP

Chapter : 02

SER	GROUPS 1	2	3	4	TOTAL
02.02.0				3	3
02.03.0				1	1
02.03.1				2	2
02.03.3				6	6
02.04.1				1	1
02.04.3				5	5
02.04.4			1	2	3
02.04.6			1	5	6
02.04.7				3	3
02.04.8				1	1
02.05.0				4	4
02.05.1		1		21	22
02.05.2		1		3	4
02.05.4		33		58	91
02.05.5				4	4
02.05.6		2		40	42

TU Electric FSAR Change Review Information

EVALUATIONS SUMMARY BY GROUP

Chapter : 02

SER	GROUPS 1	2	3	4	TOTAL
TOTAL :		37	2	159	198

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.1	2	1.3-1-3.1	T1.3-1 [Am-61] GDC-4 States that the dynamic effects of RC loop pipe breaks are excluded from the CPSES design basis. Provides reference to Section 3.1.1.4.	Addition
3.1	2	1.3-3-3.1	T1.3-2 [Am-61] GDC-4 Lists FSAR Sections where leak-before-break/GDC-4 methodology has been used to exclude the dynamic effects of RC loop pipe breaks. (Sheet 7) Lists the WCAP references for the CPSES leak-before-analyses. (Sheet 17)	Addition
3.1	2	3.1-002-3.1-A	3.1-6 [Am-61] Revised quotation from GDC-4	Revision
3.1	2	3.1-003-3.1-A	3.1-6 [Am-61] States the new design basis which incorporates leak-before-break methodology.	Addition
3.1	2	3.6-003-3.1-A	3.6B-6 and 3.6B-7 [Am-61] States the new design basis under Reactor Coolant Loop piping discussion.	Revision
3.1	2	3. -004-3.1-A	3.6B-15 and 3.6B-16 [Am-61] States new design basis and gives a summary of the CPSES leak-before-break analysis.	Revision
3.1	2	3.6-017-3.1-A	3.6B-32 [Am-61] Restates new design basis as it affects jet loads.	Revision
3.1	2	3.6-018-3.1-A	3.6B-38 [Am-68] Deletes reference to pipe whip restraint design for RCS main loop piping. The pipe whip restraints are no longer required for the RCS main loop piping as a result of the application of the leak-before-break technology permitted in GDC-4.	Revision
3.1	2	3.6-020-3.1-A	3.6B-44 [Am-61] Defines how the new design basis is implemented with respect to designated breaks.	Revision
3.1	2	3.6-021-3.1-A	3.6B-39 [Am-68] Discusses how dynamic loads are now addressed for ASME Class 1 components and supports. Deletes a previous discussion on pipe whip restraints that is no longer required due to the leak-before-break methodology.	Revision
3.1	2	5.4-019-3.1	5.4-88 [Am-61] Identified the application of leak-before-break criteria whereby the loop pipe restraint(s) may be eliminated.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.1	3	3.1-001-3.1	3.1-2 [Am-56] Adds an explanation of the provisions for the use of code cases by suppliers of mechanical equipment. Code case use requires the consent of the owner or his agent and the manufacturer. The requirement to use N-5 data report forms is relaxed to using ASME Data Report Forms generally. This allows the appropriate form to be selected.	Addition
3.1	3	3.2-024-3.1	005-5 [Am-61] This section has been updated to include additional Code Cases used in the requalification of Class 1 piping. - Code Case N-122 was first approved by the NRC in R.G. 1.84 dated August 1976. The January 21, 1985 version of the Code Case remains approved in Revision 24 of R.G. 1.84. This Code Case provides guidance (not contained in the Code) for the analysis of structural attachments. - Code Case N-391 was first approved by the NRC in Revision 23 to R.G. 1.84. This Code Case provides guidance for evaluation of welded attachments. - Code Case N-397 was specifically approved for use at CPSES by NRC letter from V.S. Noonan to W.G. Council dated March 10, 1986. This Code Case provides alternate rules for spectral broadening for Class 1, 2, and 3 piping. - Code Case N-411 was specifically approved for use at CPSES by the above letter. This Code Case provides alternate damping values for the seismic analysis of Class 1, 2, and 3 piping systems.	Update
3.1	3	3.2-025-3.1	005-5 thru -6 [Am-65] Class 1, Code Case N-319 is used on a case basis, as an alternative to the stress indices and flexibility factors given in NB-3600 for Class 1 butt welding elbows. Code Case N-319 approved by the ASME on July 13, 1981, and reconfirmed on July 13, 1984, includes and effects considerations when evaluating elbows and provides a distinction in stress indices to be applied to in-plane and out-of plane moments. These considerations result in a more detailed analysis than the current NB-3600 procedure, and allows for a reduced moment stress at the elbow, thereby limiting pipe break stress levels and eliminating unnecessary break locations. Code Case N-319 is approved for general use by the NRC in Regulatory Guide 1.84, Revision 24.	Revision
3.1	3	3.2-026-3.1	005-6 [Am-59] Includes Code Case N-378 to cover seal table material.	Update
3.1	3	3.6-030-3.1-A	3.6B-71 [Am-68] References the Federal Register with regard to the modification to GDC 4.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.1	4	1.6-2-3.1	T1.6-1 [Am-61](Sht. 17) GDC-4 Lists the WCAP references for the CPSES leak-before-break analyses.	Addition
3.1	4	3.1-004-3.1-A	3.1-11 [Am-61] States the new leak-before-break design basis as it relates to GDC-14.	Addition
3.1	4	3.1-005-3.1	3.1-17 [Am-59] Minor wording change to clarify seismic class 1 structure and to add reference to figures.	Clarification
3.1	4	3.6-027-3.1-A	3.6B-70 [Am-61] Adds leak-before-break WCAP analysis and NUREG 1061 to FSAR references	Addition
3.1	4	5.4-020-3.1	5.4-88 [Am-66] Adds a description of the RCS Loop Pipe restraints which are functionally removed from the CPSES Unit 1 and 2 design by the removal of saddle blocks and shims. Additionally, the lateral restraints and non-crushable insulation, although not required, are to remain as installed. (Evaluated under no. 5.4-019-3.1)	Correction
3.1	4	5.4-026-3.1	Figures 5.4-16 thru 5.4-19 [Am-61] Identified the loop restraint(s) which may be eliminated by application of the leak-before-break criteria. Figures 5.4-16 thru 18 were then removed by Amendment 66.	Correction
3.1	4	17A-090-3.1	T17A-1 [Am-61] (Sheet 47) Adds Note 64 as an adjunct to the adoption of leak- before-break methodology. (See also evaluation 3.1-003-3.1-A)	Addition

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.2	4	3.2-001-3.2	Sec 3.2 [Am-66] This section is being reissued in the computerized format.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.2.1	2	1.2-2-3.2.1-A	1.2-23 [Am-65] Removes description of fire protection system separation in relation to seismic category I equipment. Section 3.2.2 contains the technical description of how the fire protection system meets the Class 5 criteria.	Correction
3.2.1	2	1.2-24-3.2.1-A	1.2-28 [Am-65] Removes description of fire protection system separation in relation to seismic category I equipment. Section 3.2.2 contains the technical description of how the fire protection system meets the Class 5 criteria.	Correction
3.2.1	2	17A-084-3.2.1	T17A-1 [Am-66] (Sheet 46) Reflects that Seismic Category I cranes and hoists will maintain their structural integrity during and after the SSE with lifted load, except for the polar crane, which is qualified for OBE with lifted load and SSE without lifted load. Reference is made to the low probability of SSE with lifted load for the polar crane.	Update
3.2.1	3	3.2-004-3.2.1	3.2-5 [Am-66] This change reflects the updates of the Seismic and Q- lists in the FSAR based on the system design parameters for Uninterruptible Power Supply (UPS) Area Air-Conditioning System. (See also 17A-002-3.2.1)	Addition
3.2.1	3	17A-002-3.2.1	17A-6 [Am-66] Adds the Uninterruptible Power Supply (UPS) Air Conditioning System to the Q-list based on the system design parameters. This change also added to the seismic list in Section 3.2. (See also evaluation number 3.2-004-3.2.1)	Addition
3.2.1	3	17A-046-3.2.1	T17A-1 [Am-68] (Sht. 27 and 28) This change revises the seismic category for the Fuel handling equipment. The refueling machine is seismic Category II, but the spend fuel handling tool is not (seismic Category "None").	Correction
3.2.1	3	17A-050-3.2.1	T17A-1 [Am-64] (Sheet 31) This change updates Table 17A-1 to respond to the NRC Request For Additional Information (RAI) dated March 11, 1987. The seismic category for masonry walls is revised from "II" to "None" to reflect the fact that there are no seismically designed masonry walls at CPSES. The item entitled "Removable Precast Block Walls" (previously included as masonry walls) has been added as a new item since these walls are not masonry walls but they do have seismic qualified structural steel supports to prevent their collapse.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.2.1	3	17A-051-3.2.1	T17A-1 [Am-66] (Sheet 31) Adds handrails in Table 17A-1. Handrails installed in seismic Category I buildings have been upgraded to seismic Category II as per requirements of Regulatory guide 1.29 and FSAR Section 3.7B.2.8.	Addition
3.2.1	3	17A-070-3.2.1	T17A-1 [Am-66] (Sheet 40) Adds the Uninterruptible Power Supply (UPS) Air Conditioning System to Table 17A-1 based on the system design parameters. All items are listed as Seismic Category I and are added to the seismic list in Section 3.2.	Addition
3.2.1	3	17A-071-3.2.1	T17A-1 [Am-68] (Sht. 39) The domestic water storage tank, located in the control room ceiling, maintains a supply of survival water. There are no safety-related functional requirements. Therefore, the seismic category is being changed from "I" to "II" which now indicates the correct classification for this tank.	Correction
3.2.1	3	17A-082-3.2.1	T17A-1 [Am-59] (Sht. 46) Updates note 52 to indicate that the design of masonry walls is complete and they have been evaluated for seismic interaction. Previously the note indicate intent to design the walls by one of three alternative procedures.	Update
3.2.1	3	17A-083-3.2.1	T17A-1 [Am-66] (Sheet 46) Changes FSAR Table 17A-1 to provide a technical update to the engineering design of the SFP cranes and hoists. These changes affect previous design descriptions which could be perceived as commitments. An update is provided for Note 53 to clarify the seismic Category I classification for cranes and hoists. For seismic Category I cranes and hoists, the capability to retain control of the lifted load is indicated.	Update
3.2.1	3	17A-089-3.2.1	T17A-1 [Am-59] (Sheet 47) Adds Note 63 for use with certain gypsum internal walls.	Addition
3.2.1	4	3.2-002-3.2.1	3.2-1 [Am-66] Adds the word "seismic" for clarification to emphasize the seismic requirements (aspects) of GDC 2, since GDC 2 addresses other phenomena.	Editorial
3.2.1	4	3.2-003-3.2.1	3.2-1 [Am-66] The reference to ASME B&PV Code is deleted since it does not "identify and classify" seismic components, structures and systems. It is a design, fabrication, examination, installation, etc.,	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			Code.	
3.2.1	4	3.2-005-3.2.1	3.2-5 [Am-59] Defines clearly that no plant structures are partially seismic category I, but that some seismic II structures may be constructed within seismic I buildings.	Clarification
3.2.1	4	3.2-006-3.2.1	3.2-6 [Am-59] Provides the explanation that whenever seismic II structures are in the vicinity of essential equipment, they are designed so that the SSE will not cause them to fail so as to damage seismic I equipment or to injure personnel.	Clarification
3.2.1	4	17A-006-3.2.1-I	T17A-1 [Am-68] This change is to delete the reference to Note 13 in the "Remarks" section of the table. This note was originally used for the SQRT audit, and the information is now maintained in the Seismic Equipment Qualification Summary Packages (SEQSPs). This change is typical throughout sheets 1 through 40 of Table 17A-1.	Update
3.2.1	4	17A-076-3.2.1-I	T17A-1 [Am-68] (Sht. 42) Removes Note 13 as justified for Table 17A-1, Sheets 1 thru 40, "Update: ..delete the reference to Note 13.." (See evaluation number 17A-006-3.2.1-I)	Update
3.2.1	4	17A-088-3.2.1	T17A-1 [Am-55] (Sheet 46) Adds a note for use with those components that have been qualified for seismic duty by analysis.	Addition
3.2.1	4	17A-091-3.2.1	T17A-1 [Am-66] (Sheet 47) Adds Note 65 to clarify that instruments connected to HVAC ducts are not ASME III, but they are supported to Seismic I if applicable.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.2.2	2	3.2-018-3.2.2	T3.2-1 [Am-56] (Sheet 3) The descriptive paragraph following reference 3 in Note 2 is added.	Addition
3.2.2	2	17A-015-3.2.2	T17A-1 [Am-68] (Sht. 6) These changes to the Valve Isolation Tanks/Expansion Joints are being made to revise the safety class from "NNS" to "N/A." These changes are necessary to show that the tanks/joints have been declassified on the system flow diagrams such that they are no longer part of the containment pressure boundary and therefore, are no longer within the scope of ANSI N18.2. The use of "N/A" for the safety class is more appropriate with seismic Category I than "NNS."	Revision
3.2.2	2	17A-020-3.2.2	T17A-1 [Am-68] (Sheet 9) The Electric hydrogen recombiner line entry for "Combustible Gas Control System" is being revised because this is not a pressure boundary component. This change to the electrical criteria (Class 1E) is appropriate rather than the ANSI N18.2 criteria. This change is consistent with appropriate specifications and the technical basis is unaffected.	Correction
3.2.2	2	17A-025-3.2.2	T17A-1 [Am-68] (Sht. 11) This change to the Traveling screens safety class from "3" to "N/A" is because these screens are a non-fluid pressure boundary component, therefore, safety Class 3 is not applicable. The " N/A" designation implies a structural item.	Correction
3.2.2	2	17A-036-3.2.2	T17A-1 [Am-68] (Sht. 19) This change corrects the "Seismic Category" information for line entry Gas decay tank drain pump in the Gaseous Waste Processing System (GWPS). This information was incorrectly shown but now is consistent with specifications.	Correction
3.2.2	2	17A-039-3.2.2-J	T17A-1 [Am-68] (Shts. 21, 23 thru 26) Changes to the Containment Ventilation Systems (HVAC) are as follows: 1) Various safety class and seismic category HVAC line entries are being changed from "3/NNS...I" to "3/NNS... I/II" respectively, because the NNS portions of the components/systems can not be Seismic Category I per the classification schemes at CPSES. Therefore, Category II is the appropriate distinction to make. 2) Similarly, changes from "NNS...I" or "NNS... I/II" to "NNS ... II" is because of classification schemes. 3) A change to a large portion of the Safety Class 3, Seismic Category I HVAC systems in the Fuel Handling, Safeguards and Auxiliary Buildings have been declassified to "NNS ... II". The ductwork has been segregated into portions of safety-related and non safety-related	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			as indicated in the specifications. 4) Changes in reference to Note 45 is because of a reanalysis performed in accordance with the CPSES 10CFR50.55(e) program. Therefore, reference to Note 45 is no longer required. Note: These changes to the HVAC are consistent with appropriate specifications and the technical basis is unaffected. They include changes from Am-56 to the FSAR.	
3.2.2	2	17A-040-3.2.2	T17A-1 [Am-60] (Sheet 22) Revises the table to clarify the material to be ASTM. The Control Room Air-Conditioning System refrigerant piping and tubes (ASTM B88) are produced to national standards in an industry in which quality is assured by the pressures of competition.	Correction
3.2.2	2	17A-060-3.2.2	T17A-1 [Am-66] (Sht. 35) Changes the applicable code or standard to reflect the as-built design basis for fire stops and fire seals. The technical basis is unaffected.	Correction
3.2.2	2	17A-078-3.2.2	T17A-1 [Am-55] (Sht. 44) Deletes references to ANSI N101.4 and inserts ANSI N101.2, N512 and the coating manufacturers' recommendations for guidance in the development of construction and maintenance procedures.	Revision
3.2.2	3	3.2-014-3.2.2-B	T3.2-1 [Am-56] (Sheet 1) Reference to NC-3200 is added to Safety Class 2 pressure vessels.	Addition
3.2.2	3	3.2-015-3.2.2-B	T3.2-1 [Am-68] (Sheet 1) This change adds "NC-3200" quality standards to the Safety Class 2 (Notes 2 and 5) requirements for Pressure Vessels. Section NC-3200 was used for the Safety Injection Accumulator Tanks.	Addition
3.2.2	3	3.2-017-3.2.2	T3.2-1 [Am-56] (Sheet 3) The capability to use later codes under Note 1 is restricted to compliance with 10CFR50.55a.	Addition
3.2.2	3	3.2-019-3.2.2-B	T3.2-1 [Am-56] (Sheet 3) The optional use of later codes is added to Notes 3 and 4.	Addition
3.2.2	3	3.2-021-3.2.2-B	T3.2-1 [Am-64] (sheet 3) Note 2 did not allow for ASME Code Class 2 and 3 components purchased prior to the issuance of the 1974 version of the Code. There are Class 2 and 3 components at CPSES which were purchased prior to the issuance of the 1974 Code. These components meet the requirement of the Code in effect at the time of purchase. Note 2 is revised to incorporate this information.	Revision
3.2.2	3	3.2-022-3.2.2	T3.2-3 [Am-66] (Sheet 5) Adds Uninterruptible Power Supply A/C Systems to update the list of flow diagrams.	Addition

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.2.2	3	17A-008-3.2.2	T17A-1 [Am-68] (Sht. 1) This change added line item "Piping and valves" to the list of quality assured structures, system and components for the Reactor Coolant System (RCS) which was inadvertently omitted from the table.	Addition
3.2.2	3	17A-009-3.2.2	T17A-1 [Am-68] (Sht 2) This change adds line items "Pump Shaft" and "Pump Impeller" to the list of quality assured structures systems and components for the Reactor Coolant Pump Motor (RCS), which were inadvertently not previously included.	Addition
3.2.2	3	17A-010-3.2.2	T17A-1 [Am-68] (Sht. 3) This changes the safety class, applicable code or standard and code class to reflect the as-built design basis for the "Motor-air coolers." This change is consistent with appropriate specifications and the technical basis is unaffected.	Correction
3.2.2	3	17A-013-3.2.2	T17A-1 [Am-68] (Sheet 4) Adds line item "Positive Displacement Pump Discharge Dampener" to the list of quality assured structures, systems and components for the CVCS which was inadvertently omitted from the table.	Addition
3.2.2	3	17A-016-3.2.2	T17A-1 [Am-65] (Sheet 8) This change updates Table 17A-1 to reflect the applicable code "ASME III" and code class "2" for the Containment Spray chemical eductor as indicated in specification 2323-MS-35.	Revision
3.2.2	3	17A-021-3.2.2	T17A-1 [Am-66] (Sheet 10) Adds Air Accumulator Tank to air-operated control valve.	Revision
3.2.2	3	17A-022-3.2.2	T17A-1 [Am-66] (Sheet 10) A revision to reflect the replacement of expansion joints with a hard pipe based on stress analysis results.	Revision
3.2.2	3	17A-034-3.2.2	T17A-1 [Am-59] (Sht. 16) Upgrades the Waste Holdup Tank, the Waste Evaporator Feed Pump and the Waste Evaporator Feed Filter from NNS to Safety Class 3, ASME Section III.	Revision
3.2.2	3	17A-042-3.2.2	T17A-1 [Am-66](Sht. 25) Adds the class 1E battery room unit heaters.	Revision
3.2.2	3	17A-044-3.2.2	T17A-1 [Am-66] Adds safety related dampers, duct work, supports and emergency fans for Boron injection surge tank room (Room-100).	Revision
3.2.2	3	17A-052-3.2.2	T17A-1 [Am-68] (Sheet 31) Changes the containment locks and hatches to indicate the correct safety class, (from "N/A" to "2"), since these	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			accessways are covered by ANSI N18.2.	
3.2.2	3	17A-058-3.2.2	T17A-1 [Am-66] (Sheet 35) Upgrades the Control Room Ventilation Monitors from "NNS" to "1E" and from "Mfrs Stds" to "IEEE-323" based on the recommendation from SWEC, to comply to GDC-19 requirements. This change provides enhancement to plant operability.	Revision
3.2.2	3	17A-061-3.2.2-K	T17A-1 [Am-66] (Sheet 35) Changes the applicable code or standard to reflect the as-built design basis of fire rated coating systems.	Correction
3.2.2	3	17A-062-3.2.2	T17A-1 [Am-66] (Sht. 35) Adds fire rated barriers to list of fire protection system components with QA applicability to reflect as-built design basis.	Addition
3.2.2	3	17A-064-3.2.2	T17A-1 [Am-66] (Sht. 36) Reflects the existence of higher grade seismic Category I thermowells for ASME III Safety Class 2 and 3 piping at CPSES. This change reflects the as built plant design.	Revision
3.2.2	3	17A-066-3.2.2	T17A-1 [Am-64] (Sheet 36) Change reflects addition of qualified Post-Accident Neutron Flux Monitoring Instrumentation.	Revision
3.2.2	3	17A-068-3.2.2	T17A-1 [Am-66] (Sht. 37) Changes the Nuclear Instrument Racks (NIS), the Hot Shut Down Panel and Process Instrumentation Protection Racks from "N/A" Safety Class and IEEE-144 to "1E" and IEEE-323 to be consistent with procurement specification.	Correction
3.2.2	3	17A-069-3.2.2	T17A-1 [Am-66] (Sheet 38) Adds the Shutdown Transfer Panel.	Addition
3.2.2	3	17A-086-3.2.2	T17A-1 [Am-66] (Sheet 46) Adds QA requirements to note 58 for future activities associated with the underground fire protection water supply piping serving safety related areas of the plant, to ensure consistency with CPSES Fire Protection commitments.	Correction
3.2.2	3	17A-087-3.2.2-K	T17A-1 [Am-66] (Sheet 46) Deletes Note 60 which excludes fire rated coating systems in the turbine building. Section 9.5.1.5 addresses fire protection design requirements throughout the plant. Section 9.5.1.5.3 addresses fire retardant treatment for wood in the Turbine Building.	Correction
3.2.2	4	3.2-007-3.2.2	3.2-9 [Am-66] Added "..as defined in ANSI N18.2[4]" to clarify the specific reference.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.2.2	4	3.2-009-3.2.2	3.2-11 and 3.2-12 [Am-66] The section for Non-Nuclear Safety (NNS) has been editorially updated to include a discussion on Class 5 and Class G designations and their relationship to Seismic Category II is described. This input reflects the current content of the latest revisions of Specifications MS-100 and MS-200.	Clarification
3.2.2	4	3.2-010-3.2.2	3.2-11 and 3.2-12 [Am-66] The heading "Other Classifications" was deleted because Class 5, Class G and RWMS are not safety "classifications." Rather, RWMS is more closely counted as a subsection of 3.2.2, system Quality Group Classification.	Clarification
3.2.2	4	3.2-011-3.2.2	3.2-12 [Am-66] A section of the RWMS descriptions is being relocated as indicated within the section.	Editorial
3.2.2	4	3.2-012-3.2.2	T3.2-1 [Am-66] Table is reissued in computerized format.	Editorial
3.2.2	4	3.2-013-3.2.2	T3.2-1 [Am-56] (Sheet 1) The location of the references to the notes is to clarify that they are associated with all items in the column.	Addition
3.2.2	4	3.2-016-3.2.2	T3.2-1 [Am-56] (Sheet 1) Reference to Article MF is corrected to NF under Class 1 supports.	Editorial
3.2.2	4	3.2-020-3.2.2	T3.2-1 [Am-56] (Sheet 3) Note 5 is added.	Clarification
3.2.2	4	3.2-023-3.2.2	005-4 [Am-59] Replaces "Quality Group A" components with "Safety Class 1" components.	Update
3.2.2	4	17A-007-3.2.2-G	T17A-1 [Am-68] (Sht. 1) The Tubing and Supports line entry is being revised to reflect the applicable code or standard "ASME III" and code class "3". This change is editorial in nature, since the accompanying Note 41 explains that the supports are not built to Section NF of the ASME Code.	Correction
3.2.2	4	17A-011-3.2.2	T17A-1 [Am-68] (Sht. 3) This change corrects the "Applicable Code or Standard" and "Code Class" information for line item Lube oil piping in the RCS. This information was incorrectly shown but now is consistent with specifications.	Correction
3.2.2	4	17A-012-3.2.2-F	T17A-1 [Am-68] (Sheet 3) This change from "Supports for Class 5 piping" to "Class 5 piping and supports", is being done to include Class 5 piping and supports	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			which can be Seismic Category II or None. This change is provided as clarification to coincide with the revision to Note 44, which explains the methodology to determine which seismic category applies for Class 5 piping and its supports. This methodology satisfies the requirements for Reg. Guide 1.29, position C.2.	
3.2.2	4	17A-014-3.2.2-F	T17A-1 [Am-68] (Shts. 5 and 6) Class 5 piping and supports. Same evaluation as 17A-012-3.2.2-F.	Clarification
3.2.2	4	17A-017-3.2.2-F	T17A-1 [Am-68] (Sht. 8) This change from "Piping and valves (class 5), and seismic category "II" to "Valves," and seismic category "None" is to clarify that the term "Class 5" only applies to piping, not valves and equipment. The valves are not seismic Category II and QA Note C applies in lieu of Note B which applies to piping.	Clarification
3.2.2	4	17A-018-3.2.2-F	T17A-1 [Am-68] (Shts. 8 and 9) Class 5 piping and supports. Same evaluation as 17A-012-3.2.2-F.	Clarification
3.2.2	4	17A-019-3.2.2-H	T17A-1 [Am-68] (Sht. 9) Electrical penetrations satisfy both containment pressure boundary and electrical (Class 1E) criteria. Therefore, the two criteria aspects are being reflected in the appropriate sections of the table (see Table 17A-1, Sheet 33). Add "(Mechanical and electrical)" to the Penetration assemblies line entry.	Clarification
3.2.2	4	17A-023-3.2.2	T17A-1 [Am-68] (Sht. 10) This is a change to provide clarification to show that only the Piping and valves (Rad. Monitor Sample Lines) for the "safeguards loops" are applicable for this line entry. Changed from "(Rad. Monitor Sample lines)" to "(Rad. Monitor Sample lines safeguard loops)."	Clarification
3.2.2	4	17A-024-3.2.2-F	T17A-1 [Am-68] (Sht. 10) Class 5 piping and supports. Same evaluation as 17A-012-3.2.2-F.	Clarification
3.2.2	4	17A-026-3.2.2-F	T17A-1 [Am-68] (Sht. 11) Class 5 piping and supports. Same evaluation as 17A-012-3.2.2-F.	Clarification
3.2.2	4	17A-027-3.2.2-G	T17A-1 [Am-68] (Sht. 11) The tubing and supports line entry is being revised to reflect the applicable code as described for evaluation number 17A-007-3.2.2-G.	Correction
3.2.2	4	17A-028-3.2.2	T17A-1 [Am-68] (Sht. 12) There are no RWMS piping and valves (Piping and valves (Class 5))" in the Main Steam System. Therefore, this line entry has been deleted. This change is consistent with appropriate	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			specification and the technical basis is unaffected.	
3.2.2	4	17A-029-3.2.2-F	T17A-1 [Am-68] (Sht. 12) Class 5 piping and supports. Same evaluation as 17A-012-3.2.2-F.	Clarification
3.2.2	4	17A-030-3.2.2	T17A-1 [Am-68] (Sht. 12) This change is provided to designate the specific Auxiliary Feedwater System (AFW) valves applicable to this line entry. Change from "(AFW Control Valves)" to "(AFW Flow and Miniflow Control Valves)" for the Air accumulators.	Clarification
3.2.2	4	17A-031-3.2.2-G	T17A-1 [Am-68] (Sht. 12) The tubing and supports line entry is being revised to reflect the applicable code as described for evaluation number 17A-007-3.2.2-G.	Correction
3.2.2	4	17A-032-3.2.2-F	T17A-1 [Am-68] (Sheets 13, 15 and 19) Class 5 pipings and supports. Same evaluation as 17A-012-3.2.2-F.	Clarification
3.2.2	4	17A-033-3.2.2	T17A-1 [Am-66] (Sht. 14) This table is being corrected by deleting the incorrect "Expansion Joints (Nuclear Types II and III)" information indicated on Sheet 14, Item 16. The correct information is covered on Sheet 26, Item 33 which is consistent with current specifications.	Correction
3.2.2	4	17A-035-3.2.2-F	T17A-1 [Am-68] (Sht. 19) Separates Class 5 pipe from the "valve" line item. The discussion for this item is on evaluation sheet number 17A-017-3.2.2-F.	Clarification
3.2.2	4	17A-037-3.2.2-F	T17A-1 [Am-68] (Sheet 20) Separates Class 5 pipe from the "valve" line item. The discussion for this item is on evaluation sheet number 17A-017-3.2.2-F.	Clarification
3.2.2	4	17A-038-3.2.2-F	T17A-1 [Am-68] (Shts. 20 and 21) Class 5 piping and supports. Same evaluation as 17A-012-3.2.2-F.	Clarification
3.2.2	4	17A-041-3.2.2	T17A-1 [Am-56] (Sheet 23) Adds "fans" to "supply units under the electrical area HVAC for the Safeguards Buildings.	Clarification
3.2.2	4	17A-043-3.2.2	T17A-1 [Am-56] Changes first line item under Primary Plant Ventilation System Supply from "Housing and Fans" to "Units/Fans".	Clarification
3.2.2	4	17A-045-3.2.2-F	T17A-1 [Am-68](Sht. 26) Class 5 piping and supports. Same evaluation as 17A-012-3.2.2-F.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.2.2	4	17A-047-3.2.2	T17A-1 [Am-66] (Sht. 29) An update is provided to Item 34, Containment Polar Crane, to provide the FSAR cross-references.	Correction
3.2.2	4	17A-048-3.2.2	T17A-1 [Am-68] (Sheet 29) Provides a change to delete "New Fuel Elevator Winch" from this table because QA requirements are not applicable for this item (not identified as safety-related).	Correction
3.2.2	4	17A-049-3.2.2	T17A-1 [Am-66] (Sht. 30) An update is provided to Item 35, Fuel Building Overhead Crane, to provide the FSAR cross-references.	Correction
3.2.2	4	17A-054-3.2.2-H	T17A-1 [Am-68] (Sht. 33) Electrical penetrations satisfy both containment pressure boundary and electrical (Class 1E) criteria. Therefore, the two criteria aspects are being reflected in the appropriate sections of the table (see evaluation number 17A-019-3.2.2-H).	Clarification
3.2.2	4	17A-055-3.2.2	T17A-1 [Am-66] (Shts. 34 and 35) The radiation monitors listed are safety related however, there is no applicable code or standard related to these monitors. The change from "IEEE-323" to "Mfrs Stds" is consistent with Note 56 and Regulatory Guide 1.97.	Clarification
3.2.2	4	17A-056-3.2.2	T17A-1 [Am-66] (Sht. 35) The CCW, Waste Gas and Liquid Waste Effluent monitors are safety related but have no Safety Class. Therefore, the change from "NNS" to "N/A" has no significance in relation to the monitors because NNS means Nuclear Non-Safety.	Clarification
3.2.2	4	17A-057-3.2.2	T17A-1 [Am-66] (Sht. 35) Deletes the S. G. Blowdown, Condenser Offgas, Ventilation Duct, Turbine Building Drains, and Failed Fuel Monitors because they are not safety related (QA) components and are just part of the system. No Safety Class, Code or Standard, Code Class, Seismic Category and Quality Assurance requirements are applicable.	Correction
3.2.2	4	17A-059-3.2.2	T17A-1 [Am-55] (Sht. 35) Changes the Fire Suppression Systems Safety Class from N/A to NNS, and adds a reference to Note D. The Fire Doors also have Note D added.	Clarification
3.2.2	4	17A-063-3.2.2-K	T17A-1 [Am-66] (Sheet 35) Deletes note 60 the exclusion of the turbine building fire rated coating systems is adequately addressed in Section 17.2.4.	Correction
3.2.2	4	17A-065-3.2.2-F	T17A-1 [Am-68] (Shts. 35, 36, 38 and 39) Class 5 piping and supports. Same as evaluation number 17A-012-3.2.2-F.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.2.2	4	17A-067-3.2.2	T17A-1 [Am-66] (Sht. 37) Added note 65 to the I & C Impulse Tubing, Fittings, Valves and Supports entry to clarify that this entry only applies to instruments connected to HVAC Ducts.	Clarification
3.2.2	4	17A-072-3.2.2-F	T17A-1 [Am-68] (Sheet 39) Separates Class 5 pipe from the "Valves" line item. The discussion for this item is on evaluation sheet number 17A-017-3.2.2-F.	Clarification
3.2.2	4	17A-073-3.2.2	T17A-1 [Am-68] (Sht. 40) Pipe whip restraints do not come under the scope of ANSI N18.2, therefore, the safety class should indicate "N/A" which is an editorial improvement over "-".	Clarification
3.2.2	4	17A-074-3.2.2	T17A-1 [Am-68] (Sheet 40) Corrects editorial omission for RM-21 Report Processor by including the appropriate Operations Quality Assurance Note, "C".	Editorial
3.2.2	4	17A-075-3.2.2	T17A-1 [Am-68] (Sht. 41) Changes Note 7 to include safety class applicability to containment pressure boundary (civil) components and is in accordance with ANSI N18.2.	Clarification
3.2.2	4	17A-077-3.2.2	T17A-1 [Am-68] (Sht. 43) This change is an editorial correction in nature to Note 26 by clarifying that QA requirements are generic to all specifications, rather than one in particular.	Clarification
3.2.2	4	17A-079-3.2.2	T17A-1 [Am-66] (Sheets 44 and 45) Corrected the spelling of "Party" from "Part". Clarifies Note 49 to say that conduit is not bought as raw material, therefore, the quality is not verified by sampling and testing. However, the quality of conduit should be certified by vendor (industry practice) and receipt inspection, and conduit fittings should be certified by vendor and/or receipt inspection. Note 49 as previously written could have been misinterpreted so it is being changed to provide a clear understanding of these activities. If this change is read literally it may appear to indicate a reduction in commitment. However, this change merely corrects a poorly written note to provide a clearer description of the procedures, instructions and practices implemented and approved at CPSES.	Clarification
3.2.2	4	17A-080-3.2.2-F	T17A-1 [Am-66] (Sheet 45) Class 5 piping and supports. Same as evaluation on sheet 17A-012-3.2.2-F.	Addition

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.2.2	4	17A-081-3.2.2-J	T17A-1 [Am-68] (Sheet 45) Deletes Note 45 in accordance with Justification for Table 17A-1, Sheets 21, 23 thru 26, "Clarification: Changes to the HVAC, see change #4)." (See evaluation number 17A-039-3.2.2-J.)	Clarification
3.2.2	4	17A-085-3.2.2	T17A-1 [Am-68] (Sheet 46) Clarifies that components referencing note 56 require the application of IEEE-323 and associated QA. Deletes a final phrase limiting the applicable channels to those radiation monitors which are Category 2. This is redundant; full information is already give in FSAR Section 7.5.	Clarification
3.2.2	4	17A-092-3.2.2	T17A-2 [Am-66] Changes to the table are as follows: 1) Items that are safety Class 3 and not seismic Category I (which could be either II or None) are not safety-related. This change adds a separate entry for this safety class designation. 2) An item cannot be "NNS" and "Seismic Category I" because this is a conflict for fluid system components. Therefore, within the changes to Table 17A-1, either the "NNS" was changed to " N/A", or "Seismic Category I" became "II" or "None" for consistency. The "N/A ... Category I" combination can apply to both civil or electrical items.	Clarification
3.2.2	4	17A-095-3.2.2	421-19 [Am-68] The subject portion of the first sentence was changed from "Table 17A-1..." to "The plant Q-list (Table 17A- 1)..." to more directly answer the question. This change was requested (QA comment) during the sign-off reviews for Amendment 66 but was inadvertently omitted.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.3	4	3.3-001-3.3	Sec. 3.3 Reissue with page numbering and editorial corrections (typographical errors) incorporated.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.3.1	3	3.3-002-3.3.1	3.3-1 [Am-66] This change adds a gust factor for all seismic Category I yard tanks. The gust factor for seismic Category I yard tanks has changed from "1.1." to "1.3". ASCE Paper 3269 requires higher gust factor for smaller structures.	Revision
3.3.1	3	3.3-003-3.3.1	3.3-2 [Am-55] The design wind force upon end walls of a rectangular structure is increased from 0.7 q to 0.8 q negative pressure.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.3.2	2	3.3-006-3.3.2-C	3.3-4 [Am-55] Fire rating for tornado dampers is not required and provisions to lock tornado dampers closed are removed. Where appropriate, the design now places fire dampers in series.	Revision
3.3.2	2	3.3-008-3.3.2	3.3-5 [Am-55] Removes reference to "fire-rated tornado dampers" and clarifies that where tornado dampers separate fire areas they are placed in series with fire dampers.	Revision
3.3.2	2	3.3-011-3.3.2	3.3-5 [Am-55] Removes door T-51 from those specially modified to vent the cable spreading rooms. Adequate vent area is provided by doors E-23, E-24 and E-25.	Revision
3.3.2	2	3.3-013-3.3.2-C	3.3-6 [Am-55] The wording in both of the above-mentioned sections is changed to clarify that tornado dampers are not fire rated. As noted in the comment on page 3.3-5, the design provides fire dampers in series with tornado dampers where necessary.	Revision
3.3.2	2	3.3-014-3.3.2	3.3-6 [Am-55] The design for hollow metal doors to have arm holders is changed. The door is designed to blow open if necessary when subjected to tornado induced loading. Reference to fire rating is removed.	Revision
3.3.2	2	3.3-016-3.3.2	3.3-11 [Am-68] Changes reference 2 to a later version which incorporates code addendum.	Correction
3.3.2	2	3.3-018-3.3.2	T3.3-1 [Am-55] The listing of door and their positions for tornado venting is brough up to date and consistent with design considerations as described in the text.	Update
3.3.2	2	3.3-023-3.3.2	T3.3-1 [Am-66](Sht. 3) Deletes door S-24A from Table 3.3-1. Doors S-24 and S-24A are in the normal access route from the hot lab to the primary side of the plant. Currently, these two sets of doors are located such that S-24A cannot open completely due to the interference from door S-24. Because door S-24 performs the same tornado venting scheme functions as door S-24A, the removal of door S-24A will not degrade CPSES's ability to withstand tornado wind loadings.	Revision
3.3.2	2	3.3-026-3.3.2	T3.3-1 [illegible] Adds doors S-11, S-11X, S-12X, S-37, and S-37X to the table.	Addition
3.3.2	3	3.3-007-3.3.2	3.3-4 [Am-55] Removes indication that tornado blowout panels are hinged. The design has been modified.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.3.2	3	3.3-015-3.3.2	3.3-7 [Am-66] A change to indicate that all seismic Category I structures are to have sufficient capacity to withstand the 360 mph tornado wind velocity uniformly applied. This change is in response to question Q130.1.	Revision
3.3.2	3	3.3-019-3.3.2	T3.3-1 [Am-66](Sht. 1) Adds door F-4Fx to table. Fire hazard analysis requires additional 3 hour rated door in fuel building. Tornado design assumption requires this door to be in open position during normal plant operation. The door is designed to close during a fire.	Correction
3.3.2	3	3.3-021-3.3.2	T3.3-1 Am-66](Shts. 1 thru 4) Deletes doors E-3, S-10, S-23, S-28B, S-26, S-36A, A- 2C, A-21, S-30A, S-31, S-32, S-34 and S1-12. These doors were required to be open for tornado venting thus their removal will not affect tornado venting.	Revision
3.3.2	3	3.3-022-3.3.2	T3.3-1 [Am-66](Sht 2) Tornado design requires these doors to be in open position during normal plant operation.	Revision
3.3.2	3	3.3-025-3.3.2	T3.3-1 [Am-68] (sheet 3) Deletes door S-33 from table. This door was required to be open therefore its removal will not affect tornado venting.	Revision
3.3.2	3	3.3-027-3.3.2	T3.3-1 [Am-68](Sheet 4) Deletes section of table regarding the Safeguards Building-Unit 1 and the Safeguards Building-Unit 2. The doors affecting tornado venting for both buildings are now listed under the section titled "Safeguards Buildings-Units 1 & 2." (see evaluation under no. 3.3-026-3.3.2)	Revision
3.3.2	4	3.3-004-3.3.2-D	3.3-4 [Am-68] Changes the word "before" to "when" in describing the differential pressure required to partially blowout door F-4E.	Correction
3.3.2	4	3.3-005-3.3.2	3.3-4 [Am-55] Clarifies that tornado pressure relief dampers described here are for exterior walls only.	Clarification
3.3.2	4	3.3-009-3.3.2	3.3-4 [Am-68] Changes the article "he" to "a" in several places to correctly modify the words they designate.	Correction
3.3.2	4	3.3-010-3.3.2-D	3.3-5 [Am-68] Corrects identification of roll-up door from "E-3" to "E-3A". Changes to word "before" to "when" in describing the differential	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			pressure required to partially blowout door E-3A.	
3.3.2	4	3.3-012-3.3.2	3.3-6 [Am-55] This page in two places describes tornado dampers in interior walls. This is clarified in the section titles.	Clarification
3.3.2	4	3.3-017-3.3.2	T3.3-1 [Am-66] This table is being reissued in the computerized format.	Editorial
3.3.2	4	3.3-020-3.3.2	T3.3-1 [Am-68] Changes door "E-208" to "E-20B."	Editorial
3.3.2	4	3.3-024-3.3.2	T3.3-1 [Am-68] (sheet 3) Adds note to table clarifying the applicability of the door numbers and positions to both units.	Additior

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.5	4	3.5-001-3.5	Sec. 3.5 [Am-66] This section is being reissued in the computerized format.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.5.2	1	3.5-002-3.5.2-E	3.5-22 [Am-60] Class 1E appurtenances to the Feedwater Control Valves and their associated bypass valves are added to the list of safety-related components not contained within a concrete structure.	Correction
3.5.2	1	3.5-003-3.5.2-E	3.5-23 [Am-60] Provides a paragraph to explain that while the Class 1E appurtenances listed on page 3.5-22 are not protected from tornado missiles, credit is taken for the valves only for Feedwater Line Breaks and Main Steam Line Breaks inside containment. These pipe ruptures are not postulated to occur simultaneously with a tornado.	Addition

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.5.3	3	3.5-004-3.5.3	3.5-27 [Am-66] Defines ductility criteria for steel columns with a slenderness ratio greater than 70. The ductility ratio for steel columns with a slenderness ratio greater than 20 needs to be defined to determine the overall response of structural barriers to missile impact. This change meets the intent of Appendix A of the Standard Review Plan Section 3.5.3.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.6	2	3.6-007-3.6-G	3.6B-18 [Am-68] Deletes portions of the text previously requiring the postulation of arbitrary breaks and rearranges the remaining paragraphs. Section 3.6 of SSER 12 indicates the elimination of arbitrary intermediate breaks for CPSES under review. However, the deletion of this requirement was approved in Generic Letter 87-11 and specifically for CPSES in an NRC letter dated October 13, 1987.	Revision
3.6	2	3.6-016-3.6	3.6B-31 [Am-68] The PIPERUP code is corrected to be modeled using a bilinear stiffness curve instead of the previously stated trilinear stiffness curve. As can be seen from Figure 3.6B-7, the "perfectly plastic" region of the stiffness curve is the constant stress region. It is not useful to consider this region as a separate linear region and this stiffness curve is more correctly considered to be bilinear.	Correction
3.6	2	3.6-022-3.6-G	3.6B-46 [Am-68] Deletes the word "two" with respect to intermediate break postulation since arbitrary intermediate breaks are no longer considered.	Revision
3.6	2	3.6-023-3.6-G	3.6B-50 [Am-68] Deletes the word "two" with respect to intermediate break postulation since arbitrary intermediate breaks are no longer considered.	Revision
3.6	2	3.6-024-3.6-G	3.6B-54 [Am-68] Deletes the word "two" with respect to intermediate break postulation since arbitrary intermediate breaks are no longer considered.	Revision
3.6	2	3.6-025-3.6-G	3.6B-59 [Am-68] Deletes the word "two" with respect to intermediate break postulation since arbitrary intermediate breaks are no longer considered.	Revision
3.6	2	3.6-031-3.6-J	T3.6B-1 [Am-66] Adds note 3 reference to table.	Addition
3.6	2	3.6-036-3.6-J	T3.6B-1 [Am-66](Sht. 34) Revises the description of Note 3 on Sht. 34 to require high energy consideration during emergency conditions only. Since the lines contain insufficient stored energy to warrant HELB consideration during normal plant operating conditions.	Revision
3.6	2	3.6-043-3.6-G	210-1 thru 14 [Am-60] Incorporates responses to Questions 210.01 through 210.10 previously submitted to the NRC concerning Arbitrary Intermediate Break elimination.	Update
3.6	2	3.6-044-3.6-G	210-13 [Am-66] Revises response to Q210.9 to delete the requirement to supply additional information related to Arbitrary Intermediate Breaks.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			Generic Letter 87-11 eliminates the need to postulate these breaks.	
3.6	2	3.6-045-3.6-C	210-14 [Am-66] Revises response to Q210.10 per Generic Letter 87-11.	Revision
3.6	3	3.6-002-3.6	3.6B-4 [Am-68] Deletes the words "nearest pipe whip restraint" and replaces it with "location determined by calculation". Plastic hinge locations are determined by calculations.	Revision
3.6	3	3.6-006-3.6	3.6B-18 [Am-68] Deletes reference to selection of breaks at intermediate locations based on potential high stress points such as pipe fittings, welded attachments and valves. This was considered to be one of two acceptable methods for choosing intermediate break locations. The second method, the application of the sum of equations (9) and (10) in paragraph NC-3652 of the ASME Code, Section III, is now used for the determination of all intermediate break locations for class 2 and 3 piping.	Revision
3.6	3	3.6-011-3.6-F	3.6B-29 [Am-68] Replaces "RELAP-3" with "RELAP-5". Reflects the use of the improved version of this computer code.	Revision
3.6	3	3.6-012-3.6	3.6B-30 [Am-68] Replaces computer program "PLOTR" with "CALPLOTF" for plotting of break force time-history plots.	Revision
3.6	3	3.6-013-3.6-F	3.6B-30 [Am-68] Replaces "RELAP-3" with "RELAP-5". Reflects the use of the improved version of this computer code.	Revision
3.6	3	3.6-015-3.6-H	3.6B-31 [Am-68] Adds computer codes SHPLAST 2267 and ABAQUS to the computer codes that may be used for determination of piping dynamic responses. These codes are modeled using multilinear stiffness curves. Previously only PIPERUP, which is modeled with a bilinear stiffness curve was used. The application of the multilinear modeled computer codes permits more realistic modeling of the various plant piping configurations.	Addition
3.6	3	3.6-019-3.6	3.6B-39 [Am-68] Adds reference to the ASME Code for determination of minimum ultimate uniform stress.	Revision
3.6	3	3.6-026-3.6-F	3.6B-69 [Am-68] Provides the reference for the RELAP-5 computer code.	Revision
3.6	3	3.6-028-3.6-H	3.6B-71 [Am-68] Provides references for the CALPLOTF, ABAQUS-ND and SHPLAST 2267 computer programs.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.6	4	3.6-001-3.6	3.6B-4 [Am-68] Deletes the words "in any possible direction" since the break location and the hinge location determine the direction of pipe movement.	Clarification
3.6	4	3.6-008-3.6	3.6B-19 [Am-68] Deletes the word "ranges".	Clarification
3.6	4	3.6-010-3.6-I	3.6B-29 [Am-68] Replaces the symbol for steady state thrust ct with the symbol kt. Also adds reference 22 for calculation methods used to determine the coefficient.	Addition
3.6	4	3.6-014-3.6	3.6B-31 [Am-68] Revises the word "in" to read "within".	Clarification
3.6	4	3.6-029-3.6-I	3.6B-71 [Am-68] References ANSI/ANS 58.2.	Addition

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.6.1	2	3.6-037-3.6.1-A	T3.6B-2 [Am-61] Note 3 added to define how the RC loop break locations are incorporated into the various analyses.	Addition
3.6.1	2	3.6-038-3.6.1-A	F3.6B-9 [Am-61] Note is added to sketch to define how break locations are incorporated into the various analyses.	Addition
3.6.1	3	3.6-009-3.6.1	3.6B-20 [Am-68] The text is revised to redefine Break Exclusion Area (BEA) inside containment. These requirements impact only the Safety Injection System (SIS) and the Chemical/Volume Control System (CVCS). The BEA requirements for outside containment have not been changed and meet the requirements of Branch Technical Position MEB 3-1 Section B.1.b. The BEA, for outside reactor containment, are shown on FSAR figures 3.6B-15 thru 18, 23, 25 thru 30, 42, 82, 85, 87 and 88.	Revision
3.6.1	3	3.6-032-3.6.1-L	T3.6B-1 [Am-61](Sheet 36) Adds note 30 to indicate that although RHR piping between two normally closed isolation valves is considered high energy, the postulated break is assumed to be on the RCS side of the valve nearest to the RCS. This is conservative since there is no continuing source of energy if a break is postulated between the isolation valves.	Update
3.6.1	3	3.6-040-3.6.1	F3.6B-50-1, 3.6B-50-2, 3.6B-51-1, 3.6B-51-2, 3.6B-52, 3.6B-53, 3.6B-54,3.6B-55,3.6B-70, 3.6B-72,3.6B-78 thr3.6B-81[Am-68] The listed "Stress Node Break Point and Restraint Location" figures are revised to be consistent with the revised definition of Break Exclusion Area piping plus revision in break location. Revised figures resulted in additional break locations and relocation of break locations in some cases.	Revision
3.6.1	3	3.6-041-3.6.1-L	F3.6B-64 [Am-61] Revises figure to delete the previous notation that indicated that the RHR pipe between the isolation valves was considered moderate energy piping. (See Table 3.6B-1)	Update
3.6.1	4	3.6-005-3.6.1	3.6B-17 [Am-61] Added a specific reference to denote that RC system high energy piping breaks were postulated per the ASME Code 1977 Editior through Summer of 1979. The previous version implied that these lines were 1974 Edition through Winter 1974.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-63)	Change Classification
3.6.2	2	3.6-039-3.6.2-M	F 3.6B-15 3.6B-16 thru 18 3.6B-23-1, 3.6B-23-2 3.6B-27 thru 30, 3.6B-42[Am-68] The revised figures provide the latest break locations postulated in accordance with the requirements of FSAR section 3.6B. Note that the revised figures omit stress tables previously provided. This analysis information is maintained by TU Electric in Systems Interaction Program "Claculation Books".	Revision
3.6.2	2	3.6-042-3.6.2-M	F3.6B-82-1, 3.6B-85, 3.6B-87-2, and 3.6B-88-2 [Am-68] The revised figures provide the latest break locations postulated in accordance with the requirements of FSAR section 3.6B. Note that the revised figures omit stress tables previously provided. This analysis information is maintained by TU Electric in Systems Interaction Program "Calculation Books."	Revision
3.6.2	2	3.6-046-3.6.2	010-66 [Am-66] The contents of R010.34 were discussed with the NRC during a meeting on November 12, 1987. The Standard Review Plan (SRP) requirement to analyze the jet impingement effects of a one square foot arbitrary break in superpipe areas is being deleted from the SRP. In place of this requirement is a cautionary note to avoid concentrating essential cables in these areas. Our response states that the essential cable concentration in these areas is low and therefore meets the intent of this cautionary note.	Addition
3.6.2	3	3.6-034-3.6.2	T3.6B-1 [Am-66](Sht. 5) Removes line 3-AF-1-26-2002-3 from table since this portion of piping is not energized during normal plant conditions as defined in FSAR Section 3.6B.2.1.5.	Correction
3.6.2	3	3.6-035-3.6.2	T3.6B-1 [Am-66](Shts. 5 and 11) This change adds two additional lines (6-AF-1- 88-2002-3 and 2-CS-1-165-2501R-2) to high energy line table based upon the definition of high energy lines provided in Section 3.6B.	Addition
3.6.2	4	1AB-8-3.6.2	1A(B)-19 [Am-66] Adds the word "except" to clarify the type of discussion in Section 3.6B.	Clarification
3.6.2	4	3.6-033-3.6.2	T3.6B-1 [Am-66](Sht. 5) Removes duplicated listing of line 6-AF-1-29-2002-3.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.7	4	3.7-057-3.7	3.7B-60a [Am-63] This page should have been deleted by a previous amendment but was not. This page deleted by this amendment.	Editorial
3.7	4	3.7-058-3.7	Section 3.7 [Am-66] This section is being reissued in the computerized format.	Editorial
3.7	4	3.7-059-3.7	3.7B(A)-1 [Am-61] References new Appendix 3B for additional computer codes.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.7.1	2	3.7-005-3.7.1-N	T3.7N-1 [Am-61] Note "b" added to allow use of Code Case N-411 for piping analyzed by the response spectrum method as approved by NRC letter of March 18, 1986.	Revision
3.7.1	2	3.7-007-3.7.1-Q	3.7B-2 [Am-68] Corrects the discussion by stating that the design floor spectra were developed from only one vertical and one horizontal artificial time history record not 5 as previously implied.	Correction
3.7.1	2	3.7-008-3.7.1	3.7B-3 [AM-68] Revises the text describing how the artificial time histories for the seismic analyses were validated. The artificial time history records meet the minimum acceptance criteria given by Table 3.7.1-1 in section 3.7.1 of the Standard Review Plan.	Correction
3.7.1	2	3.7-009-3.7.1-N	3.7B-4 [Am-61] Permits the use of Code Case N-411 damping values in lieu of R.G. 1.61 values. On a technical basis, some damping values from Code Case N-411 are lower and some are higher than R.G. 1.61 values. The N-411 damping, which was developed by the Pressure Vessel Research Committee (PVRC), represents an upgrading of nuclear plant qualification technology. This Code Case has been approved for general usage by the NRC in R.G. 1.84 Revision 24 and has been used by more than twenty nuclear plants. A request to use Code Case N-411 was submitted to the NRC by TUGCo letter TXX-4160 dated November 18, 1985 with additional justification provided in TXX-4651 dated December 17, 1985. It was approved for use at CPSES in NRC letter from V.S. Noonan to W.G. Counsil dated March 18, 1986. The conditions of approval require FSAR documentation of all stress problems using this Code Case. These stress problems will be identified in the FSAR upon the completion of the SWEC requalification effort.	Revision
3.7.1	4	3.7-006-3.7.1	3.7B-1 [Am-68] Provides a clearer description by deleting the superfluous information.	Clarification
3.7.1	4	3.7-010-3.7.1-N	3.7B-4 [Am-66] References the usage of ASME Code Case N-411 for the analysis of the primary system loop to determine seismic loads transmitted to the steam generator upper lateral and lower lateral restraints. The use of the Code Case N-411 damping values has been accepted for use on piping systems analyzed by the response spectrum method. (See evaluation under no. 3.7-009-3.7.1-N)	Correction
3.7.1	4	3.7-011-3.7.1	3.7B-5 [Am-66] Changes to page 3.7B-5 consist of corrections to reference the correct Table and reflecting that it is a table of "rock"	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			characteristics and not "soil" characteristics.	
3.7.1	4	3.7-012-3.7.1	3.7B-5 [Am-68] Deletes reference to FSAR sections 2.6 and 2.7 since they do not exist.	Correction
3.7.1	4	3.7-015-3.7.1	3.7B-11 [Am-68] Adds statement to indicate that FSAR section 3.7B.2.9 is the primary location which discusses parametric studies and spectra widening.	Clarification
3.7.1	4	3.7-028-3.7.1	3.7B-39 [Am-68] Deletes sentence regarding parametric variations and spectra widening as this is discussed previously in this section.	Correction
3.7.1	4	3.7-030-3.7.1	3.7B-40 [Am-68] Deletes subsection title as the following paragraphs is self explanatory.	Editorial
3.7.1-N	4	3.7-047-3.7.1-N	T3.7B-1 [Am] Changes reflect the use of ASME Code Case N411 (See evaluation under no. 3.7-009-3.7.1-N).	Correction
3.7.1	4	3.7-050-3.7.1-Q	F3.7B-2 to -6 [Am-68] Corrects the horizontal response spectra for 2%, 5%, 7%, 10% and 15% damping for the SSE. These figures are based on one horizontal artificial earthquake not 5 as previously implied in the FSAR. (See evaluation under no. 3.7-007-3.7.1-Q.	Correction
3.7.1	4	3.7-051-3.7.1-Q	F3.7B-8 to -12 [Am-68] Corrects the vertical response spectra for 2%, 5%, 7%, 10% and 15% damping for the SSE. These figures are based on one vertical artificial earthquake not 5 as previously implied in the FSAR. (See evaluation under no. 3.7-007-3.7.1-Q).	Correction
3.7.1	4	3.7-052-3.7.1-Q	F3.7B-13, 14, 15, 16 and 17 [Am-68] Deletes five figures and replaces with Figure 3.7B-14. Only one horizontal artificial acceleration time history record was used. (See evaluation no. 3.7-007-3.7.1-Q).	Correction
3.7.1	4	3.7-053-3.7.1-Q	F3.7B-18, 19, 20, 21 and 22 [Am-68] Deletes five figures and replaces with Figure 3.7B-19. Only one vertical artificial acceleration time history record was used. (See evaluation no. 3.7-007-3.7.1-Q).	Correction
3.7.1	4	3.7-055-3.7.1	Figures 3.7B-41 to -50 Deletes these figures since the interpolation procedure was not used at CPSES.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.7.2	2	3.7-013-3.7.2-P	3.7B-7 and 3.7B-8 [Am-68] Corrects the techniques used to generate the stiffness properties for the seismic Category I structure models. Standard structural hniques (not finite elements) were used for the Category I Tanks an and the Service Water Intake Structure models.	Correction
3.7.2	2	3.7-033-3.7.2	3.7B-44 [Am-68] Provides a clearer explanation of the enveloping techniques used at CPSES.	Correction
3.7.2	2	3.7-036-3.7.2	3.7B-49 and 3.7B-50 [Am-68] Provides an alternative method by which the overturning moment for a structure may be calculated. This alternate method is consistent with the discussion in FSAR section 3.7B.2.2.	Correction
3.7.2	2	3.7-054-3.7.2	F 3.7B-38 Revises figure to indicate the new structural model for the Service Water Intake Structure based on reanalysis performed as part of the design validation for CPSES. (See evaluation under no. 3.7-049-3.7.2)	Revision
3.7.2	3	3.7-020-3.7.2	3.7B-24 [Am-68] Adds the Category I Tanks to the list of structures which have mathematical models.	Correction
3.7.2	3	3.7-023-3.7.2-O	3.7B-26 [Am-68] Replaces the word "all the" with "representative" to reflect the fact that Category I Tanks are not included in the tables. It should be noted that the natural frequencies and modal participation factors have been determined for the Category I Tanks but have not been included in the tables at the end of this section.	Correction
3.7.2	3	3.7-025-3.7.2-O	3.7B-32 [Am-68] Replaces the word "the" with "representative" to reflect the fact that Category I Tanks are not included in the tables. It should be noted that the values of effective foundation masses and mass moments of inertia have been determined for the Category I Tanks but have not been included in the tables at the end of this section.	Correction
3.7.2	3	3.7-029-3.7.2	3.7B-39 [Am-68] Revises discussion for the development of the individual floor response spectra. The simplified text meets the intent of the Standard Review Plan section 3.7.2(II)5. The three components of earthquake motion are considered by using the "square root of the sum of the squares" method to predict the resulting response spectra at a particular location. Only two kinds of response	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			spectra were used, "refined response spectra" and response spectra at selected locations (for Westinghouse analysis).	
3.7.2	3	3.7-031-3.7.2	3.7B-41 [Am-68] Identifies that the mode spacing is evaluated based upon the frequency of the lower mode. This is consistent with implementation procedures and the SER, but was not previously identified in the FSAR in this discussion.	Addition
3.8.4	3	3.7-037-3.7.2	3.7B-50 [Am-68] Deletes discussion of foundation pressure calculations. This subject is addressed in FSAR Section 3.8.5 and does not belong in this section.	Revision
3.7.2	3	3.7-038-3.7.2	3.7B-54 [Am-61] Permits the use of the methodology described in NUREG/CR 1161 to account for modal contribution above cut-off frequency -- The current FSAR states that the number of modes chosen is adequate provided that either, (1) inclusion of additional modes does not result in more than a 10 percent increase in responses, or (2) based upon evaluation of the dynamic participation factors, all significant modes have been included. The NUREG methodology assures participation of high frequency seismic responses in the zero period acceleration (ZPA) region of the spectra. Both methods are technically acceptable, however, the NUREG/CR 1161 methodology is an improvement because it is more direct and efficient. This is a more conservative methodology than is currently in the FSAR.	Revision
3.7.2	3	3.7-046-3.7.2	3.7B-79 [Am-61] Reference (NUREG/CR-1161) is included to support the text added. (See evaluation no. 3.7-038-3.7.2).	Addition
3.7.2	4	3.7-014-3.7.2	3.7B-10 [Am-68] Deletes the word "smoothed" from the phrase "smoothed instructure response spectra." The enveloping technique was used for all spectra not only smoothed spectra.	Clarification
3.7.2	4	3.7-021-3.7.2	3.7B-24 [Am-68] Changes the word "buildings" to "structures."	Clarification
3.7.2	4	3.7-022-3.7.2	3.7B-25 [Am-68] Adds the word "circular" to address Category I Tanks.	Correction
3.7.2	4	3.7-024-3.7.2	3.7B-28 [Am-68] Clarifies the definition of the mass ratio Rm.	Clarification
3.7.2	4	3.7-026-3.7.2	3.7B-34 [Am-68] Deletes text which discusses the analysis of a structure when the mat cannot be considered rigid with respect to the foundation	Correction

SEB	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			medium. The next sentence states, "The analysis of all ... is based upon a rigid mat approach," therefore the discussion of a non-rigid mat approach is superfluous.	
3.7.2	4	3.7-027-3.7.2	3.7B-38 [Am-68] Deletes text which stated that the effect of embedment on rotational foundation rigidities for structures with shallow depth of embedment is neglected. The effect is negligible and thus need not be considered.	Correction
3.7.2	4	3.7-032-3.7.2	3.7B-43 [Am-68] Deletes superfluous information as the artificial ground spectra exceed the minimum acceptance criteria of the Standard Review Plan section 3.7.1 and are therefore conservative.	Clarification
3.7.2	4	3.7-034-3.7.2-P	3.7B-45 [Am-68] Corrects discussion of stiffness properties calculations. For the Service Water Intake Structure and the seismic Category I Tnaks, the stiffness properties are determined using standard structural techniques not the finite element technique. (See evaluation under 3.7-013-3.7.2-P)	Correction
3.7.2	4	3.7-035-3.7.2	3.7B-48 [Am-66] Corrects Typographical error by adding Subscript "ST" to "C" (Cst).	Editorial
3.7.2	4	3.7-048-3.7.2	T3.7B-2 [Am-68](Sheet 1) Changed to reflect the recalculated Category I Tank results based on reanalysis performed as part of the design validation for CPSES.	Correction
3.7.2	4	3.7-049-3.7.2	T 3.7B-13, 18,23,29,44,45 & 50 [Am-68] Revised to reflect the new Service Water Intake Structure analysis performed as part of the design validation for CPSES. (See evaluation under no. 3.7-054-3.7.2)	Correction
3.7.2	4	3.7-63-3.7.2	3.7B-25 and 3.7B-26 [Am-68] Clarifies the discussion regarding best estimate values, upper bound values and lower bound values used in the parametric analysis. All three values were not used for all structures. (See FSAR Section 3.7B-2.5)	Clarification
3.7.2	4	3.7-64-3.7.2-P	3.7B-26 [Am-68] Revises text to indicate that the stiffness properties for the category I Tanks and Service Water Intake Structure are generated by hand calculations.(see evaluation under 3.7-013-3.7.2-P)	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.7.3	2	1AB-38-3.7.3	1A(B)-28 [Am-64] This change updates the Regulatory Guide compliance section of the FSAR to incorporate reference to usage of Code Case N-411 damping values in lieu of Regulatory Guide 1.61 values in piping analyzed by the response spectrum method. Code Case N-411 has been approved for usage at CPSES by the NRC. Our letter TXX-6086 of November 10, 1986, transmitted proposed FSAR changes incorporating Code Case N-411, However, these FSAR Sections were inadvertantly omitted.	Addition
3.7.3	2	1AN-5-3.7.3	1A(N)-34 [Am-64] This change updates the Regulatory Guide compliance section of the FSAR to incorporate reference to usage of Code Case N-411 damping values in lieu of Regulatory Guide 1.61 values in piping analyzed by the response spectrum method. Code Case N-411 has been approved for usage at CPSES by the NRC. Our letter TXX-6086 of November 10, 1986, transmitted proposed FSAR changes incorporating Code Case N-411, However, these FSAR Sections were inadvertantly omitted.	Update
3.7.3	2	3.7-003-3.7.3	3.7N-32 [Am-68] Revises the active dynamic degrees of freedom from 27 to 23 for the vertical seismic model for the Reactor Internals based on seismic qualification reports.	Revision
3.7.3	2	3.7-004-3.7.3	3.7N-32 [Am-68] Revises the results from the model analysis of the horizontal system from 17 to 12 modes present with frequencies less than 33 Hz based on seismic qualification reports.	Revision
3.7.3	2	3.7-039-3.7.3	3.7B-55 [Am-61] Reduces the number of maximum amplitude loading cycles for OBE from 600 cycles to 50 cycles and for SSE from 120 cycles to 10 cycles for ASME Code Class 2 and 3 piping systems only. It also deletes the paragraph which describes how the number of maximum amplitude loading cycles is determined since this was based on Gibbs and Hill methodology and is not appropriate for the SWEC requalification effort. The number of earthquake cycles is in conformance with regulatory guidance (NUREG-0800, Section 3.7.3, Subsection II.2.b and Section 3.9.2, Subsection II.2.b) and is consistent with SWEC methodology on other dockets.	Revision
3.7.3	2	3.7-041-3.7.3	3.7B-59 [Am-66] Equivalent Static Load Method section is modified to incorporate those cases previously covered by Section 3.7B.3.8.1.1. For piping systems with nominal pipe diameter greater than 2" but less than or equal to 4", which were previously covered by 3.7B.3.8.1.1,	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			are now addressed in accordance with 3.9B.2.2.	
3.7.3	2	3.7-042-3.7.3	3.7B-60 [Am-66] Simplified design method outline in FSAR Section 3.7B.3.8.1.1 is deleted. Simplified design method is repetitive of Section 3.7B.3.5 Equivalent Static Load Method since both methods are based on static seismic analysis.	Revision
3.7.3	2	3.7-045-3.7.3	3.7B-62 [Am-61] Changes the description of the treatment of torsional effects of eccentric masses in two ways. First, the phrase "all six degrees of freedom are taken into account" has been removed for clarity. When an eccentric mass is modeled in the piping analysis, whether or not it may be considered rigid, the mass is excited by the amplified response spectra which act in the three translational orthogonal directions. Rotational inputs are not provided and, thus, only three degrees of freedom are accounted for directly. However, since the eccentric mass is offset from the pipe centerline, the three rotational degrees of freedom are accounted for indirectly by a force acting at a moment arm from the pipe centerline. The intent reflected in the previous FSAR language is unchanged. Second, as part of the requalification effort, all eccentric masses are being considered in piping analyses. In addition to eccentric valves, this approach included other support mass either resting on the pipe or attached integrally to it. Inclusion of this support mass in the piping analysis responds to external concerns and is more conservative than what had previously been done.	Revision
3.7.3	2	3.7-056-3.7.3	Figures 3.7B-51, 52, 53 Corrects the instructure response spectra for the steam generator support. The previous figures have been superseded.	Correction
3.7.3	2	3.7-060-3.7.3-R	3.7B(A)-19 [Am-66] Adds descriptions for STRUDL-SW, SHELL-1, TIMEHIS6, SHAMI. Updates section to include major computer programs used by Stone and Webster Engineering Corporation as a result of design validation activities at CPSES.	Addition
3.7.3	4	3.7-001-3.7.3	3.7N-29 [Am-61] The maximum resultant building seismic motion is considered at each support point. The previous words, "on a mode by mode basis", are clarified to state that the calculation considers the relative phase (in-phase or out-of-phase) of the seismic motion of each support.	Clarification
3.7.3	4	3.7-002-3.7.3	3.7N-29 [Am-61] The words "most severe" are replaced by "envelope" because the envelope of all applicable response spectra is used. The words	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			"most severe" imply the use of a single "worst" spectrum, whereas for different frequencies different spectra may be more severe.	
3.7.3	4	3.7-016-3.7.3	3.7B-12 [Am-66] Revises the text to eliminate the first sentence which appeared to be a commitment regarding when dynamic analysis is used. This sentence was really intended to serve as an introduction to the subsequent description of how we use dynamic analyses.	Clarification
3.7.3	4	3.7-017-3.7.3	3.7B-12 [Am-68] Deletes discussion of spectra widening and adds statement refering to FSAR section 3.7B.2.9 which deals with parametric studies and spectra widening.	Correction
3.7.3	4	3.7-040-3.7.3	3.7B-59 [Am-61] Anchor movements -- this is a clarification. The words "slow movement" were changed to "anchor movement". The word "slow" is not sufficiently descriptive. It is clarified to refer to either thermal or seismic displacement applied to the piping anchor at the terminal location. Word processing error in Am-68 version removed this change.	Clarification
3.7.3	4	3.7-043-3.7.3	3.7B-60 [Am-61] Removes a sentence describing the combination of vertical and horizontal loads. Provides an introductory paragraph on the combining of vertical and horizontal loads, and refers to FSAR Section 3.7B.2.1.2 for further discussion.	Clarification
3.7.3	4	3.7-044-3.7.3	3.7B-62 [Am-61] Changes "directly" to "absolutely". The term "absolutely" is more commonly used to refer to the absolute summation method used in this analysis.	Clarification
3.7.3	4	3.7-061-3.7.3-R	3.7B(A)-24 [Am-66] Adds references to reflect changes made on pages 3.7B(A)-19 thru 3.7B(A)-21. (See evaluation no 3.7-060-3.7.3-R).	Addition
3.7.3	4	3.7-062-3.7.3-R	T3.7B(A)-1 [Am-66](Sheet 2) Adds list of computer programs used by SWEC. Updates the table containing list of computer programs to identify computer program used by SWEC during design validation activities at CPSES. (See evaluation no. 3.7-060-3.7.3-R).	Addition
3.7.3	4	3.9-054-3.7.3-R	3.9B-5 [Am-61] References new Appendix 3B for additional computer codes. Computer codes are described in both Appendices 3.7B(A) and 3B.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.8	4	3.8-001-3.8	Sec. 3.8 [Am-68] Section 3.8 reissued with new format, page renumbering and editorial corrections (typographical errors) incorporated.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.8.1	2	1AB-4-3.8.1	1A(B)-8 [Am-66] Provides a clearer description of how R.G. 1.19 is complied with. R.G. 1.19 was developed as there were no directly applicable industry codes that covered the NDE of the contnmt. steel line and penetration welds in concrete contnmts. The regulatory staff developed, in R.G. 1.19, acceptable std. procedures for the NDE of such welds. These procedures provided a uniform quality level consistent with the safety function of contnmt. liners. Both ACI and ASME recognized that a std. set of rules were required to govern the design, materials, fabrication, erection, testing, and examination of concrete reactor vessels and contnmts. In accordance with this recognition an "ACI-ASME Technical Committee on Concrete Pressure Components for Nuclear Service" developed the Proposed Standard Code for Concrete Reactor Vessels and Components ACI359/ASME III Div 2. The ACI 359 code involved rules and requirements consistent with the intent of R.G. 1.19. The intent being a uniform quality level consistent with the safety function of contnmt liners. The alternte requirements stipulted in FSAR Section 3.8.1.6.5 reflects those methods and requirements performed in the construction of the CPSES contnmt liners. These alternate methods were reviewed and found consistent with the methods and requirements of CC-5500 of the ACI-359/ASME III Div 2. Therefore, the use of the proposed ACI-359/ASME code, with the alternate methods described in Sec. 3.8.1.6.5, in lieu of R.G. 1.19 assures that the contnmt liner welds were performed and examined to a uniform quality level consistent with the safety function of contnmt. liners.	Correction
3.8.1	2	3.8-009-3.8.1	3.8-7 [Am-68] Corrects the reference to Article CC-2000 by stating which sections do not apply. The value of the coefficient of thermal expansion used for the SWEC design of the containment is 5.5x10-6 per degree F; in accordance with Appendix A of the ACI 349-76 Code. Thus testing to determine a reasonable value to use is not necessary. Thermal conductivity for concrete is dependent on its moisture content. The actual water content in the concrete depends on various factors, such as the age of the concrete and environmental factors i.e., temperature and humidity histories. In order to bound the problem a conservative thermal conductivity value (high) was used. This will maximize the heat transfer into the concrete. Creep and shrinkage of the concrete are not critical to the design of the containment beause the containment is not prestressed. That is, creep and shrinkage characteristics of the concrete are important only for prestressed reinforcement. Because the concrete used for the containment structure does not contain special high density aggregate for radiation-shielding, special testing of the aggregate is not required.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.8.1	2	3.8-012-3.8.1-U	3.8-10 [Am-68] Incorporates Appendix A of the ACI 349-76 Code. ASME-ACI 359 Code does not provide guidance in determining thermal stresses. Therefore, additional ACI Code provisions are given. ACI 307 was previously stated as the applicable code for determining thermal stresses. However, ACI 307 is not applicable to the concrete containment structure.	Correction
3.8.1	2	3.8-013-3.8.1	3.8-11 and 3.8-12 [Am-68] Provides the correct ASME Code applicability date and sections used for the construction of the containment liner and penetrations (3.8.1.2.3(1)). The referenced codes are technically acceptable.	Revision
3.8.1	2	3.8-016-3.8.1	3.8-18 [Am-68] Allows the use of NB-2432 in lieu of CC-2612.2. NB- 2432 provides requirements for a more complete chemical analysis. The containment structure is designed and constructed to the proposed ASME-ACI-359 Code as invoked by the FSAR. Alternate methods and requirements may be used provided they meet the intent of the code. This change represents the as-built condition and meets the intent of the code. This change is incorporated in the appropriate CPSES specificati but had not previously been identified in the FSAR.	Revision
3.8.1	2	3.8-017-3.8.1	3.8-18 [Am-68] Allows 1100 aluminum to be used as flux without a chemical analysis of each batch as stipulated by CC-2623.2 as discussed above, alternate methods and requirements may be used provided they meet the intent of the code. The allowance to not require a chemical analysis of each batch of flux is based on the successful welding of studs on the liner. This change is consistent with the applicable CPSES specification but had not previously been identified in the FSAR.	Revision
3.8.1	2	3.8-018-3.8.1	3.8-19 [Am-68] Methodology described to establish the material transition curve which meets the intent of the code by using five different temperature points instead of one point every 10oF.	Revision
3.8.1	2	3.8-019-3.8.1	3.8-19 [Am-68] Allows use of the applicable section of the ASME III B&PV Code as a generic requirement for preheating. A review of the ACI-359 Code Section III found the preheating requirements to be equivalent.	Correction
3.8.1	2	3.8-020-3.8.1	3.8-19 [Am-68] Allows the engineer to approve the use of other equipment on a case by case basis. Where the use of automatic welding equipment is not feasible due to space limitations during construction,	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			it is necessary to use alternate equipment. Alternate methods may be used provided they meet the intent of the code as discussed in 3.8-016-3.8.1.	
3.8.1	2	3.8-021-3.8.1	3.8-19 [Am-68] Allows the engineer to review post-weld heat treatment records in lieu of CC-4552.2.2 requirements of an inspector's review. The term inspector refers to the "ANI," however, FSAR Section 3.8.1.2.1 specifically takes exception to the requirement for an "ANI" (inspector). The code in force for CPSES was issued as a "Draft" document and this administrative requirement is not applicable for CPSES.	Revision
3.8.1	2	3.8-023-3.8.1	3.8-20 thru 3.8-25 [Am-68] Allows use of alternate non-destructive examination methods and acceptance standards. The alternate acceptance criteria for attachments to the liner, and non-destructive examination thereof, has been reviewed and found to be technically acceptable and meets the intent of the code. That is, the welds have sufficient size to be structurally adequate and the non-destructive examinations demonstrate that the welds are free of defects that would degrade either the structural adequacy or the containment liner system.	Revision
3.8.1	2	3.8-025-3.8.1	3.8-28 [Am-68] Corrects the version of NRC Reg. Guide 1.29 from "Revision 1, 8-73" to "Revision 2, 2-76." This change will bring the reference to Reg. Guide 1.29 into conformance with the Appendix 1A(N) and 1A(B) listing of the FSAR.	Correction
3.8.1	2	3.8-029-3.8.1-X	3.8-35 thru 3.8.40 [Am-68] Changes the description of the design and analysis procedures used for the containment structure based on the reanalysis performed as part of the design validation for CPSES.	Correction
3.8.1	2	3.8-037-3.8.1	3.8-67 [Am-68] Deletes UT of liner materials. The CPSES specification does not require this UT inspection but this criteria was not clarified previously in the FSAR. The requirement for the performance of UT for plates that are loaded in the through-the-thickness direct was deleted from the ASME Code by the 1979 Winter Addenda to the 1977 Edition.	Revision
3.8.1	2	3.8-041-3.8.1	3.8-74 [Am-68] Provides correct ASME code applicability date and sections used for the construction of the containment liner and penetrations (3.8.2.2.1). The referenced codes are technically acceptable.	Revision
3.8.1	2	3.8-044-3.8.1	3.8-75 thru 3.8-77 [Am-68] Revises load equations and acceptance criteria to be consistent with Reg. Guide 1.57. The equations for Class MC components were	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			not as per the licensing commitment, i.e., Reg. Guide 1.57. The revised format is clearer and similar to the format contained in the Standard Review Plan.	
3.8.1	3	3.8-011-3.8.1	3.8-9 and 3.8-49 [Am-68] Describes which code was used for concrete punching shear. The 1973 Edition of the ASME-ACI 359 Code did not address punching shear, thus the criteria in Section 11.10.3 of ACI 318-71 was used.	Addition
3.8.1	3	3.8-024-3.8.1	3.8-26 [Am-68] Includes applicable code reference for concrete temperatures (3.8.1.2.5.2 (b)).	Addition
3.8.1	3	3.8-034-3.8.1	3.8-54 [Am-68] Adds design requirement to evaluate through the thickness properties of the liner for attachments. The allowable strength is taken as one-half of that in the transverse direction.	Addition
3.8.1	3	3.8-096-3.8.1	F 3.8-8 [Am-66] Provides better detail of the Fuel Transfer Penetration. Removes leak test channel and connection. Shows valved test connection on the sleeve.	Revision
3.8.1	4	3.8-002-3.8.1	3.8-3 [Am-68] Provides a clearer description of local thickened liner plate sections and discusses the use of overlay plates and/or for structural shapes which may be attached on the interior side of the liner of (section 3.8.1.1.5 "Steel Liner").	Clarification
3.8.1	4	3.8-003-3.8.1	3.8-4 [Am-68] Corrects the diameter of the personnel airlock as described in Section 3.8.1.1.6.1 "Personnel Airlock". Changes the diameter from "10 ft" to "9 ft," reflecting the as-built configuration.	Correction
3.8.1	4	3.8-004-3.8.1	3.8-5 [Am-68] This change clarifies the FSAR description of the personnel airlock door gaskets and equalizing valve arrangements. Automatic and manual equalizing valve operations are discussed in Vendor Manual CP-0214-001 and schematically shown on vendor prints 74-2427-119, and 74-2427-122 thru 74-2427-126. The personnel and emergency airlock gasket testing arrangement is shown in FSAR Figure 3.8-21 as a dogtooth cross section instead of a double gasket arrangement.	Clarification
3.8.1	4	3.8-005-3.8.1	3.8-4 and 3.8-5 [Am-68] This change clarifies the FSAR description of the emergency airlock equalizing valve arrangement and overall airlock leakage check requirements. Equalizing valve operations and testing arrangements	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			are discussed in vendor manual CP-0214-001 and schematically shown on vendor prints 74-2427-242 and 74-2427-200.	
3.8.1	4	3.8-006-3.8.1	3.8-5 [Am-68] Corrects the diameter of the equipment hatch as described in Section 3.8.1.1.6.3 "Equipment hatch". Changes the diameter from "15 ft" to "16 ft," reflecting the as-built configuration.	Correction
3.8.1	4	3.8-007-3.8.1	3.8-5 and 3.8-6 [Am-68] Deletes the discussions of electrical penetrations from Section 3.8.1.1.6.5, "Fuel Transfer Tube Penetration" and includes these items under the new Section 3.8.1.1.6.6 "Electrical Penetrations."	Clarification
3.8.1	4	3.8-008-3.8.1	3.8-6 [Am-68] Provides an expanded and clearer description of liner attachments in Section 3.8.1.1.6.7 (previously Section 3.8.1.1.6.6). Adds items welded to the thickened liner plate and discusses use of overlay plates and/or structural plates attached to the interior side of the liner. Corrects the reference to article CC-2000 by stating which sections do not apply.	Clarification
3.8.1	4	3.8-010-3.8.1	3.8-9 [Am-68] Deletes a sentence concerning ACI 318-71 which was unnecessary and confusing.	Clarification
3.8.1	4	3.8-015-3.8.1	3.8-12 and 3.8-13 [Am-68] Provides material specifications used on the construction of the liner and penetrations(3.8.1.2.3(1)).	Addition
3.8.1	4	3.8-022-3.8.1	3.8-20 [Am-68] Removes "CC-5540..." and inserts at correct chronological position in text.	Editorial
3.8.1	4	3.8-026-3.8.1	3.8-29 [Am-68] Deletes the reference to Reg. Guide 1.57 from this location as it does not apply to steel containment backed by concrete. It has been relocated to Sec. 3.8.2.2.3.	Clarification
3.8.1	4	3.8-027-3.8.1	3.8-30 [Am-68] Deletes wording "... if additive in the calculation of maximum stresses" because the words are unnecessary and confusing.	Clarification
3.8.1	4	3.8-028-3.8.1	3.8-31 [Am-68] This change clarifies and expands the load definitions for Wt, Yr, Yj and Ym.	Clarification
3.8.1	4	3.8-030-3.8.1	3.8-39 [Am-68] Spelled out General Design Criteria.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.8.1	4	3.8-031-3.8.1	3.8-49 [Am-68] This change clarifies the statement (3.8.1.5.2) discussing allowable stress increases by adding the phrase "which include thermal." The revised statement is consistent with the ASME-ACI 359-73 Code and the SRP.	Clarification
3.8.1	4	3.8-032-3.8.1	3.8-54 [Am-68] Adds clarification that the penetration nozzles are to be designed to ASME III, Division 1.	Clarification
3.8.1	4	3.8-033-3.8.1	3.8-54 [Am-68] Adds overlay plates to description of attachments to liner for which the design allowables of the AISC Specification apply.	Clarification
3.8.1	4	3.8-035-3.8.1	3.8-66 [Am-68] Provides material specifications used in the construction of the penetrations. (See evaluation no. 3.8-015-3.8.1)	Addition
3.8.1	4	3.8-036-3.8.1	3.8-66 [Am-68] Corrects item h to reference where clarifications are provided (Section 3.8.1.2.5(2)(a)).	Editorial
3.8.1	4	3.8-038-3.8.1	3.8-68 [Am-68] Corrects to reference where clarifications are provided (Section 3.8.1.2.5.2.a.)	Editorial
3.8.1	4	3.8-039-3.8.1	3.8-70 [Am-68] Removed the conjunction "and" and two commas to make the sentence clearer. No technical change intended.	Clarification
3.8.1	4	3.8-042-3.8.1	3.8-74 [Am-68] Deletes codes, specifications, and standards from Section 3.8.2.2.2 as they are listed in Sections 3.8.1.2.3 and 3.8.1.6.6.	Correction
3.8.1	4	3.8-043-3.8.1	3.8-74 [Am-68] Adds reference to Reg. Guide 1.57 as it applies to steel containment not backed by concrete. (components such as locks and hatches)	Clarification
3.8.1	4	3.8-082-3.8.1	3.8-134 [Am-68] Adds reference to reflect change in Section 3.8.1.2.2.	Addition
3.8.1	4	3.8-085-3.8.1	F3.8-7 [Am-68] Revises details to reflect as-built configurations and give information which is consistent with proper references	Update
3.8.1	4	3.8-086-3.8.1-X	130-17 [Am-68] Corrects the response for Q130-17 to indicate the computer programs used as a part of the design validation for CPSES.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.8.1	4	3.8-095-3.8.1	3.8-25 [Am-68] Inserts paragraph on CC-5540. This was relocated unchanged from page 3.8-20.	Editorial
3.8.1	4	3.8-097-3.8.1	F3.8-9 [Am-68] Deletes drawing reference to revision no. and the scale to prevent mis-interpretation of the figure.	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.8.2	2	3.8-014-3.8.2-S	3.8-11 and 3.8-12 [Am-68] Clarifies the applicability of the AISC specification Connections using A325 or A490 high strength bolts need not be pretensioned to the values required by AISC specification, Table 1.23.5. There are some connections in which pretensioning is undesirable, such as thermal connections that allow movement between the connected parts.	Revision
3.8.2	2	3.8-048-3.8.2	3.8-81 and 3.8-82 [Am-68] The discussion on polar crane derailment is clarified in regard to load combinations. ASME and B&PV Code, Section III, Appendix XVII, Subarticle XVII-2110 allows local plastic deformation for critical equipment parts which are required to maintain the capability of the equipment to perform its safety function (See FSAR Section 9.1.4.3.2 for fuel handling and storage equipment). FSAR Section 3.8.3.1.2 for the containment polar crane has been clarified to identify the use of this design allowance. Also, the discussion on SSE has been deleted from this FSAR Section and expanded in FSAR Section 9.1.4.3.2.	Revision
3.8.2	2	3.8-049-3.8.2-S	3.8-82 [Am-68] Clarifies the applicability of the AISC specification for structural steel and an exception taken to pretensioning high strength bolts per Table 1.23.5.	Revision
3.8.2	2	3.8-060-3.8.2	3.8-94 thru 3.8-96 [Am-68] Changes the description of the design and analysis procedures to correct inconsistencies within FSAR Sections and to reflect the new methodologies used during design validation activities.	Correction
3.8.2	2	3.8-063-3.8.2-W	3.8-98 [Am-68] Removes reference to Appendix A of the ACI 318-71 Code. ACI 318 is intended for Commercial buildings and the design seismic load is based on building code such as the Uniform Building Code (UBC) where the design seismic load is a fraction of the full elastic seismic load calculated based on elastic analysis. Thus, in the event of an earthquake, large deformation is expected. Therefore, the code (ACI 318, Appendix A) requires special provisions to accommodate the large deformation. For nuclear power plant structures, the structures are designed for full elastic seismic load and the provisions in ACI 318, Appendix A are not applicable.	Revision
3.8.2	2	3.8-064-3.8.2-W	3.8-99 [Am-68] Change anchorage requirement for reinforcement to allow required length to be based on testing. The standard detail for development of reinforcement using a 90o hook is not in agreement with Chapter 12 of ACI 318-71. New Test Data is available which allows a reduction	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			of development length. It should also be noted that the anchorage requirements for standard 90o hooks were revised in ACI 318-83 to allow a similar reduction of development length.	
3.8.2	3	3.8-050-3.8.2	3.8-83 [Am-55] Adds a commitment and a reference to the Visual Weld Acceptance Criteria. SSER 12, p3-3, states in part "...the use of VWAC, Rev. 2, submitted in FSAR, Am-55, will ensure the adequate quality of non-ASME code structural steel welds when it is used for the inspection of unrated welds."	Addition
3.8.2	3	3.8-053-3.8.2	3.8-84 [Am-68] Includes "Specification for Structural Joints using ASTM A325 of A490 Bolts" as an applicable Code. This specification has been endorsed by AISC "Specification for the Design, Fabrication and Erection of Structural Steal for Buildings."	Addition
3.8.2	3	3.8-059-3.8.2	3.8-91 [Am-68] This change clarifies the load combinations for the plastic design of steel structures as stated in the Standard Review Plan.	Correction
3.8.2	3	3.8-061-3.8.2-U	3.8-98 [Am-68] Incorportes Appendix A of ACI 349-76. (See evaluation under no. 3.8-012-3.8.1-U)	Correction
3.8.2	3	3.8-062-3.8.2-U	3.8-98 [Am-68] Corrects description to clearly state that ACI 349- 76, Appendix A is to be used for factored load combinations. The justification for page 3.8-83 provides additional information. (see evaluation under no. 3.8-012-3.8.1-U)	Correction
3.8.2	3	3.8-067-3.8.2-V	3.8-102 [Am-68] Removed reference to Appendix A of the ACI 318-71 Code. (Evaluated under no. 3.8-063-3.8.2-V)	Revision
3.8.2	4	3.8-045-3.8.2	3.8-80 [Am-68] Provides clarified description of the containment operating floor.	Clarification
3.8.2	4	3.8-046-3.8.2	3.8-80 [Am-68] Removes unnecessary slab thickness dimension to provide consistency with the other discussions.	Clarification
3.8.2	4	3.8-047-3.8.2	3.8-80 [Am-68] Provides additional information regarding the design of the containment interior base slab.	Addition
3.8.2	4	3.8-051-3.8.2	3.8-83 [Am-68] Clarifies description by relocating the word "apply".	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.8.2	4	3.8-052-3.8.2-U	3.8-83 [Am-68] Incorporates Appendix A of the ACI 349-76 code. ASME-ACI 359 Code does not provide guidance in determining thermal stresses. Therefore additional ACI Code provisions are given. ACI 307 was previously stated as the applicable code for determining thermal stresses. However, ACI 307 is not applicable to the concrete containment structure. (see evaluation under no. 3.8-012-3.8.1-U)	Correction
3.8.2	4	3.8-054-3.8.2-T	3.8-54 and 3.8-85 [Am-68] Deletes title of specification consistent with statement on FSAR page 3.8-11. "AISC Specification" always means 1969 Building Spec.	Editorial
3.8.2	4	3.8-055-3.8.2	3.8 [illegible] [Am-68] Provides correct cross-reference to Section 3.9N.1.4.	Editorial
3.8.2	4	3.8-056-3.8.2	3.8-86 [Am-68] Corrects description of live load, since containment internal structures are not affected by outside atmospheric changes.	Clarification
3.8.2	4	3.8-057-3.8.2-T	3.8-88, 3.8-89 and 3.8-90 [Am-68] Uses shortened form "AISC Specification" (2 places).	Editorial
3.8.2	4	3.8-058-3.8.2	3.8-90 [Am-68] This change clarifies the discussion (3.8.3.3.2.2) of allowable increase in local strength capacities to match the wording contained in the Standard Review Plan.	Clarification
3.8.2	4	3.8-065-3.8.2-T	3.8-99 [Am-68] Uses shortened form for "AISC Specification".	Editorial
3.8.2	4	3.8-066-3.8.2-T	3.8-102 [Am-68] Uses shortened form for "AISC Specification".	Editorial
3.8.2	4	3.8-068-3.8.2	3.8-105 [Am-68] Clarifies note at the beginning of Section 3.8.3.6.4.1 "Materials." As previously stated, the phrase "unless otherwise noted" could be misinterpreted to mean "unless otherwise noted in the FSAR." The list of materials is not intended to be a complete listing of all structural and miscellaneous steel material used at CPSES. This change allows the use of other acceptable materials conforming to ASTM Standards when specified by the Engineer on design documentation.	Clarification
3.8.2	4	3.8-069-3.8.2-T	3.8-106 [Am-68] Uses shortened form for "AISC Specification" (2 places).	Editorial
3.8.2	4	3.8-080-3.8.2-T	3.8-134 [Am-68] Adds total reference for "AISC Specification" used throughout the Section.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.8.2	4	3.8-081-3.8.2	3.8-134 [Am-55] Adds reference to reflect changes in Section 3.8.3.2.1.	Addition
3.8.2	4	3.8-098-3.8.2	App 3A [Am-55] The Visual Weld Acceptance Criteria are presented in this Appendix. For evaluation see no. 3.8-050-3.8.2.	Addition

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.8.3	2	3.8-070-3.8.3	3.8-111 and 3.8-112 [Am-68] Provides changes to the [illegible] discussion for outdoor seismic Category I tanks (Section [illegible]..6). The changes clarify the text and make discussions consistent with analysis done in the validation effort.	Correction
3.8.3	2	3.8-071-3.8.3-W	3.8-112 [Am-68] References 3.8.3.4.7(3) for rebar anchorage requirements.	Revision
3.8.3	2	3.8-076-3.8.3	3.8-121 [Am-68] Provides changes to the technical discussion regarding design and analysis procedures (3.8.4.4). The changes make the discussion consistent with analysis done in the validation effort.	Correction
3.8.3	2	3.8-078-3.8.3	3.8-123 [Am-68] Adds Alternative design criteria for brackets and corbels when considering shear stress. This change permits design of brackets or corbels based on PCI design handbook Second Edition 1978. The PCI committee on connection details suggested this alternative method in place of the applicable Section of ACI 318-77.	Revision
3.8.3	2	3.8-087-3.8.3-Y	130-25 [Am-68] Corrects the response for Q130-25 to reflect the work done as part of the design validation for CPSES.	Correction
3.8.3	2	3.8-088-3.8.3-Y	130-27 [Am-68] Corrects the response for Q130-27 to reflect the work done as part of the design validation for CPSES.	Correction
3.8.3	3	3.8-075-3.8.3	3.8-118 [Am-68] Clarifies load combinations for the elastic working stress design methods of steel structures as stated in the Standard Review Plan.	Correction
3.8.3	3	3.8-084-3.8.3	T3.8-1 [Am-68] The values indicated in this Table 3.8-1 will change based on the analysis performed during validation. Therefore, the contents in this table are being deleted. Upon completion of the design validation activity this summary table will be updated for each Category I structure, showing the loading condition considered, the related stresses computed and their corresponding allowable stresses at key locations of the structure will be provided.	Revision
3.8.3	3	3.8-090-3.8.3	130-49 [Am-59] Reflects masonry block wall changes. (Q130.36)	Update
3.8.3	4	3.8-072-3.8.3-T	3.8-115 [Am-68] Uses shortened form for "AISC Specification".	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.8.3	4	3.8-073-3.8.3	3.8-117 [Am-68] This change clarifies the discussion (3.8.4.3.2(2)) of allowable increases in local strength capacities to match the wording contained in the Standard Review Plan.	Clarification
3.8.3	4	3.8-074-3.8.3-T	3.8-117 [Am-68] Uses shortened form for "AISC Specification".	Editorial
3.8.3	4	3.8-077-3.8.3-T	3.8-121 [Am-68] Uses shortened form for "AISC Specification".	Editorial
3.8.3	4	3.8-083-3.8.3	3.8-134 [Am-68] Adds reference to reflect change in Section 3.8.4.5.4 of the FSAR.	Addition
3.8.3	4	3.8-089-3.8.3-Y	130-29 [Am-68] Corrects the response for Q130-28 to reflect the work done as part of the design validation for CPSES. (see evaluation no. 3.8-087-3.8.3-Y)	Correction
3.8.3	4	3.8-091-3.8.3	130-50 [Am-64] The term "masonry" has been replace by "removable block" because removable block walls are not masonry walls.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.8.4	2	3.8-079-3.8.4	3.8-125 [Am-68] Presently Section 3.8.5.1.3 states a minimum of 1" gap exists at base mats. Investigation in accordance with CPRT ISAP IIc revealed that some debris existed in the separation gaps. In general, resolution of ISAP IIc requires the removal debris and maintenance of the minimum gap required by analysis. However, debris located between foundation mats may remain in place since mats are constructed on bed rock and are very stiff, resulting in minimal interaction between adjacent foundations. Hence, building response will not be affected by debris in gaps located at some foundation locations.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.9.1	2	3.9-017-3.9.1-A	T3.9N-1 [Am-61] Provides a description of the Faulted Condition based on the new leak-before-break design basis.	Update
3.9.1	2	17A-003-3.9.1	T17A [Am-61] Indicates that the reactor cavity non-crushable insulation is no longer required and may be eliminated. As referenced in the table 3.9N.1-4	Revision
3.9.1	4	3.9-001-3.9.1	3.9N-15 [Am-68] Deletes the reference to boron injection tank use and inserts that these pumps now deliver cold water from Refueling Water Storage Tank (RWST). The boron injection tank was deleted in Am-16 to the FSAR but was missed at this location. This is a non-technical change.	Editorial
3.9.1	4	3.9-051-3.9.1	3.9B-1 [Am-66] Replacing the word "shutdown" with "conditions" is consistent with accepted Regulatory Guidance and Standard Review Plan usage when specifying faulted or testing "conditions".	Editorial
3.9.1	4	3.9-052-3.9.1	3.9B-2a/2b 3.9B-2c/2d [Am-63] These pages should have been deleted by a previous amendment but were not. These pages deleted by this admendment.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.9.2	2	3.9-009-3.9.2	3.9N-36 [Am-61] Inserts a paragraph which defines the design basis for vessel motion and describes how it was analyzed for CPSES.	Addition
3.9.2	2	3.9-012-3.9.2-A	3.9N-41 [Am-61] Inserts a sentence removing main loop breaks from the design basis for primary component supports and describes how they were analyzed for CPSES. Deletes a sentence referring to the pipe restraint evaluation which is no longer required.	Revision
3.9.2	2	3.9-016-3.9.2	3.9N-83 and 84 [Am-68] The majority of the E-specifications covering Westinghouse supplied active valves specify accelerations of either 3g/2g (horizontal/vertic or 2.1g/2.1g (two horizontal, vertical directions). 2.1g in three directions is the equivalent of 3g/2g in two directions. A few E-specifications which were written in the latter stages of valve procurement for Comanche Peak, specify 4g/4g/4g. This did not reflect a change in CPSES design criteria, but was a result of multi-plant valve orders supplied by Westinghouse. Included in these orders were plants which were committed to the higher acceleration values (i.e., 4g/4g/4g). All piping analyses performed by Westinghouse have maintained the valve accelerations within teh limits specified in the appropriate valve E-specifications. Any valve acceleration resulting from the piping analysis which exceeds the E-Specification allowables is evaluated and resolved on a case by case basis. Likewise, the piping analyses performed by GWEC utilize the E-Specification acceleration limits for each Westinghouse supplied valve. An upgrade of thequalification documentation for all active valves to 4g/4g/4g would require a significant effort in revising each valve calculation to address the higher accelerations. In addition, selected valves may require retesting and the potential exists for having to replace hardware if qualification to the higher levels can't be demonstrated. Therefore the wording is revised to reflect the 2.1g/2.1g/2.1g level with which CPSES is in com. & to which is committ	Correction
3.9.2	2	3.9-048-3.9.2-A	F3.9N-1 [Am-61] Adds note (1) stating the leak-before-break criteria whereby the shown loop restraint(s) may be eliminated.	Revision
3.9.2	2	3.9-061-3.9.2	3.9B-18 [Am-57] Changes description of steady state vibration testing to remove the reference to the use of table for the acceptance criteria for maximum allowable deflection.	Correction
3.9.3	2	3.9-064-3.9.2	3.9B-20 [Am-57] Changes description of steady state vibration testing acceptance criteria to remove the reference to the use of specific tables to	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			maximum allowable deflection.	
3.9.2	3	3.9-002-3.9.2	3.9N-27 [Am-61] Computer code name WESTDYN-7 has been changed to WESTDYN. Also the word "redundant" has been removed from the code description because the code also applies to non-redundant systems.	Correction
3.9.2	3	3.9-013-3.9.2	3.9N-42 [Am-68] Revises the values used for percentage damping for R.C. pump seismic analyses to be consistent with percentage damping utilized for seismic analysis of Westinghouse-supplied reactor internals. This revision results in a more conservative seismic analysis of the R. C. pump.	Revision
3.9.2	3	3.9-014-3.9.2	3.9N-45 [Am-61] Inserts the last two sentences on the page which define the design basis for the reactor vessel as conservatively continuing to include effects eliminated by the leak-before-break update, and which refer to Table 3.6B-2.	Revision
3.9.2	3	3.9-015-3.9.2	3.9N-47 [Am-61] Same two sentences are inserted to form the first paragraph under "loading Conditions".	Revision
3.9.2	3	3.9-015-3.9.2	3.9N-46 [Am-61] Same two sentences are inserted on this page as they were on page 3.9N-45.	Revision
3.9.2	3	3.9-058-3.9.2	3.9B-17 [Am-66] The second section is replaced with a listing of systems to be tested and their corresponding transient test to be performed. This list expands the scope of testing as a result of support requalifications effort.	Revision
3.9.2	4	3.9-003-3.9.2	3.9N-29 [Am-61] Adds words on "large branch nozzles" and the reference to Table 3.6B-2	Clarification
3.9.2	4	3.9-004-3.9.2	3.9N-30 [Am-61] Corrects reference to forcing functions from Section 3.6N to Section 3.6B.2.2.1.	Correction
3.9.2	4	3.9-005-3.9.2	3.9N-31 [Am-61] Computer code name is changed to WESTDYN from WESTDYN-7. (see evaluation no. 3.9-002-3.9.2)	Editorial
3.9.2	4	3.9-006-3.9.2	3.9N-34 [Am-61] A reference is added to show that "closely spaced modes" were considered and provides FSAR section where it is discussed.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.9.2	4	3.9-007-3.9.2	3.9N-34 [Am-61] Under "Loss of Coolant Accident", the word "nozzles" is added to clarify that only severance locations at the nozzles are considered.	Clarification
3.9.2	4	3.9-008-3.9.2	3.9N-35 [Am-61] Changes computer code name to WESTDYN from WESTDYN-7. (see evaluation no. 3.9-002-3.9.2)	Editorial
3.9.2	4	3.9-010-3.9.2	3.9N-40 [Am-61] The previous statement regarding eight permutations was confusing and has been changed to simply state that seismic loads can be either positive or negative. The most conservative seismic combination is used.	Clarification
3.9.2	4	3.9-011-3.9.2	3.9N-40 [Am-61] Change computer code name to WESTDYN from WESTDYN-7. (see evaluation 3.9-002-3.9.2)	Editorial
3.9.2	4	3.9-057-3.9.2	3.9B-15, 3.9B-17, 3.9B-18, 3.9B-20 [Am-57] Decimal paragraph designation and titles added within Section 3.9B-2.1	Clarification
3.9.2	4	3.9-059-3.9.2	3.9B-17 [Am-66] The last paragraph is clarified to explicitly describe that locations with instrument measuring capability measure transient loads for later comparison with predicted values (calculated) Refinement in test data obtained will provide improved ability to judge test and analyses results.	Clarification
3.9.2	4	3.9-060-3.9.2	3.9B-17 and 3.9B-18 [Am-66] The end of the last paragraph on 3.9B-17 is clarified and reworded since the first sentence of that paragraph now states that tested systems are visually observed and instrument measurements are made at some locations. The acceptance criteria basis is better defined to be consistent with the detail provided on scope of systems to be tested.	Clarification
3.9.3	4	3.9-062-3.9.2	c.9B-18 [Am-66] The first paragraph of Section 3.9B.2.1.3 is rewritten to improve the discussion presented and to better define the commitments. Clarifies description of the scope of the Steady State vibration tests by explicitly providing the commitment of steady state vibration tests and listing of systems that fall within the test commitment.	Clarification
3.9.3	4	3.9-063-3.9.2	3.9B-19 and 3.9B-20 [Am-66] Revises the second paragraph of Section 3.9B.2.1.3 to clarify that observed vibrations by qualified engineers are not measured.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			The only measurements recorded are by instrument measuring devices that determine loading at those locations vibrations are evaluated to be excessive. Resolutions listed for resolving excessive vibration problems were clarified to reflect ASME code allowables as acceptance criteria and the acceptability of rerouting piping (considered part of support system). Editorial changes were made on page 3.9B-19 in Am-68 to this clarification provided in Am-66.	
3.9.2	4	3.9-065-3.9.2	3.9B-19 [Am-66] Clarifies the second paragraph in Section 3.9B.2.1.4 to reflect repetition of testing to ensure that thermal and vibration movements satisfy acceptance criteria (ASME code stress and fatigue allowables)	Clarification
3.9.2	4	3.9-066-3.9.2	3.9B-19 [Am-66] Revises the fourth paragraph in Section 3.9B.2.1.7 to eliminate reference to "familiar with the systems to be tested" since any personnel participating in test are trained and familiarized with their scope of testing responsibility.	Clarification
3.9.2	4	3.9-067-3.9.2	3.9B-21 [Am-66] Compares test results with "predicted" results as determined by piping stress analyses.	Clarification
3.9.2	4	3.9-075-3.9.2	3.9B-34 [Am-66] Revises the discussion to put the discussion on rigid and non-rigid valves in one test and to clarify item "1". Item 1 could have been interpreted as a commitment to design all valves as rigid but this item was intended to identify which criteria applies to be rigid. Parts of the existing text was reformatted to be items 6 and 7.	Clarification
3.9.2	4	3.9-076-3.9.2	3.9B-34 [Am-66] On item 5 the test are performed with the valve at "design" pressure and temperature and not "rated values." Operability for CPSES is adequately demonstrated by using design values. Testing at rated values would be over-conservative and was never intended.	Clarification
3.9.2	4	3.9-086-3.9.2	T3.9B-1A [Am-66] (sheet 1) Lists other dynamic events (e.g., steam or water hammer) separately since these dynamic loads are combined in a differenc manner. See FSAR Section 3.9B.3.1.1.	Clarification
3.9.2	4	3.9-088-3.9.2	T3.9B-1A [Am-66] (sheet 2) Adds note 5 to indicate other dynamic events separately.	Clarification
3.9.2	4	3.9-109-3.9.2	3.9B-17 [Am-66] The first paragraph is revised to clarify that CPSES Dynamic Transient Response Testing Commitment includes visual observations.	Clarification

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3.9.3	1	3.9-041-3.9.3-Z	T3.9N-14 thru T3.9N-19 [Am-55] Tables up-dated to reflect the latest revision of the stress report for RCS equipment supports. Generally speaking all values have been changed; all stresses are still less than allowable.	Update
3.9.3	1	3.9-042-3.9.3-Z	T3.9N-14 [Am-55] Bumper LS-1 and Beam LS-2 are now found to carry small loads during normal operation instead of carrying no load. LS-1 loading increases from 92% to 98% in the faulted condition and note "d" is increased from 82% to 91% stressed. Note e is added.	Update
3.9.3	1	3.9-044-3.9.3-Z	T3.9N-16 [Am-55] The tie rods are now found to carry small loads during normal operation instead of carrying no load. Tie rod B loading increases from 89% to 98% in the faulted condition and noted d and e are added.	Update
3.9.3	1	3.9-045-3.9.3-Z	T3.9N-17 [Am-55] The struts are now found to carry small loads during normal operation. The S-1 loading is reduced from 99.5% to 98% in the faulted condition. Note a is added. In the lower support, the overturning movements have increased slightly; the anchor colt stress in the faulted condition is increased from 84.5% to 86.5%.	Update
3.9.3	1	3.9-110-3.9.3-z	T3.9N-19 [Am-55] The LOCA case has been divided into LOCA-1 and LOCA-2 as defined in th footnotes. Note b is changed from "deadweight + pressure + SSE2 + LOCA2" to "deadweight + pressure + thermal + O.T. thermal + pressure". On the new basis, loadings have been reduced, for example, the faulted condition is changed from 3359 kips to 3015. Note a is added to the R.V. Support Stress Table. On this new basis, the faulted stress is increased from 45% to 98% of allowable.	Update
3.9.3	1	3.9-110-3.9.3-Z	T3.9N-19 [Am-55] The LOCA case has been divided into LOCA-1 and LOCA-2 as defined in th the footnotes. Note b is changed from "deadweight + pressure + SSE2 + LOCA2" to "deadweight + pressure + thermal + O.T. thermal." On the new basis, loadings have been reduced, for example, the faulted condition is changed from 3359 kips to 3015. Note a is added to the R.V. Support Stress Table. On this new basis, the faulted stress is increases from 45% to 98% of allowable.	Update
3.9.3	2	1AB-9-3.9.3	1A(B)-20 [Am-66] For ASME C1. 2&3 BOP valves, the current FSAR defines pressure limits, but does not explicitly define Stress limits. The FSAR design comm*-	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			ments for ASME 2&3 BOP active valves are taken from Postn C.11 & C.12 of R.G. 1.48, May 1973. R.G. 1.48 requires that Cl. 2&3 active valves be limited to normal ASME design stress limits unless their operability during and after the SSE has been demonstrated by testing. When the active valves have satisfied operability test reqmts as prescribed by Note 11 of the Reg. Guide position (pp 1-48-4 & 1-48-5), the use of higher design stress limits stated in R.G. 1.48 are allowed. The higher limits are the same stress limits used for non-active valves. Sec 3.9B.2.2 endorses testing of mech and struct complex equipment to demonstrate operability during and after a postulated quake. Operabili is demonstrated for ASME Cl 2&3 active valves by mounting the valves with body at design pressure and temp, directly on the shaker table or by static deflection tests. Sec 3.9B.3.1.1, Note 1, for T3.9B-5 and T3.9B-6 causes confusion concerning the design reqmts (stress limits) for active and in active valves. The current FSAR position requires that BOP Cl 2&3 active valves be limited to normal ASME code design stress limits although active valve operability during and after the earthquake has been demonstrated by tests. Thus the FSAR is more restrictive than Note 11 of 1.48 which allows the use of higher design stress limits (equal to inactive valves design values) if active valve operability is demonstrated for the earthquake. This overly conservative position has resulted in unnecessary rev to vendor stress reports and the implementation of plant design mods.	
3.9.3	2	1AB-10-3.9.3	1A(B)-20 [Am-66] Replaces the discussion to Regulatory Guide 1.48 with the discussion provided in Appendix 1A(N) to Regulatory Guide 1.48. This position is adopted because BOP ASME Code Class 2 and 3 valves Emergency and Faulted conditions design stress limits are increased to values provided by Standard Review Plan 3.9.3, Rev. 1, dated July 1981. The higher design stress limits exceed the design stress limits provided by Regulatory Guide 1.48 and provide alternate criteria consistent with the design criteria employed in NSSS Class 2 and 3 valves. Piping stress limits are in accordance with ASME code allowables and not dictated by Regulatory Guide 1.48.	Revision
3.9.3	2	1AB-17-3.9.3	1A(B)-50, 51 [Am-56] Updates discussion of R.G. 1.84 and R.G. 1.85 concerning reference to code case in procurement specifications.	Update
3.9.3	2	3.9-027-3.9.3	T3.9N-10 [Am-55] (sheet 3) RHRS valves FCV-618 are removed from the list since they were designated as for normal cooldown.	Update
3.9.3	2	3.9-035-3.9.3-A	T3.9N-12 [Am-61] Adds a footnote which defines the leak-before-break design basis for primary component supports and describes how they were	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			analyzed for CPSES.	
3.9.3	2	3.9-036-3.9.3-A	T3.9N-13 [Am-61] Adds footnote on leak-before-break design basis.	Revision
3.9.3	2	3.9-037-3.9.3-A	T3.9N-14 [Am-61] Adds footnote on leak-before-break design basis.	Revision
3.9.3	2	3.9-038-3.9.3-A	T3.9N-15 [Am-61] Adds footnoteon leak-before-break design basis.	Revision
3.9.3	2	3.9-039-3.9.3-A	T3.9N-16 [Am-61] Adds footnote on leak-before-break design basis.	Revision
3.9.3	2	3.9-040-3.9.3-A	T3.9N-19 [Am-61] Adds footnote on leak-before-break design basis.	Revision
3.9.3	2	3.9-050-3.9.3-A	112-38 [Am-61] Updates the response to this question to incorporate the leak-before-break design basis.	Update
3.9.3	2	3.9-053-3.9.3	3.9B-4 [Am-61] Removes the SSE from emergency loading combination. This change is being applied to ASME Class 2 and 3 piping systems and components, and to Class 1,2 and 3 pipe supports. This change is also applicable to all piping and supports analyzed by SWEC for the IE Bulletin 79-14 program. Application of this revision is in compliance with NUREG-0800, Appendix A, and is consistent with the methodology used in CPSES NSSS (Class 1) loading combinations, and with SWEC methodology used on more than eight dockets. In the advance submittal, in item 2 under "Emergency Condition" the words "small steam line" were revised to read "small high energy line". Under "Faulted Conditions", in item 2, the words "large steam line" were revised to read "large high energy line". These two changes were subsequently determined to be inappropriate and the original words have been replaced in Am-61. In the advance submittal, item "b" under "Emergency Conditions" was deleted This item was subsequently determined to be applicable and has been replaced as item "4" under "Emergency Conditions" in this amendment.	Revision
3.9.3	2	3.9-068-3.9.3	3.9B-25 3.9B-26 [Am-61] Specifies the Code of record for Class 2 and 3 piping systems and supports. It expressly invokes NA-1140 for use of later Code Editions and Addenda and also references the plant specifications for the location of details relating to Editions, Addenda and Cases used for Class 2 and 3 piping systems and supports. These words were added for information to describe existing practice.	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.9.3	2	3.9-070-3.9.3	3.9B-17 [Am-61] Substitutes SRSS method for absolute summation method for combining peak dynamic responses of piping systems due to seismic, LOCA, and/or occasional loads. This change applies to ASME Class 2 and 3 piping and Class 1, 2 and 3 pipe supports. The SRSS combination of SSE and LOCA responses is in accordance with the methodology of NUREG-0484 "Methodology for Combining dynamic Responses", (May 1980). The SRSS method for combining water hammer events (occasional loads) with earthquakes and plant dynamic events is also an acceptable method in NUREG-1061, "Evaluation of Other Dynamic Loads and Load Combinations", (Volume 4, January 1985). Application of this change is consistent with SWEC methodology used on more than eight dockets and consistent with the methodology used on CPSES NSSS (Class 1) piping. In addition this change improves the overall plant design by eliminating unnecessary pipe supports which will minimize plant maintenance and reduce personnel exposures consistent with ALARA considerations. Amendment 66 later expands this methodology to treat components and to reference Table e.9B-1A.	Revision
3.9.3	2	3.9-072-3.9.3	3.9B-27 [Am-66] Changes the commitment for combining dynamic pipe loads for components (Table 3.9B-1A). Previously, for equipment, all loads were combined by the most conservative method. The intent of this change is to allow the combination of peak dynamic responses using the Square Root of the Sums of the Squares (SRSS) method. The specific loads involved are seismic loads and other dynamic loads such as steam or water hammer. This revised commitment is consistent with the methodology used for piping which is also consistent with NUREG 0484, REvision 1. Piping has obviously met conditions A and B of the referenced NUREG. The NUREG is not limited to piping, but covers all ASME components. Therefore, use of the NUREG methodology is appropriate for equipment with the same loads accepted by piping.	Revision
3.9.3	2	3.9-085-3.9.3]	T3.9B-1A [Am-61] Removes the SSE from the emergency load combination in accordance with the text on page 3.9B-4.	Revision
3.9.3	2	3.9-087-3.9.3	T3.9B-1A [Am-66] (sheet 2) Revises Table notes to incorporate the position that BOP inactive valves and components utilize the loading combination specified for the applicable plant conditions. This position applies SRP 3.9.3, REv. 1, to supersede Regulatory Guide 1.48 as evaluated in item 1A(B)-010-3.9.3.	Revision
3.9.3	2	3.9-089-3.9.3	T3.9B-1B [Am61] Expands the normal condition to include Testing; specifically, preoperational containment structural integrity pressure test	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			and subsequent Containment Integrated Leak Rate Test. In addition, thermal anchor movements experienced during Normal conditions are now explicitly included. These changes are clarifications to define more precisely the Normal/Test condition. The Upset condition has been revised to explicitly include thermal anchor movements. "Single non-repeated anchor movements due to building settlement" has been deleted since this is not a parameter that is considered significant for piping analyses. The changes to the Upset condition are clarifications to better define the SWEC load combination criteria. The Emergency condition has been revised to delete SSE (see item 3.9B-4). The Faulted condition has been expanded to include temperature, thermal anchor movements, containment displacements and SSE anchor movements. These expanded loading combinations apply only to piping systems whose normal function is to prevent or mitigate the consequences of events associated with a plant faulted condition (note 8). Note 8 is a clarification of the previous not 8 to better explain to which systems the lower allowable apply. Notes 10,11 and 12 were also added for clarity. With the exception of deleting SSE from the emergency loading combination, the changes to this table result in more conservative loading combinations.	
3.9.3	2	3.9-090-3.9.3	T3.9B-1C [Am-61] Adds thermal and containment pressurization loads to the Testing condition; deletes SSE from the Emergency condition (see item 3.9-053-3.9.3); defines SSE in the Faulted condition; adds containment anchor movement to the Faulted condition; deletes note 1 for clarification and renumbers the remaining notes. The additions make this table consistent with Table 3.9B-1B.	Revision
3.9.3	2	3.9-092-3.9.3	T3.9B-5 Replaces FSAR Table with a new table identical to Table 3.9N-8 used fo NSSS Class 2 and 3 valves. All BOP Class 2 and 3 valves will be shown to meet this criteria.	Revision
3.9.3	2	3.9-106-3.9.3	T3.9B-10 [Am-66](Sht. 1) Revises Table to delete HV-2333B, HV-2334B, HV-2335B and HV-2336B. This revision is part of our response to NRC request for additional information dated February 27, 1986, which was transmitted by our letter TXX-6126 dated December 8, 1986.	Revision
3.9.3	2	3.9-127-3.9.3	T3.9B-10 [Am-55](Sheet 13) Valves HV-4710, CC-611 and CC-618 are deleted from the list consistent with the updated flow diagrams.	Update
3.9.3	2	3.9-133-3.9.3	T3.9B-10 (sheet 15) [Am-55] Valves HV-4663 A/B are changed to manual actuation. Since the instrument air system is not safety-related,	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			automatic isolation is not required.	
3.9.3	2	3.9-161-3.9.3	Appendix 3B [Am-61] New appen. describing all computer codes along with their verification used by SWEC for requalification of Class 2 and 3 piping and Class 1,2, and 3 pipe supports. All codes listed in this appendix have been used on other dockets by SWEC. All but three codes have been referenced in plant FSARs. The three unreferenced codes are merely utility codes (data processing and/or computational) which are not required to be listed in the FSAR but are listed for completeness.	Addition
3.9.3	3	1AB-16-3.9.3	1A(B)-30 [Am-66] Reflects current design practice; utilizes Winter '78 Addenda to the 1977 Edition of the ASME Boiler and Pressure Vessel Code, App O, Section III, Div. I in lieu of R.G. 1.67. This is acceptable since the NRC withdrew R.G. 1.67 and supported the aforementioned ASME document as having equivalent requirements.	Correction
3.9.3	3	3.7-019-3.9.3	3.7B-22 [Am-66] Expands the commitment on limiting stresses to allow exceeding 90 percent of the yield strength of this material when allowed by the applicable Codes or Standards as committed to elsewhere within the FSAR. This revision makes this portion of the text consistent with the specific stress limits provided elsewhere (e.g., Section 3.9) of the FSAR.	Revision
3.9.3	3	3.9-022-3.9.3	T3.9N-10 [Am-55] (sheet 1) Vent valves 1-HV-3607 thru 3610 are added to the list. The function of containment isolation was added to valve 1-8105.	Update
3.9.3	3	3.9-023-3.9.3	T3.9N-10 [Am-66] (sheet 1) Adds relief valve RC-036 to Table to show that it is required to provide overpressure protection to RCS penetration piping during containment isolation.	Revision
3.9.3	3	3.9-024-3.9.3	T3.9N-10 [Am-55] (sheet 2) CVCS globe valves 8202 and 8210 are changed from air actuated to solenoid valves, and valves 8220 and 8221 are added to the list for ECCS operation.	Update
3.9.3	3	3.9-025-3.9.3	T3.9N-10 [Am-55] (sheet 2) CVCS check valves 8480 in the miniflow lives are added to the list.	Update
3.9.3	3	3.9-026-3.9.3	T3.9N-10 [Am-55] (sheet 3) CVCS valves 8510, 8511 and 8512 are added to the list for pump protection and ECCS operation.	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.9.3	3	3.9-033-3.9.3	T3.9N-10 [Am-66] (sheet 5) Valve 8919, a check valve in the recirculation path is added to the list.	Update
3.9.3	3	3.9-043-3.9.3-Z	T3.9N-15 [Am-55] Snubber US-1 is increased under upset conditions from 48% stressed to 55% stressed. Note b is added.	Update
3.9.3	3	3.9-046-3.9.3-Z	T3.9N-18 [Am-55] Crossover and S.G. inlet restraint loads are not changed. The Primary Shield Wall data is added in its entirety. Notes b, c and d are added. Note a is amended to identify that the percentage given is for the saddle assembly only.	Update
3.9.3	3	3.9-047-3.9.3	T3.9N-21 [Am-68] Incorporation of Table which is a summary of maximum stresses in the Reacotr Coolant Loop piping to complete our commitment provided in Response to NRC Question 112.14.	Update
3.9.3	3	3.9-049-3.9.3	112-14 [am-66] Incorporated Table 3.9N-21, which is a summary of maximum stresses in the Reactor Coclant Loop Piping to complete our commitment provided in Response to NRC question Q112.14.	Update
3.9.3	3	3.9-055-3.9.3	3.9B-13 & 3.9B-14 [Am-61] Removes the previous FSAR restriction that prevents use of plastic analysis for code components. This is not a commitment to use plastic analysis. Any specific usage will be in accordance with the ASME code and will be submitted to the NRC staff for approval as required.	Revision
3.9.3	3	3.9-071-3.9.3	3.9B-27 [Am-66] Revises text to show the removal of table 3.9B-6 and that inactive and active valves are provided with the same stress limits.	Revision
3.9.3	3	3.9-073-3.9.3	3.9B-28 [Am-61] Imposes additional requirements for the analysis fo certain essential systems which result in additional conservatism. These requirements are in accordance with NUREG-0800, Section 3.9.3, Appendix A and assure the operability of essential piping systems during and after a plant accident condition.	Revision
3.9.3	3	3.9-078-3.9.3	3.9B-38 [Am-61] Upgrades fluid transient analysis methods for pressure relieving devices in conformance with Appendix O of AMSE Section III. R.G. 1.67 (the previous CPSES commitment) was superseded by Appendix O of the ASME Code Section III, by NRC letter from Robert Minogue dated April 15, 1983. For open systems, the primary differences	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			are that Appendix O mandates that equation (9) of NC (or ND) 3652 of the ASME Code, Section III be satisfied and specifies additional requirements for safety valve arrangement and dimensions.	
3.9.3	3	3.9-079-3.9.3	3.9B-39 [Am-61] Provides more detail on the design considerations of a closed system. Two specific changes are of note. First, the previous method for computing the transient hydraulic forces is revised to more accurately consider the dynamic effects of transient fluid flow. Specifically, forces attributed to these effects, previously accounted for by the factor K', are not computed directly in the SWEC methodology. Second, the statement that a support will be provided for each straight leg of discharge piping has been eliminated. The need for supports, including those for discharge piping, is determined by analysis. When analysis determines that such a support is required, it is provided. Unnecessary supports have been shown to be detrimental to piping system performance.	Revision
3.9.3	3	3.9-082-3.9.3	3.9B-44 [Am-66] Adds item "b" to allow the use of AISC supplement in analyzing structural tubing. This change is made to refine the analysis of structural tubing utilized in instrument impulse tubing supports for ASME III Class 2 and 3 safety applications.	Revision
3.9.3	3	3.9-084-3.9.3	3.9B-46 (Am-61) Includes references to support revision to page 3.9B-28.	Revision
3.9.3	3	3.9-091-3.9.3	T3.9B-1D T3.9B-1E [Am-61] Removes reference to Experimental STress Analysis from types of analysis performed. Experimental sTress Analysis is an optional analysis allowed by the Code but was never used at CPSES> It was removed from these tables for clarity.	Revision
3.9.3	3	3.9-093-3.9.3	T3.9B-6 [Am-66] Removes Table since Table 3.9B-5 provides design criteria for inactive and active valves.	Revision
3.9.3	3	3.9-094-3.9.3	T3.9B-7 [Am-66] (Sheets 2,3,4&5) Revises Table to show the addition of relief valves to Table 3.9B-7 that provide overpressure protection for the Demineralized Water System, the Chilled Water system, the Service Water System, the Primary Plant Sampling System and the Component Cooling Water System piping.	Revision
3.9.3	3	3.9-096-3.9.3	T3.9B-8 [Am-66] (sheets 1 and 3) Revises Table to reflect addition of relief valves to Service Water and Component Cooling Water Systems to prevent the potential for overpressurization.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.9.3	3	3.9-101-3.9.3	T3.9B-8 [Am-55] (sheet 6) The line item for Reactor Mackup Water Pumps is added as appropriate.	Update
3.9.3	3	3.9-102-3.9.3	T3.9B-8 (sheet 5) [Am-66] Revises Table to delete reference to main steam isolation bypass valves. This revision is part of our response to NRC request for additional information dated February 27, 1986, which was transmitted by our letter TXX-6126 dated December 8, 1986.	Revision
3.9.3	3	3.9-103-3.9.3	T3.9B-8 [Am-66] (sheet 6) Revises Table to show Safeguards Building sump pumps as active components. This classification is consistent with design basis requirement that these sump pumps function to handle specific leakage rates without flooding of adjacent areas.	Revision
3.9.3	3	3.9-110-3.9.3	T3.9B-10 (sheet 2) [Am-55] Safety Valves MS-21 thru MS-25 and MS-58 are added to the list of active valves.	Addition
3.9.3	3	3.9-114-3.9.3	T3.9B-10 (sheets 2&3) [Am-55] All safety valves on this sheet are added to the list of active valves.	Addition
3.9.3	3	3.9-115-3.9.3	T3.9-10 (sheet 4) [Am-55] Check valves MS142 and 143 are added to the list of active valves.	Addition
3.9.3	3	3.9-117-3.9.3	T3.9B-10 (sheet 5) [Am-55] Fire Protection Valves 4075 B/C are added to the list of active valves	Addition
3.9.3	3	3.9-119-3.9.3	T3.9B-10 [Am-68](Shts 4 and 5) Table revised to incorporate 1/2 inch check valves (typical 8 places) that prevent air loss from accummulator air supply to ensure the operability of Steam Generator PORV after loss of Instrument Air.	Addition
3.9.3	3	3.9-120-3.9.3	T3.9B-10 (sheet 5) [Am-55] Valves FW-070, FW-076, FW-082, FW-088, FW-195, FW-196, FW-197, FW-198, FW-199, FW-200, FW-201, FW-202, FW-191, FW-192, FW-193, FW-194, LV-2162, LV-2163, LV-2164, LV-2165 are added to the list	Update
3.9.3	3	3.9-123-3.9.3	T3.9B-10 [Am-55](Sheets 10 & 11) Valves PV-2453 A/B, PV-2454 A/B, HV-2459, HV-2460, HV-2461, HV-2484, HV-2485, AF-045, AF-057, AF-069, AF-167, HV-4777, CT-145, HV-4776, CT-142, HV-4782, HV-4783, CT-076 (HV-4758) and CT-024 (HV-4759) are added to the list of active valves.	Update
3.9.3	3	3.9-124-3.9.3	T3.9B-10 [Am-68](Shts 7, 8, 9 and 10) Table revised to incorporate 1/2 inch valves (typical 16 places) that prevent air loss from accummulator air supply to ensure	Addition

SER	Group	F alcation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			the operability of Auxiliary Feedwater Regulating valves after loss of Instrument Air.	
3.9.3	3	3.9-125-3.9.3	T3.9B-10 [Am-55](Sheet 11) Valves CT-142, HV-4782, HV-4783, CT-076 and CT-024 are added to the list of active valves.	Update
3.9.3	3	3.9-126-3.9.3	T3.9B-10 [Am-55](Sheet 13) Pump recirculation valves FV-4772 and FV-4773 are added to the list of active valves.	Update
3.9.3	3	3.9-131-3.9.3	T3.9B-10 [Am-68](Sheet 10) Table revised to incorporate 1/2 inch check valves (typical 4 places) that prevent air loss from accummulator air supply to ensure the operability of the AFW Turbine Isolation valves after loss of Instrument Air. Valves HV-4663A/B are changed to manual actuation. Since the instrument air system is not safety-related, automatic isolation is not required.	Addition
3.9.3	3	3.9-134-3.9.3	T3.9B-10 [Am-55](Sheet 15) CCWS valves from FV-4537 to HV-are added to reflect the current flow diagram.	Update
3.9.3	3	3.9-135-3.9.3	T3.9B-10 [Am-66](Sht. 15) Provides alternate method of actuation for valves LV- 4500 and LV-4501 in the event instrument air supply is lost.	Revision
3.9.3	3	3.9-136-3.9.3	T3.9B-10 [Am-66](Sht. 16) Adds 4 valves to Component Cooling Water System which are active and provide cooling water to control room air conditioning.	Revision
3.9.3	3	3.9-139-3.9.3	T3.9B-10[Am-55](Sheet 16) SW check valves are added to the list of active valves.	Addition
3.9.3	3	3.9-140-3.9.3	T3.9B-10[Am-55](Sheet 17) SF check valves KSF-160 and KSF-180 are added to the list.	Update
3.9.3	3	3.9-141-3.9.3	T3.9B-10[Am-66](Sheet 16) The Service Water System is designed for continuous flow through the Diesel Jacket Water Heat Exchangers. The list of active valves is being updated to indicate the normal open position for valves HV-4393 and HV-4394.	Revision
3.9.3	3	3.9-142-3.9.3	T3.9B-10[Am-68](Sheet 12) Valve identification and train function revised for two valves (Diaphragm Motor) to correspond to the containment spray system flow diagram. (Ct-135& -136)	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.9.3	3	3.9-143-3.9.3	T3.9B-10[Am-55](Sheet 17 and 18) DD check valves DD-016, DD-018, DD-044 and DD-048 are added to the list of active valves. DO check valves DO-049 and -050 are added to the list of active valves.	Update
3.9.3	3	3.9-144-3.9.3	T3.9B-10 (sht 16,21 and 22) [Am-66] Corrects indicated normal position for valves to open based upon flow diagrams and design basis documents.	Correction
3.9.3	3	3.9-145-3.9.3	T3.9B-10 (sheet 19) [Am-66] Adds 8 valves with in the Diesel Generator Fuel Oil System defined as starting air pressure boundary self-actuated active check.	Revision
3.9.3	3	3.9-146-3.9.3	T3.9B-10 (sheet 20) [Am-66] Revises table to incorporate relief valve PS-193 to Process Sampling Primary Plant System. Relief valve provides protection from over pressurization during Containment Isolation.	Revision
3.9.3	3	3.9-148-3.9.3	T3.9B-10 (sheet 20) [Am-55] Valve HV-4182 is added to the list of active valves.	Update
3.9.3	3	3.9-149-3.9.3	T3.9B-10-10 (sheet 14) [Am-68] Table is revised to incorporate the addition of active relief valve CC-1067 provided to prevent overpressurization in Component Cooling Water penetration piping during Containment isolation.	Revision
3.9.3	3	3.9-150-3.9.3	T3.9B-10 (sheets 20 & 21) [Am-55] CH check valves as listed from XCH-302 to CH-301 are added to the list of active valves.	Addition
3.9.3	3	3.9-151-3.9.3	T3.9B-10 (sheet 21) [Am-55] Remote manual valve HV-6720 is added to the list of active valves required for emergency makeup water.	Addition
3.9.3	3	3.9-152-3.9.3	T3.9B-10 (sheet 22) [Am-55] Hydrogen purge valves XHV-5526, 5529, 5579 and 5580 are added to the list of active valves.	Addition
3.9.3	3	3.9-153-3.9.3	T3.9B-10 (sheet 22) [Am-55] Drain valves HV-7311 and HV-7312 are added to the list of active valves for containment isolation.	Addition
3.9.3	3	3.9-155-3.9.3	T3.9B-10 (sheet 17) [Am-68] Table revised to incorporate 3/4 inch check valves (typical 4 places) that close on a non-safety line break to maintain nitrogen accumulator pressure.	Addition
3.9.3	3	3.9-156-3.9.3	T3.9B-10 (sheet 17) [Am-68] Revises this Table to show the addition of active relief valve DD-430 to Demineralized Water System penetration piping to prevent	Addition

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			overpressurization during containment isolation.	
3.9.3	3	3.9-157-3.9.3	T3.9B-10 (sheet 18 & 19) [Am-68] Table revised to incorporate 1/2 inch check valves (typical 4 places) that prevent accumulator air loss for Control Room Damper after a non-safety air line break.	Revision
3.9.3	3	3.9-159-3.9.3	T3.9B-10 (sheet 20) [Am-68] Revises Table to show the addition of active relief valves to chilled water penetration piping, classified as active valves to prevent overpressurization during containment isolation.	Revision
3.9.3	4	1AN-3-3.9.3	1A(N)-31 [Am-55] a. Makes minor editorial changes. b. Clarifies how ASME code cases are used and documented and where applicable code cases are identified.	Clarification
3.9.3	4	1AN-6-3.9.3	1A(N)-46 [Am-55] Updates description at CPSES implementation of code cases, editions and addenda. Deletes "Also" from "Also refer to...". Deletes discussion on ASME Code Cases identified in mechanical specification or Brown and Root QA Manual.	Clarification
3.9.3	4	3.9-018-3.9.3	T3.9N-2 [Am-68] A note is added to the Table to clarify that the consideration of the OBE for class 1 piping and valves consistent with the design basis is in agreement with the ASME Code Section III Division 1 and CPSE class 1 piping and valve specification. Westinghouse class 1 piping and valve specifications (E-Specs.) do not include the OBE in the Design Condition loading combination for which Service Level A (Normal) limits are applicable. Rather, the OBE is included in the Upset Service Condition loading combination for which Service Level B (Upset) limits are applicable. This treatment of the OBE is consistent with both Regulatory Guide 1.48, Regulatory Positions C.1 and C.2; the Standard Review Plan, Appendix A, Section 1.3.2; and the FSAR Section 1A(N) discussion of Regulatory Guide 1.48. The ASME Code Section III Division 1 provisions further support that the treatment of OBE for class 1 piping and valves at CPSES is in compliance with code requirements.	Clarification
3.9.3	4	3.9-019-3.9.3	T3.9N-4 [Am-61] The title of the Table is clarified to show that it does not address piping. A third footnote is added to show where information can be found for Class 2 and 3 piping and pipe supports.	Clarification
3.9.3	4	3.9-020-3.9.3	T3.9N-5 [Am-68] ASME stress limits previously referenced by the Table are directly incorporated into the Table for clarity.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.9.3	4	3.9-021-3.9.3	T3.9N-10 [Am-66] Deletion of numerical prefix of valves to show table applicability to Units 1 and 2. Also revised, as indicated, method of actuation to be consistent throughout the list (for example: check and relief valves are considered self-actuating).	Clarification
3.9.3	4	3.9-028-3.9.3	T3.9N-10 [Am-55] (sheet 3) A notation was added indicating that valves 8804 and 8806 are a part of the recirculation boundary.	Update
3.9.3	4	3.9-029-3.9.3	T3.9N-10 [Am-55] (sheet 4) A notation is added to valves 8807A/B indicating that they are used in recirculation.	Update
3.9.3	4	3.9-030-3.9.3	T3.9N-10 [Am-55] (sheet 4) A notation is added to valve 8840 indicating that it is used in hot leg recirculation.	Update
3.9.3	4	3.9-031-3.9.3	T3.9N-10 [Am-66] (sheet 5) Valves 8875 for accumulator venting are not required on the active valves list and are removed.	Update
3.9.3	4	3.9-032-3.9.3	T3.9N-10 [Am-66] (sheet 5) A notation is added to valves 8900 and 8905 indicating that they are part of the RCS pressure boundary.	Update
3.9.3	4	3.9-034-3.9.3	T3.9N-10 [Am-55] (sheet 6) "T" signal changed to "Phase A" signal in the bases for valve 8964. Note 1 is added to the list.	Editorial
3.9.3	4	3.9-056-3.9.3	3.9B-15 [Am-66] Deletes 3.9B.1.4.2d which addressed anchor bolts because it was inappropriately incorporated in response to NRC question Q112.13 which specified component bolting and did not question anchorage bolting (example: Hilti installations)	Correction
3.9.3	4	3.9-069-3.9.3	3.9B-26 [Am-68] Provides a commitment to update the FSAR concerning the usage of code cases N-318, N-397 and N-411 in the design of piping and pipe supports in a future FSAR amendment.	Update
3.9.3	4	3.9-074-3.9.3	3.9B-31 [Am-66] The sentence was improperly worded and has been organized to clarify its meaning. This is not a technical change.	Clarification
3.9.3	4	3.9-077-3.9.3	3.9B-37 [Am-61] Changes the title of Section 3.9B.3.3 Adds the word "active" to clarify that operability is demonstrated for	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-88)	Change Classification
			safety-related "active" valves as discussed in the prior test.	
3.9.3	4	3.9-080-3.9.3	3.9B-40 thru 43 [Am-61] Clarifies the existing section. The clarification includes: renumbering items in 3.9B.3.4.1; reformatting Section 3.9B.3.4 for consistency and ease of locating areas of interest; correcting a referenced Code paragraph from NF-3320 to NF-3230; further specifying a referenced Code paragraph from NF-3231 to NF-3231.1b; replacing existing paragraph under linear supports, faulted condition, to more clearly define allowable stresses.	Clarification er
3.9.3	4	3.9-081-3.9.3	3.9B-30 [Am-66] Corrects Table references.	Editorial
3.9.3	4	3.9-095-3.9.3	T3.9B-8 [Am-55] The Table is re-typed as a part of the updating of the BOP active valve listing.	Editorial
3.9.3	4	3.9-097-3.9.3	T3.9B-8 [Am-55] (sheet 2) Recognizes that some of the containment isolation valves are not activ	Update
3.9.3	4	3.9-098-3.9.3	T3.9B-8 [Am-55] (sheet 3) Removes entries a and d for sampling system valves that are part of the R. C. pressure boundary and "other sampling system valves" The containment isolation valves and RHR loop connection valves are retained with the same class and operation.	Update
3.9.3	4	3.9-099-3.9.3	T3.9B-8 [Am-55] (Sheet 3) The designation is changed for sampling system isolation valves from "system isolation" to "containment isolation" The line "Containment Isolation Valves" under "Feedwater System Valves" is deleted.	Editorial
3.9.3	4	3.9-100-3.9.3	T3.9B-8 [Am-55] (sheet 5) The compressed air system valves are deleted from the list of active valves. The system is not required to operate. The feedwater and Saety Injection System valves are removed from the list entirely. The feedwater System valves are listed on sheet 3; the Safety Injection System is part of the NSSS covered by Table 3.9N-10.	Update
3.9.3	4	3.9-104-3.9.3	T3.9B-10 [Am-65] Table is being reissued with new format for change bars and sheets renumbered.	Editorial
3.9.3	4	3.9-105-3.9.3	T3.9B-10 [Am-66] This table is being reissued in the computerized format.	Editorial
3.9.3	4	3.9-107-3.9.3	T3.9B-10 [Am-66](Sht. 1) Clarifies steam generator PORV (atmospheric dump) function (typical four places).	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.9.3	4	3.9-108-3.9.3	T3.9B-10 [Am-55](Sheet 1) The function of all valves on this sheet was formerly given as "containment isolation". While this is true, it is not definitive. the functions are updated to describe the nature of the line which is isolated.	Clarification
3.9.3	4	3.9-109-3.9.3	T3.9B-10 [Am-55](Sheets 1&2) The function of valves 2399 thru 2404A/B was formerly given a "contain isolation". While this is true, it is not definitive. The function is updated to "Aux. Feedwater Sys Actuation."	Clarification
3.9.3	4	3.9-111-3.9.3	T3.9B-10 (sheets 2thru7,10,11,15thru18,20,21) [Am-66] Method of actuation designated for check and relief valves previously designated as "^p" are changed to show that they are "self-actuating"	Clarification
3.9.3	4	3.9-111-3.9.3	T3.9N-10 [Am-66] (sheet 5) A notation is added to valves 8841 A/B indicating that they are part of the RCS pressure boundary. "T" signal changed to "Phase A" signal in the bases for valves 8843, 8871 and 8880.	Update
3.9.3	4	3.9-112-3.9.3	T3.9B-10 (sheets 2thru7,10thru13,15thru18,20-22) [Am-66] Eliminates of Unit 1 numerical prefix to valve tag numbers, since this table listing is applicable to Units 1 and 2.	Clarification
3.9.3	4	3.9-113-3.9.3	T3.9B-10 (sheets 2,5,13,15-18,21,22) [Am-66] Deletes duplicated valve listings, corrected valve tag numbering errors and reinserted valves mistakenly removed.	Editorial
3.9.3	4	3.9-118-3.9.3	T3.9B-10 (sheet 5) [Am-56] Valves 2134 and 2135 were on the original list, but have been given a more definitive function.	Clarification
3.9.3	4	3.9-121-3.9.3	T3.9B-10 [Am-66](Sht. 6) Eliminates four non-nuclear safety valves that did not satisfy the prerequisites for being listed as active valves consistent with the requirements of FSAR Section 3.9B.3.	Correction
3.9.3	4	3.9-122-3.9.3	T3.9B-10 [Am-55](Sheet 6&7) The word "alternate" is eliminated from the function description of valves AF-014, AF-024 and AF-032.	Editorial
3.9.3	4	3.9-128-3.9.3	T3.9B-10 [Am-55](Sheet 14) The function of valve HV-4699 is clarified as "CCW System Isolation" from the more general "containment isolation."	Clarification
3.9.3	4	3.9-129-3.9.3	T3.9B-10 [Am-55](Sheet 14) The function of valves HV-4514 and HV-4515 is clarified to indicate isolation of Train A and Train B, respectively.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.9.3	4	3.9-130-3.9.3	T3.9B-10 [Am-55](Sheet 14) The function of valves HV-4512 and HV-4513 is clarified to indicate isolation function.	Clarification
3.9.3	4	3.9-132-3.9.3	T3.9B-10 (sheet 15) [Am-55] Valves HV-4631 A/B are not changed.	Editorial
3.9.3	4	3.9-137-3.9.3	T3.9B-10[Am-55](Sheet 12) The function of valves HV-4395 and 4396 is changed to show the function as "alternate AFW flow path" instead of "SW flow path."	Update
3.9.3	4	3.9-138-3.9.3	T3.9B-10[Am-55](Sheet 12) SW Valves HV-4252 and 4253 were previously listed as PV-4252 and 4253.	Correction
3.9.3	4	3.9-147-3.9.3	T3.9B-10 (sheets 18,21 and 22) [Am-66] Corrects valves system designation based on flow diagrams and design basis documents.	Correction
3.9.3	4	3.9-154-3.9.3	T3.9B-10 (sheet 23) [Am-66] Adds two non-technical table notes.	Clarification
3.9.3	4	3.9-158-3.9.3	T3.9B-10 (sheet 20) [Am-68] Eliminate numerical prefix indicating Unit 1 since tag number applies to Unit 2 also.	Clarification
3.9.3	4	3.9-160-3.9.3	T3.9B-10 (sheet 23) [Am-55] System symbols are added to the listing for the Chemical and Volume Control, Fire Protection and Waste Processing Systems.	Addition

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.9.6	4	3.9-083-3.9.6	3.9B-44 and 46 [Am-66] This change provides a clearer description in reference to 10CFR50.55a which could cause confusion or misinterpretation. 10CFR50.55a provides requirements for the Edition and Addenda of ASME Section XI to be applied during inservice and preservice inspection. It is unnecessary and impractical to state a particular code year in the FSAR because the applicable Code year is established based upon issuance of the operating license and reestablished on a 10-year interval basis.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.10	2	3.10-001-3.10	3.10B-1 [Am-66] Reclassifies AC Essential Lighting System and DC Emergency Lighting System as non-Class 1E. (see evaluation no. 1A(B)-25-9.5.3) The primary location for this change is covered by SER 9.5.3	Revision
3.10	2	3.10-002-3.10	3.10B-7 [Am-66] Clarifies that a frequency analysis may be used for design in place of the "g" peak. Using the "g" peak is merely a simplified and conservative approach to the design problem. Using the frequency analysis approach is more complex and more realistic. It is prudent to use the frequency analysis method at this time in lieu of modifying otherwise acceptable designs. The frequency analysis approach has been previously discussed in other parts of the section (3.10B.3).	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.11	2	1AB-35-3.11	1A(B)-70, -71 [Am-66] Revises commitment to Regulatory Guide 1.131 for Raychem Corp. Heat Shrinkable Field Splicing System for Class 1E Electric Cables (Type WCSF-N). Subject splices were flammability tested in accordance with IEEE Std. 383-1974. Regulatory Guide 1.131 amends portions of this standard. Therefore, the flame test conducted does not meet the requirements of the Regulatory Guide. The additional requirements of the Regulatory Guide do not justify replacing existing Raychem field splices which met the IEEE testing requirements.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.11.3	2	3.11-2-3.11.3-A	3.11N-1 [Am-68] T3.11N-1,2 & 3 [Am-68] Reflects new consolidated table Appendix 3A Table 4-1.	Revision
3.11.3	2	3.11-4-3.11.3	3.11N-2 [Am-68] Describes qualification program as applied to Class 1E equipment located in a mild environment.	Revision
3.11.3	2	3.11-12-3.11.3	3.11B-2 [Am-66] Defines potentially harsh and mild environment areas at CPSES.	Revision
3.11.3	2	3.11-15-3.11.3	3.11B-3 [Am-66] Describes how flooding due to DBA or a MELB is addressed. In TXX-6884, MELB's had previously been included with DBA's. MELB's (and the potential flooding that can result) are addressed by the CPSES System Interaction Program (See FSAR Section 3.6). Flooding due to a DBA is addressed by the Environmental Qualification Program.	Correction
3.11.3	2	3.11-18-3.11.3	3.11B-4 [Am-66] Deletes reference to Table 3.11B-5 which has been incorporated into the Appendix 3A, Table 4-1. A separated description of HELB is not required as it has been-incorporated with the rest of the environmental qualification program.	Revision
3.11.3	2	3.11-28-3.11.3	3.11B-8 & 3.11B-9 [Am-66] Describes qualification program as applied to Class 1E equipment located in a mild environment area.	Revision
3.11.3	2	3.11-34-3.11.3	3.11B-12 [Am-66] Lower limit operating temperatures, relative humidity and operating pressures modified to reflect plant service conditions.	Update
3.11.3	2	3.11-35-3.11.3	3.11B-13 [Am-66] Section rewritten to reflect revised plant service conditions for chemical environment.	Revision
3.11.3	2	3.11-44-3.11.3	Appendix 3A 1-1, 1-1a, 1-1b, 1-1c, 1-2 [Am-66] Defines mild environment areas at CPSES.	Revision
3.11.3	2	3.11-47-3.11.3	Appendix 3A 1-1 [Am-66] Deletes Moderate Energy Line Crack design basis accident for a potentially harsh environment.	Revision
3.11.3	2	3.11-48-3.11.3	Appendix 3A, T3-1 [Am-66] (Shts. 1, 4, 5, 8-15) Provides additional information on the assumptions used to calculate model and develop various profiles which affect	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			equipment qualification (i.e., radiation, temperature, pressure).	
3.11.3	2	3.11-54-3.11.3	Appendix 3A 2-3 [Am-66] Defines the difference in application for potentially harsh and mild environments.	Addition
3.11.3	2	3.11-56-3.11.3	Appendix 3A T3-1 [Am-66] (Sht. 22) Descripes how flooding due to DBA or a MELB is addressed. In TXX-6884, MELB's had previously been included with DBA's. MELB's (and the potential flooding that can result) is addressed by the CPSES System Interaction Program.	Revision
3.11.3	2	3.11-58-3.11.3	Appendix 3A T3-1 [Am-66](Sht. 30) 10 degrees C rule is not used for environmental equipment qualification and was therefore deleted from this section.	Revision
3.11.3	2	3.11-68-3.11.3	140-1 [Am-55] Adds the total response to NRR question 140.1 concerning the impact of a MSLB on qualified equipment outside containment.	Addition
3.11.3	3	3.11-3-3.11.3	3.11N-2 [Am-68] Reflects a current status of WCAP-8587 and the new consolidated table, Table 4-1, where the NSSS equipment is listed.	Update
3.11.3	3	3.11-10-3.11.3	3.11B-1 [Am-56] Adds loss of ventilation as postulated event that can cause environmental changes to areas outside the containment and provides FSAR section that discusses event.	Correction
3.11.3	3	3.11-11-3.11.3	3.11B-1 [Am-66] Adds abnormal conditions as environmental conditions that should be considered when determining equipment performance.	Addition
3.11.3	3	3.11-26-3.11.3	3.11B-7 [Am-66] Reworded paragraph to include the non-Class 1E Accident Monitoring equipment in a potentially harsh environment qualification requirements.	Correction
3.11.3	3	3.11-27-3.11.3	3.11B-10, 11 [Am-56] Provides additional discussion on 1) Areas with Emergency Fan Coil Units; and 2) Areas without Emergency Fan Coil Units.	Correction
3.11.3	3	3.11-30-3.11.3	3.11B-9 [Am-66] Inserts "in a potentially harsh environments" as appropriate for program consistency with the definition of mild environment areas.	Addition
3.11.3	3	3.11-33-3.11.3	3.11B-10 & 3.11B-11 [Am-66] Equipment which is not code safety-related ventilation is qualified for the environment that results from the loss of ventilation	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			due to a LOCA with loss of offsite power. Deleted 72 hour restoration time for forced-air ventilation and the 30 day restoration time for normal ventilation following a LOCA with loss of offsite power.	
3.11.3	3	3.11-37-3.11.3	3.11B-13 [Am-66] Deletes the statement that the radiation calculations did not take credit for containment spray or plateout. Radioactivity removal by containment spray and plateout was included as allowed by NUREG-0588.	Correction
3.11.3	3	3.11-38-3.11.3	3.11B-15 [Am-55] Adds updated reference to IEEE 450-1980 from the 1972 version.	Update
3.11.3	3	3.11-50-3.11.3	Appendix 3A 2-1 [Am-66] Summarizes the scope of the consolidated BOP and NSSS programs instead of addressing the BOP scope alone. Also updates the number of qualification packages for BOP and NSSS.	Update
3.11.3	3	3.11-55-3.11.3	Appendix 3A 3-1 [Am-66](Shts. 1, 4, 5, 8 thru 15) Sentence added to clarify scope of environmental qualification program for equipment located in mild environment.	Addition
3.11.3	3	3.11-57-3.11.3	Appendix 3A T3-1 [Am-66](Sht. 25) Adds that Cesium-137 is used as a radiation source for environmental equipment qualification. The use of Cesium-137 has been accepted by the NRC in Reg. Guide 1.89, Rev. 1.	Revision
3.11.3	3	3.11-59-3.11.3	Appendix 3A T3-1 [Am-66](Sht. 33) Provides a clear statement that the CPSES documentation complies with the requirements of IEEE Std. 323-1974.	Correction
3.11.3	3	3.11-60-3.11.3	Appendix 3A T3-2 [Am-66](Shts. 21 thru 24) Deletes the generic Westinghouse response and refers to Table 3-1 where a CPSES plant specific response is provided.	Correction
3.11.3	3	3.11-61-3.11.3	Appendix 3A T3-2 [Am-66](Sht. 28) Deletes statement regarding equipment being located above the flood level and refers to Table 3-1 which in turn refers to the FSAR text that discusses flooding.	Revision
3.11.3	3	3.11-62-3.11.3	Appendix 3A T3-2 [Am-66](Shts. 36 and 37) Updates the description of qualification methods by referencing Table 3-1.	Correction
3.11.3	3	3.11-63-3.11.3	Appendix 3A T3-2 [Am-66](Shts. 37 and 38) Deletes the discussion on the relationship between the generic Westinghouse program with respect to the CPSES plant specific	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			parameters.	
3.11.3	3	3.11-65-3.11.3	Appendix 3A Part 4.0[Am-66](Sht. 4-1) Deletes the equipment qualification status list provided in the old Section 4.0. All equipment will be qualified prior to fuel load and status maintenance in the Equipment Qualification documentation at CPSES.	Revision
3.11.3	3	3.11-66-3.11.3	Appendix 3A T4-1 [Am-66](Shts. 1 thru 36) Replaces Tables 5-1 and 5-2 with a new consolidated Table 4-1. This table incorporates information previously provided in several different tables of the FSAR. The table retains the basic format used in the deleted Tables 5-1 and and 5-2 but presents the postulated design information only. The results are located in the Environmental equipment Qualification Summary Packages at CPSES.	Revision
3.11.3	3	3.11-67-3.11.3	Appendix 3A Part 6.0and 7.0 [Am-66](Shts. 6-1 and 7-1) Parts 6.0 and 7.0 of Appendix 3A have been deleted. These sections previously described the the procedures used to perform environmental qualification reviews and acceptance. The procedures used in environmental qualification are available on site.	Revision
3.11.3	4	3.11-5-3.11.3	3.11N-3 [Am-68] Adds reference to the Environmental Equipment Qualification Summary Packages (EQSP) and the new Appendix 3A Table 4-1.	Revision
3.11.3	4	3.11-6-3.11.3	3.11N-3 [Am-68] Corrects reference from 3 to 1 since the Environmental Qualification Data Packages are supplements to the basic WCAP.	Revision
3.11.3	4	3.11-7-3.11.3	3.11N-3 [Am-68] Deleted references to the EQDP's for radiation and chemical environment used in NSSS equipment qualification program. This information has been incorporate into Appendix 3A Table 4-1.	Revision
3.11.3	4	3.11-13-3.11.3	3.11B-2 [Am-68] A portion of this sentence was unintentionally omitted in A66 and is being added.	Correction
3.11.3	4	3.11-14-3.11.3	3.11B-2 [Am-68] Part "a" of the definition of a potentially harsh environment should define "pressure" limitations not "temperature".	Correction
3.11.3	4	3.11-16-3.11.3	3.11B-3 [Am-66] Identifies Environmental Equipment Qualification Summary Packages to reflect current CPSES file designation.	Correction
3.11.3	4	3.11-17-3.11.3	3.11B-3 [Am-66] Inserts "a potentially harsh environments" as appropriate for program consistency with the definition of mild environment areas.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.11.3	4	3.11-19-3.11.3	3.11B-4 [Am-68] Part "2a" of the ESF safety related equipment ouside containment that must remain operational during or following a DBA was unintentionally omitted in A66 and is being added.	Correction
3.11.3	4	3.11-20-3.11.3	3.11B-5 [Am-66] TUGCO changed to TU Electric. Revision: Updates the discussion on qualified life to address EEQSP's.	Revision
3.11.3	4	3.11-21-3.11.3	3.11B-5, 6, 7, 11, 13 [Am-66] Revise table references to new consolidated Appendix 3A, Table 4-1.	Correction
3.11.3	4	3.11-22-3.11.3	3.11B-5 [Am-68] The word "Summary" was unintentionally omitted in the title of Environmental Equipment Qualification Summary Packages in A66 and is being added.	Correction
3.11.3	4	3.11-23-3.11.3	3.11B-6 [Am-66] Corrected typographical error from Category "1" to Category " I". Non-technical change.	Editorial
3.11.3	4	3.11-24-3.11.3	3.11B-9 [Am-56] Clarifies that the plant is designed to prohibit ambient temperatures from exceeding temperature limits for instrumentation and electrical equipment.	Clarification
3.11.3	4	3.11-25-3.11.3	3.11B-10 [Am-56] Changes statement from "...without loss of function." to "...without loss of safety function."	Editorial
3.11.3	4	3.11-29-3.11.3	3.11B-9 [Am-66] Adds a reference to Regulatory Guide 1.100. This addition is consistant with revised description of Class 1E equipment located in a mild environment area.	Addition
3.11.3	4	3.11-31-3.11.3	3.11B-9 [Am-66] Adds a reference to the Environmental Equipment Qualification Summary Packages which identifies these results and analysis. This information is removed from current FSAR tables.	Addition
3.11.3	4	3.11-32-3.11.3	3.11B-9 [Am-68] The word "Equipment" was unintentionally omitted in the title of Environmental Equipment Qualification Summary Packages in A66 and is being added.	Correction
3.11.3	4	3.11-36-3.11.3	3.11B-12 [Am-66] Incorporates reference to updated Westinghouse Radiation Analysis manual.	Addition

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
3.11.3	4	3.11-39-3.11.3	T3.11B-2 [Am-66] Deletes Table 3.11B-2 because information is provided in Section 9.4.	Correction
3.11.3	4	3.11-40-3.11.3	T3.11B-4 [Am-66] Deletes Table 3.11B-4. Active values are discussed in Section 3.0 and 6.2. The environmental parameters have been consolidated in appendix 3A, Table 4-1.	Correction
3.11.3	4	3.11-41-3.11.3	T3.11B-5 [Am-66] Tables deleted and data consolidated in Appendix 3A, Table 4-1.	Correction
3.11.3	4	3.11-42-3.11.3	Appendix 3A 1-1 [Am-68] References summary data for Class 1E equipment located in a potentially harsh environment in Table 4-1.	Addition
3.11.3	4	3.11-43-3.11.3	Appendix 3A 1-1 [Am-66] Changes "equipment" to "systems" to be consistent with Section 7.4.	Clarification
3.11.3	4	3.11-45-3.11.3	Appendix 3A 1-1 [Am-68] The word "potentially" was unintentionally omitted in the reference to a potentially harsh environment.	Correction
3.11.3	4	3.11-46-3.11.3	Appendix 3A 1-1b[Am-66] Adds reference to the Environmental Equipment Qualification Summary Packages.	Correction
3.11.3	4	3.11-49-3.11.3	Appendix 3A 2-1, 2-2 [Am-66] Deleted historical reference to the original AE and replace with TU Electric.	Update
3.11.3	4	3.11-51-3.11.3	Appendix 3A 2-3 [Am-66] Deletes discussion concerning deleted Section 4.0, 6.0 and 7.0 which have also been deleted.	Correction
3.11.3	4	3.11-52-3.11.3	Appendix 3A 2-3 [Am-66] Adds specific reference to the Environmental Equipment Qualification Summary Packages.	Correction
3.11.3	4	3.11-53-3.11.3	Appendix 3A 2-3 [Am-66] Deletes reference to the environmental qualification data previously described in Tables 5-1 and 5-2.	Correction
3.11.3	4	3.11-64-3.11.3	Appendix 3A T3-2 [Am-66](Sht. 46) Deletes the redundant phrase "the use of materials and components."	Editorial

SER Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification

Total Records Processed : 604

Chapter 03
EVALUATIONS SUMMARY BY ALPHA DESIGNATOR

ALPHA	GROUPS 1	2	3	4	TOTAL
		93	150	227	470
A		23	1	2	26
B			4		4
C		2			2
D				2	2
E	2				2
F			3	15	18
G		8		3	11
H			2	2	4
I				4	4
J		3		1	4
K			2	1	3
L			2		2
M		2			2
N		2		2	4
O			2		2
P		1		2	3
Q		1		4	5
R		1		3	4
S		2			2
T				9	9
U		1	2	1	4
V		1	1		2
W		2			2
X		1		1	2
Y		2		1	3

Chapter 03
EVALUATIONS SUMMARY BY ALPHA DESIGNATOR

ALPHA	GROUPS 1	2	3	4	TOTAL
Z	5		2		7
z	1				1
Totals :	8	145	171	280	604
Factored Totals :	3	108	160	243	514

TU Electric

FSAR Change Review Information

EVALUATIONS SUMMARY BY GROUP

Chapter : 03

SER	GROUPS 1	2	3	4	TOTAL
03.01.0		11	5	7	23
03.02.0				1	1
03.02.1		3	10	8	21
03.02.2		9	26	54	89
03.03.0				1	1
03.03.1			2		2
03.03.2		9	7	8	24
03.05.0				1	1
03.05.2	2				2
03.05.3			1		1
03.06.0		11	9	5	25
03.06.1		2	4	1	7
03.06.2		3	2	2	7
03.07.0				3	3
03.07.1		4		13	17
03.07.2		4	8	13	25

TU Electric FSAR Change Review Information

EVALUATIONS SUMMARY BY GROUP

Chapter : 03

SER	GROUPS 1	2	3	4	TOTAL
03.07.3		10		10	20
03.08.0				1	1
03.08.1		16	4	28	48
03.08.2		6	6	17	29
03.08.3		6	3	7	16
03.08.4		1			1
03.09.1		2		3	5
03.09.2		6	6	21	33
03.09.3	6	24	58	45	133
03.09.6				1	1
03.10.0		2			2
03.11.0		1			1
03.11.3		15	20	30	65
TOTAL :	8	145	171	280	604

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
4.0	2	4-013-4.0	491-2 [Am-57] Deletes those activities associated with the first time use of hafnium control rods. CPSES is no longer the lead plant.	Revision
4.0	4	4-010-4.0	Appendix 4A [Am-66] FSAR Appendix 4A has not changed since it was introduced with Amendment 15, 2/20/81.	No Change

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
4.1	4	4-001-4.1	Section 4.1 [Am-66] No changes to FSAR Section 4.1 since Amendment 46 2/10/28.	No Change

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
4.2	4	4-002-4.2	Section 4.2 [Am-66] Section 4.2 reissued in computerized format as part of Amendment 66.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
4.2.5	4	4-003-4.2.5	4.2-60 [Am-66] Changes this paragraph to agree with FSAR T14.2-3, the initial start-up test summary entitled "Rod Drop Tests." Also provides agreement with the method described in R.G. 1.68, Rev. 2, App. A, paragraph 2b.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
4.3	4	4-004-4.3	Section 4.3 [Am-55] No change to FSAR Section 4.3 text since Amendment 46 2/10/84.	No Change
4.3	4	4-005-4.3	T4.3-3A and T4.3-3B [Am-55] The titles of the tables were changed from "Reactivity Requirements for RCCA for Unit 1" and from "Reactivity Requirements for RCCA for Unit 2" to "Typical Reactivity Parameters for RCCA" without changing the values presented.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
4.4	4	4-006-4.4	Sec. 4.4 [Am-66] Section 4.4 reissued in computerized format as part of Amendment 66.	Editorial
4.4	4	4-007-4.4	4.4-55 [Am-66] Updates FSAR to reflect current testing methodology for obtaining Reactor Coolant flow measurement. Replaces discussion of loop pressure drop data and coolant pump performance data with a discussion based on differential pressure data.	Correction
4.4	4	4-011-4.4	220-2 [Am-66] Adds a reference to Section 4.4.6.4 for description.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
4.4.4	3	4-012-4.4.4	233-1 [Am-55] Allows background readings for the Loose Parts Monitor to be taken during startup testing instead of after fuel load.	Update
4.4.4	4	4-008-4.4.4	4.4-59 [Am-66] SER 4.4.4 page 4-18 Provides clear description of the Loose Parts Monitoring System installation at CPSES. The system is installed non safety related (non-seismic).	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
4.5	4	4-009-4.5	Section 4.5 and 4.6 [Am-66] FSAR Section 4.5 and Section 4.6 have not changed.	No Change

TU Electric FSAR Change Review Information Chapter : 04 Page: 9

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification

Total Records Processed : 13

TU Electric FSAR Change Review

Chapter 04

EVALUATIONS SUMMARY BY ALPHA DESIGNATOR

ALPHA	GROUPS 1	2	3	4	TOTAL
		1	1	11	13
Totals :		1	1	11	13
Factored Totals :		1	1	11	13

TU Electric FSAR Change Review Information

EVALUATIONS SUMMARY BY GROUP

Chapter : 04

SER	GROUPS 1	2	3	4	TOTAL
04.00.0		1		1	2
04.01.0				1	1
04.02.0				1	1
04.02.5				1	1
04.03.0				2	2
04.04.0				3	3
04.04.4			1	1	2
04.05.0				1	1
TOTAL :		1	1	11	13

TU Electric FSAR Change Review Information Chapter : 05 Page: 1

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
5.1	4	5.1-001-5.1-A	5.1-9 [Am-66] Deletes reference to sheet 3 of Figure 5.1-1. This sheet duplicates information already contained in sheet 2.	Correction
5.1	4	5.1-006-5.1-A	F5.1-1 [Am-66] Deletes sheet 3. This sheet duplicates information already contained in sheet 2.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
5.2	3	5.1-003-5.2-H	F5.1-1 [Am-67](Sht 1 & 2) Revises figure to show additional manual isolation valves as "Locked Closed".	Revision
5.2	3	5.1-004-5.2	F5.1-1 [Am-67] (Sht. 1 and 2) Deletes remote operator symbols and the reference to note 14 on valves 1RC-8051 and 1RC-8052. Also deleted note 14 which referenced position locking devices. The remote operators and position locking devices for these valves were previously deleted.	Correction
5.2	3	5.1-007-5.2	F5.1-1 [Am-67](Sheet 2) Revises drawing to show the system breaks between the Reactor Coolant System and the Process Sampling System.	Revision
5.2	3	5.4-027-5.2-H	F5.4-6 [Am-67] Revises drawing to indicate manual isolation valves used as the Safety Class 2 interface are locked closed as required by GDC 56. Also the vent, drain and test connection valves have been revised to show class 2 interfaces where necessary.	Correction
5.2	4	5.1-008-5.2	F5.1-2 [Am-67] Editorial and various minor changes.	Editorial
5.2	4	5.2-015-5.2	T5.2-2 [Am-66] Table 5.2-2 is being reissued with new format for change bars, sheets renumbered and typographical errors corrected.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
5.2.1	2	5.2-001-5.2.1	5.2-2 [Am-59] Adds a reference to the Response to Q005.4 which gives a list of all ASME code cases applicable to Class I equipment.	Addition
5.2.1	3	5.2-014-5.2.1	T5.2-1 [Am-57] Update The ASME code applicable to reactor coolant pipe is updated from Summer 74 to Winter 75.	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
5.2.2	2	5.2-002-5.2.2	5.2-13 [Am-66] Revises the temperature at which power lockout of the accumulator isolation valves and the non-operating charging pump must be performed. The temperature was revised from 425 degrees to 350 degrees to be consistent with the Technical Specification requirement that both Trains of pumps must be operable in Mode 3. The SER indicates that the accumulators and the charging pumps not required to be operable are locked out at 425 F. SER/SSER IMPACT: SER Subsection 5.2.2.2, page 5-4, first paragraph is not consistent as a result of this change.	Revision
5.2.2	3	5.1-005-5.2.2	F5.1-1 [Am-67](Sht 1 & 2) Adds thermal relief valve 1RC-036 for overpressure protection. Updates figures to reflect as-built conditions.	Addition
5.2.2	4	17A-005-5.2.2	T17A-1 [Am-66](Sht. 1) This change corrects the typographical error regarding the PORV Accumulator Code Class.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
5.2.3	3	5.2-018-5.2.3	T5.2-5 [Am-66](Sht 1 & 2) This change revises the Reactor Coolant Water Chemistry specifications for pH, hydrogen, total suspended solids, and boric acid, to be consistent with Westinghouse Project Specifications", Revision 4.	Revision
5.2.3	4	5.2-005-5.2.3	5.2-29 [Am-55] The FSAR gives the welding material as ASME weld metal analysis A-7. This is clarified by adding that it is "designated A8 in the 1974 edition of the ASME B&PV code.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
5.2.4	3	5.2-006-5.2.4	5.2-31 [Am-55] With Amendment 42, the pre-service and inservice inspections were tied to ASME, Sec XI, the 1980 edition. This is updated for the Inservice Inspection of Class I systems and support through to the 1981 winter addenda by this amendment, expanded in Amendment 57, and clarified once again by Amendment 66.	Update
5.2.4	3	5.2-007-5.2.4	5.2-31 [Am-57] For the Inservice Inspection of Class I systems Subsection IWF is added to IWB in this paragraph. Further clarification is given in Amendment 66.	Addition
5.2.4	4	5.2-008-5.2.4-B	5.2-31 and 5.2-35 [Am-66] This change provides a clearer description in reference to 10CFR50.55a which could cause confusion or misinterpretation. 10CFR50.55a provides requirements for the Edition and Addenda of ASME Section XI to be applied during inservice and preservice inspection. It is unnecessary and impractical to state a particular code year in the FSAR because the applicable Code year is established based upon issuance of the operating license and reestablished on a 10-year interval basis. A sentence on ultrasonic examination is deleted because IWA-2232 of ASME XI does not limit UT examinations to the provisions of Section XI and Article 4 of Section 5.	Clarification
5.2.4	4	5.2-009-5.2.4-B	5.2-37 [Am-66] This change provides a clearer description in reference to 10CFR50.55a which could cause confusion or misinterpretation. 10CFR50.55a provides requirements for the Edition and Addenda of ASME Section XI to be applied during inservice and preservice inspection. It is unnecessary and impractical to state a particular code year in the FSAR because the applicable Code year is established based upon issuance of the operating license and reestablished on a 10-year interval basis.	Clarification
5.2.4	4	5.4-003-5.2.4-B	5.4-21 [Am-66] This change provides a clearer description in reference to 10CFR50.55a which could cause confusion or misinterpretation. 10CFR50.55a provides requirements for the Edition and Addenda of ASME Section XI to be applied during inservice and preservice inspection. It is unnecessary and impractical to state a particular code year in the FSAR because the applicable Code year is established based upon issuance of the operating license and reestablished on a 10-year interval basis.	Clarifica

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
5.2.5	2	5.2-020-5.2.5	212-32 thru -35 [Am-68] Replaces the previous response with a new response that identifies the limitations of the detectors and takes into account minimum sensitivities of the detectors. The response describes how the intent of R.G. 1.45 is met.	Revision
5.2.5	3	5.2-011-5.2.5-C	5.2-49 [Am-57] The Containment sump leakage detection time is tightened from a level increase of 4 inches in one hour to 3 inches in 45 minutes.	Revision
5.2.5	3	5.2-012-5.2.5-C	5.2-52 [Am-57] The Containment sump level alarm setting is adjusted to match the criteria change given on page 5.2-49,	Revision
5.2.5	3	5.2-013-5.2.5-C	5.2-54 [Am-57] Amendment 6 stated that 60 gallons of water would be introduced into the sump to affirm switch settings. This is revised to eliminate the water quantity. However, The switch and alarm settings need to be confirmed during each refueling no matter how much water is required.	Revision
5.2.5	3	5.2-019-5.2.5-C	212-30 [Am-57] Corrects methodology for computing containment sump "1 gpm leak rate".	Correction
5.2.5	4	1AB-7-5.2.5	1A(B)-18, -19 [Am-66] Clarified the capabilities of the RMS monitors to detect a 1 gpm RCS leak rate in less than one hour. Under conditions of high containment activities the RMS monitors may be unable to detect this leakage within one hour due to the masking effect of the background activity. Under these conditions grab samples of containment atmosphere will be obtained in accordance with action statement of Technical Specification 3/4.4.6 for Inoperative Radioactive Monitoring System.	Clarification
5.2.5	4	5.2-010-5.2.5	5.2-39 [Am-66] Deletes the sentence which states that additional description of the Leakage Detection System can be found in the Technical Specifications. This sentence is deleted because a detailed description of the Leakage Detection System is already contained in this FSAR Section. Referencing the Technical Specifications for the description is inappropriate.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
5.3.1	4	5.3-001-5.3.1	Sec. 5.3 [Am-59] The only change to this section subsequently to Amendment 10, March 31, 1980 is the addition of a paragraph on page 5.3-18. (See evaluation no. 5.3-002-5.3.3)	Editorial
5.3.1	4	5.3-003-5.3.1	121-3 [Am-65] Corrects typographical error "Section 5.3.16" to "Section 5.3.1.6".	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
5.3.3	3	5.3-002-5.3.3	5.3-18 [Am-59] A paragraph is added to provide values for the pressurized thermal shock reference temperatures as required by the screening criteria of 10CFR50.61. This paragraph is designated 5.3.2.2, but should be 5.3.2.3.	Addition

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
5.4	4	5.4-001-5.4	5.4-1 thru 90 [Am-64] Full text reissued with new format for change bars and sheets renumbered.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
5.4.2	3	5.2-016-5.4.2	T5.2-2 [Am-66](Sht. 2) This change revised the Steam Generator and Pressurizer primary manway closure hardware from bolts to studs, washers and nuts.	Revision
5.4.2	3	5.4-002-5.4.2-F	5.4-19 [Am-64] This change updates the FSAR to incorporate information pertaining to the heat treatment and shotpeening processes applied to the Unit 1 D4 steam generators. An advance copy of this change has been transmitted to the NRC in TXX-6112 dated November 24, 1986.	Revision
5.4.2	3	5.4-006-5.4.2-G	5.4-23 thru -29 [Am-55] The description of the inspection of the steam generator tube and the criteria for selection of tube samples is greatly extended and consideration of tubes that were treated by expanding is added. Categories C-1, C-2 and C-3 are established for evaluating results and are introduced into the criteria for determining reinspection frequency. Additional clearer definitions for the acceptance criteria are given. A requirement for the preparation and submittal of inspection reports is added. This discussion is consistent with the Plant Technical Specifications.	Addition
5.4.2	3	5.4-025-5.4.2-G	T5.4-18 [Am-55] Table 5.4-18 is added to the FSAR to describe the S.G. tube inspection as on evaluation sheet 5.4-006-5.4.2-G.	Addition
5.4.2	4	5.4-004-5.4.2	5.4-21 [Am-55] The Steam Generator Inservice Tube Inspection description is improved by adding a reference to the CPSES Technical Specifications.	Addition
5.4.2	4	5.4-005-5.4.2	5.4-22 [Am-55] The words "as a minimum" are added to clarify that additional equipment may be purchased for the eddy current inspection system beyond the five units cited.	Clarification
5.4.2	4	5.4-021-5.4.2-F	5.4-90 [Am-64] Provides listing of referenced documents for steam generator heat treatment and shotpeening processes.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
5.4.3	2	5.4-015-5.4.3-E	Sec 5.4.7 [Am-68] The RHR cooldown analysis was re-performed by Westinghouse based on validated input parameters prov' l by the Stone and Webster Engineering Corporation (SWEC). T °C input parameters included revised auxiliary heat loads and a s water input temperatures which were based on conservative SW. sumptions and methodology. The revisions to FSAR Sections 5.4 an. .2 reflect revised input assumptions and the results of the revised cooldown analysis. The changes include revised cooldown rates as well as revised temperatures for portions of the RHR, CCW and SSW systems. SER Section 5.4.3 references a cooldown time of 17 hours to get from 350 degrees to 200 degrees (cold shutdown). This time has been changed in the current analysis to 21 hours.	Revision
5.4.3	2	5.4-016-5.4.3-E	5.4-51 [Am-68] Revises various times associated with RHR cooldown. Also see description under evaluation 5.4-015-5.4.3-E.	Revision
5.4.3	2	5.4-017-5.4.3-E	5.4-57 [Am-68] Revises a time associated with RHR cooldown. Also see description under evaluation 5.4-015-5.4.3-E.	Revision
5.4.3	2	5.4-018-5.4.3-E	5.4-67 [Am-68] Revises maximum component cooling water temperature during cooldown. Also see description under evaluation 5.4-015-5.4.3-E.	Revision
5.4.3	2	5.4-029-5.4.3-E	F5.4-8 [Am-68] Revises normal RHR cooldown curve. Also see description under evaluation number 5.4-015-5.4.3-E.	Revision
5.4.3	2	5.4-030-5.4.3-E	F5.4-9 [Am-68] Revises single Train RHR cooldown curve. Also see description under evaluation number 5.4-015-5.4.3-E.	Revision
5.4.3	3	5.4-022-5.4.3-E	T5.4-1 [Am-68] Revises the maximum continuous cooling water inlet temperature for the reactor coolant pumps as described for evaluation number 5.4-018-5.4.3-E.	Revision
5.4.3	3	5.4-023-5.4.3-E	T5.4-7 [Am-68] Revises maximum component cooling water temperature and time to cooldown on the RHR system. Also see description under evaluation number 5.4-018-5.4.3E.	Revision
5.4.3	3	5.4-024-5.4.3-E	T5.4-8 [Am-68] Revises RHR heat exchanger inlet and outlet temperatures and flowrate. Also see description under evaluation number	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			5.4-015-5.4.3-E.	
5.4.3	3	5.4-028-5.4.3-E	F5.4-7 [Am-68](Notes Sht. 1) Revises maximum component cooling water temperature. Also see description under evaluation number 5.4-015-5.4.3-E.	Correction

TU Electric | FSAR Change Review Information | Chapter : 05 | Page: 14

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification

Total Records Processed : 48

Chapter 05
EVALUATIONS SUMMARY BY ALPHA DESIGNATOR

ALPHA	GROUPS 1	2	3	4	TOTAL
		3	9	11	23
A				2	2
B				3	3
C			4		4
E		6	4		10
F			1	1	2
G			2		2
H			2		2
Totals :		9	22	17	48
Factored Totals :		4	14	14	32

TU Electric

FSAR Change Review Information

EVALUATIONS SUMMARY BY GROUP

Chapter : 05

SER	GROUPS 1	2	3	4	TOTAL
05.01.0				2	2
05.02.0			4	2	6
05.02.1		1	1		2
05.02.2		1	1	1	3
05.02.3			1	1	2
05.02.4			2	3	5
05.02.5		1	4	2	7
05.03.1				2	2
05.03.3			1		1
05.04.0				1	1
05.04.2			4	3	7
05.04.3		6	4		10
TOTAL :		9	22	17	48

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
6.1.1	4	6.1-3-6.1.1	T6.1B-1 [Am-66](Sht. 2) Provides correct material designation changing from JA-351 CF8 to SA 312 and SA-358 CL1 type 304 or 316 for ESF piping.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
6.1.2	3	6.1-1-6.1.2-A	6.1B-13 [Am-55] Appendix L to NUREG-0797, SSER no. 9, is introduced as a reference. This establishes that the failure of the coating on the containment liner steel and internal concrete has no safety impact. Therefore, the CPSES coating is relieved from complying with R.G. 1.54, ANSI N101.2, and ANSI N512.	Revision
6.1.2	3	6.1-2-6.1.2-A	6.1B-15 [Am-55] NUREG-0797, Appendix L, is added to the list of references.	Revision
6.1.2	3	6.1-4-6.1.2	T6.1B-3[Am-55] The area of coating material in containment is added to this table as divided between steel and concrete.	Revision
6.1.2	3	6.1-005-6.1.2-A	281-1 [Am-55] Changes the safety classification of coatings in containment. The response to this question incorporates the findings of and a reference to NUREG-0797, Appendix L.	Revision
6.1.2	3	6.2-3-6.1.2-A	6.2-68 [Am-55] Removes the exception from qualified coatings for small non-safety-related pieces of equipment and adds the reference to the detailed evaluation of adverse safety impacts due to failure of the coatings. See p. 6.1B-13 for justification.	Revision
6.1.2	3	6.2-9-6.1.2-A	6.2-74 [Am-55] NUREG-0797, Appendix L, is added to the list of references.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
6.2	2	6.2-72-6.2-L	T6.2.4-3 [Am-66](Sht. 2) Valve power failure mode for items 19 and 20a is revised to Fail-As-Is (FAI).	Correction
6.2	2	6.2-74-6.2-L	T6.2.4-3 [Am-66](Sheets 3 and 4) Valve power failure mode for items 21, 22a, 23, 24a, 25 and 26a is revised to Fail-As-Is (FAI).	Correction
6.2	4	6.2-69-6.2	T6.2.4-3 [Am-66](Shts. 1 & 1A, 2 thru 13) Adds applicable power supply Train to power operated valves previously omitted from this table.	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
6.2.1	4	6.2-1-6.2.1	6.2.1 No changes in this section since Am-52, 8/27/84.	No Change
6.2.1	4	6.2-140-6.2.1	Sec. 6.2 [Am-65] Full text reissued with new format change bars and sheets renumbered.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
6.2.2	2	6.2-6-6.2.2	6.2-69 [Am-68] Deletes the words "including a 10-percent margin" from the description of tne NPSH curve in Figure 6.2.2-2. The NPSH curves in this figure have been revised. The NPSH complies with the requirements of Regulatory Guide 1.1.	Revision
6.2.2	3	6.2-4-6.2.2	6.2-69 [Am-68] Deletes the exception to Regulatory Guide 1.1. The NPSH calculation is performed in accordance with Regulatory Guide 1.1.	Revision
6.2.2	3	6.2-22-6.2.2	F6.2.2-2 [Am-68] The NPSH curves for the containment spray pumps are revised based on new calculations. The NPSH complies with the requirements of Regulatory Guide 1.1. (See also evaluation no. 6.2-6-6.2.2)	Revision
6.2.2	4	6.2-5-6.2.2	6.2-69 [Am-68] Adds the injection phase to the referenced phases for the determination of Containment Spray pump NPSH.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
6.2.3	2	6.2-24-6.2.3	6.2-79 [Am-66] Deletes the requirement to check leakages for relief valves located inside containment. This is consistent with Note 5 of Table 6.2.4-2 which is applied to items 33 and 34. Containment pressure will cause any relief valve leakage to be reduced.	Revision
6.2.3	2	6.2-25-6.2.3-C	6.2-82 [Am-68] Adds the Main Steam Isolation Valve (MSIV) bypass valves as containment isolation valves which are normally locked closed. These valves are similar in function and in the method for providing containment isolation to the Turbine Driven Auxiliary Feedwater (TDAFW) pump steam supply bypass valves.	Revision
6.2.3	2	6.2-27-6.2.3	6.2-82 [Am-66] Adds item 8, a description of the special measures taken to ensure that local vent, drain and test connection valves, which are located within the containment isolation boundary, provide containment integrity. Although these valves function as containment isolation valves, they are excluded from the isolation valve list because of the special measures taken.	Addition
6.2.3	2	6.2-028-6.2.3	6.2-82 [Am-66] Adds item 9, a paragraph on the SIS test line pressure indicator to describe the use of a pressure indicator as a containment isolation boundary. The SER, in Section 6.2.3, states "containment penetrations whose isolation provisions do not satisfy the explicit requirements of the GDC (55 or 56 as appropriate) but which are acceptable under some other defined basis.....are discussed below." The use of a pressure indicator as a containment isolation boundary does not satisfy the explicit requirements of the GDC but is acceptable on the basis provided in this amendment.	Revision
6.2.3	2	6.2-29-6.2.3-E	6.2-83 [Am-66] Adds item 10 under "Special containment Isolation Provisions". This item describes the use of thermal relief valves to protect isolated and stagnant fluid penetrations which may be subject to external heat sources. Since the isolated fluid is between containment isolation valves, the thermal relief valve becomes a containment isolation valve.	Revision
6.2.3	2	6.2-034-6.2.3	T6.2.4-2 Note 3 [Am-55] Pressure at which water test is to occur (Pa) was added.	Revision
6.2.3	2	6.2-104-6.2.3-E	T6.2.4-6 [Am-66][Am-68](Sheets 6 thru 12) Adds thermal relief valve items 41a, 52a, 60a, 61a, 74a, 77a, 78a, 80a, 81a, 83a, 111a, 111b, 114a, 120a and 121a.	Revision
6.2.3	3	6.2-017-6.2.3-V	F6.2.2-1 [Am-67] Adds Note 14 to drawing to state that the manway covers on the valve isolation tanks are removed. This is consistent with Amendment	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			38, FSAR page 6.2-78 which states that the tank and guard pipe are not part of the containment boundary. This avoids any danger from overpressuring the isolation tank.	
6.2.3	3	6.2-23-6.2.3	6.2-78 [Am-68] Adds the Auxiliary Feedwater valves and Auxiliary Feedwater Turbine supply valves as valves whose safeguard function to remain open overrides the containment isolation function to close.	Revision
6.2.3	3	6.2-26-6.2.3	6.2-82 [Am-65] Paragraph added to describe the isolation criteria for the TDAFW pump warm-up bypass lines. These lines are added in the amendment to section 10.3.2.6.	Revision
6.2.3	3	6.2-030-6.2.3	6.2-88 [Am-68] Provides an alternate criterion for containment isolation valves in lines which provide a direct connection from the containment atmosphere to the environment but do not have closing times of 5 seconds or less (i.e. the valves are locked closed).	Revision
6.2.3	3	6.2-032-6.2.3-C	T6.2.4-1 thru -3 [Am-65] (Shts. 1 and 2) Items 4a and 17a TDAFW Pump Bypass valves inserted consistent with revision to page 6.2-82.	Revision
6.2.3	3	6.2-035-6.2.3-H	T6.2.4-1 [Am-66](Sht. 1 and 1A) Adds items 5a, 5b, 9a, 9b, 13a, and 13b. These are existing valves that were inadvertently omitted from this table. Revision: Adds items 18a and 18b. These are existing valves inadvertently omitted from this table.	Addition
6.2.3	3	6.2-37-6.2.3-D	T6.2.4-1 [Am-66] Deletes items 20b and 22b. The Feedwater Bypass Header Drain Isolation valves have been functionally removed by capping off the piping downstream of the valves. Renames remaining c, d, e items to be b, c and d.	Revision
6.2.3	3	6.2-38-6.2.3-D	T6.2.4-1 [Am-66] (Sht. 3) Deletes items 24b and 26b. The Feedwater Bypass Heater Drain Isolation Valves have been functionally removed by capping off the pipe downstream of the valves.	Revision
6.2.3	3	6.2-39-6.2.3-E	T6.2.4-1 [Am-66](Shts. 4, 5 and 6) Adds thermal relief valves items 41a, 52a, 60a and 61a.	Revision
6.2.3	3	6.2-41-6.2.3	T6.2.4-1 [Am-66](Sht. 6) Revises applicable GDC from 56 to 55 for item 63 for the RHR lines to the hot legs of loops 2 and 3 (Item 63).	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
6.2.3	3	6.2-45-6.2.3-M	T6.2.4-1 [Am-68](sheet 3) Deletes items 24 and 26. These were secondary sampling connections to steam generators 3 and 4. They were determined to be unnecessary and the sample lines were capped thus eliminating the need for containment isolation valves 1FW-110 and 1FW119.	Revision
6.2.3	3	6.2-47-6.2.3-E	T6.2.4-1 [Am-66](Shts. 7 and 9) Adds thermal relief valves items 74a, 77a, 78a, 80a, 81a, 83a, 114a and 120a.	Addition
6.2.3	3	6.2-51-6.2.3-E	T6.2.4-1 [Am-68](Sht. 9) Added new items 111a and 111b which are thermal relief valves located inside containment for the Component Cooling Water System.	Revision
6.2.3	3	6.2-54-6.2.3-E	T6.2.4-1 [Am-66](Sht. 10) Adds thermal relief valve item 121a.	Revision
6.2.3	3	6.2-55-6.2.3-I	T6.2.4-2 [Am-66](Sht. 1 and 1A) Adds "Note 8" to the Table title. This note states that vent and drain valves and test connections located within the containment penetration boundary are not listed in this table. However, they meet all the requirements of containment isolation valves.	Revision
6.2.3	3	6.2-57-6.2.3-J	T6.2.4-2 [Am-56](sheet 1) Items 2,7,11 and 15, the MSIV by pass valves are changed from hydraulic operators to manual operators. They are normally closed during operation, and as stated in note 1, these do not require testing per NUREG-0800.	Revision
6.2.3	3	6.2-59-6.2.3-H	T6.2.4-2 [Am-66](Sht. 1) Adds items 18a and 18b. These are existing containment isolation valves which were inadvertently omitted from this table.	Addition
6.2.3	3	6.2-60-6.2.3-D	T6.2.4-2 [Am-66](Sht. 2) Deletes items 20b and 22b.	Revision
6.2.3	3	6.2-61-6.2.3-M	T6.2.4-2 [Am-68](Sht.2 & 3) Deletes items 24 and 26. These were secondary sampling connections to steam generators 3 and 4. They were determined to be unnecessary and the sample lines were capped thus eliminating the need for containment isolation valves 1FW-110 and 1FW-119.	Revision
6.2.3	3	6.2-62-6.2.3-D	T6.2.4-2 [Am-66](Sht. 3) Deletes items 24b and 26b. The Feedwater Bypass Header Drain Isolation Valves have been functionally removed by capping off the pipe downstream of the valves.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
6.2.3	3	6.2-63-6.2.3-E	T6.2.4-2 [Am-66](Shts. 4 thru 9) Adds thermal relief valves items 41a, 52a, 60a, 61a, 77a, 78a, 80a, 114a, 120a and 121a.	Addition
6.2.3	3	6.2-64-6.2.3-E	T6.2.4-2 [Am-68](sheet 8) Added new items 111a and 111b which are thermal relief valves located inside containment for the Component Cooling Water System. These valves were inadvertently omitted from Amendment 66.	Revision
6.2.3	3	6.2-65-6.2.3-I	T6.2.4-2 [Am-66](Sht. 10) Adds Note 8 description.	Revision
6.2.3	3	6.2-66-6.2.3	T6.2.4-3, [Am-65](Shts. 1 thru 4) Automatic isolation valves are designed to assume a fail safe position. This Table 6.2.4-3 is being changed to make the FSAR accurate by indicating the correct fail safe position for these valves.	Correction
6.2.3	3	6.2-67-6.2.3-J	T6.2.4-3 [Am-56](Sheets 1 thru 4) Table entries for items 2, 7, 11, 15, 24 and 26 are updated to match changes to MS/BV cited in 6.2-57-6.2.3-J.	Revision
6.2.3	3	6.2-68-6.2.3	T6.2.4-3 [Am-66](Shts. 1 and 1A) This change revises items 2, 7, 11 and 15 to delete the containment isolation signal referenced for the main steam isolation bypass valves. This revision is part of our response to the NRC request for additional information dated February 27, 1986 which was transmitted by our letter TXX-6126 dated December 8, 1986.	Revision
6.2.3	3	6.2-71-6.2.3-H	T6.2.4-3 [Am-66](Sht. 2) Adds items 18a and 18b.	Revision
6.2.3	3	6.2-73-6.2.3-D	T6.2.4-3 [Am-66] (Shts. 2,3 and 4) Deletes Feedwater Bypass Header Drain Isolation Valves - were items 20b, 22b, 24b, and 26b.	Revision
6.2.3	3	6.2-75-6.2.3-M	T6.2.4-3 [Am-68](sheet 4) Deletes items 24 and 26. These were secondary sampling connections to steam generators 3 and 4. They were determined to be unnecessary and the sample lines were capped thus eliminating the need for containment isolation valves 1FW-110 and 1FW-119.	Revision
6.2.3	3	6.2-76-6.2.3	T6.2.4-3 [Am-68](sheet 6) Revises valves power failure mode for item 42 to fail close.	Correction
6.2.3	3	6.2-77-6.2.3-E	T6.2.4-3 [Am-66](Shts. 6 thru 10) Adds thermal relief valves items 41a, 52a, 60a, 61a, 74a, 77a, 78a, 80a, 81a and 83.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
6.2.3	3	6.2-79-6.2.3-E	T6.2.4-3 [Am-68][Am-66](sheet 13) Added thermal relief valves, items 111a, 111b, 114a, and 120a.	Revision
6.2.3	3	6.2-81-6.2.3-E	T6.2.4-3 [Am-66](Sht. 14) Adds thermal relief valve item 121a.	Revision
6.2.3	3	6.2-82-6.2.3	T6.2.4-3 [Am-68](sheet 14) Revises valve closure time for item 122 to 3 seconds.	Revision
6.2.3	3	6.2-83-6.2.3	T6.2.4-4 [Am-66] Deletes item 51. Penetration MIII-11 is deleted from this table. This table identifies penetrations that are not drained and vented during containment ILRT (Type A).	Revision
6.2.3	3	6.2-84-6.2.3	T6.2.4-4 [Am-66] Deletes items 111 and 112 because they are GDC 57 penetrations not required to be listed, as discussed in evaluation no 6.2-126-6.2.5-S. Also note is added for clarification.	Revision
6.2.3	3	6.2-85-6.2.3-C	T6.2.4-5 [Am-65](Sht. 1&1A) T6.2.4-6 [Am-65](Sht. 1&2) Inserts items 4a and 17a TDAFW Pump Bypass Valves.	Revision
6.2.3	3	6.2-88-6.2.3-D	T6.2.4-5 [Am-66](Shts. 2 and 3) Deletes items 20b, 22b, 24b and 26b.	Revision
6.2.3	3	6.2-89-6.2.3-M	T6.2.4-5 [Am-68](Sht.2 & 3) Deletes items 24 and 26. These were secondary sampling connections to steam generators 3 and 4. They were determined to be unnecessary and the sample lines were capped thus eliminating the need for containment isolation valves 1FW-110 and 1FW-119.	Revision
6.2.3	3	6.2-91-6.2.3	T6.2.4-5 [Am-55](Sht. 4) Items 33 and 34 are residual heat removal system lines covered by note 5, Table 6.2.4-2. They are not required to be tested. Test provisions are removed from the table by this revision.	Correction
6.2.3	3	6.2-093-6.2.3-E	T6.2.4-5 [Am-66](Shts. 5, 6a, 8, 9, 10 and 10a) Adds thermal relief valves, items 41a, 52a, 60a, 61a, 74a, 77a, 78a, and 80a.	Revision
6.2.3	3	6.2-099-6.2.3-E	T6.2.4-5 [Am-66](Sheets 13 and 14) Adds thermal relief valves, items 111a, 111b, 114a, 120a and 121a.	Revision
6.2.3	3	6.2-102-6.2.3-D	T6.2.4-6[Am-66](Shts. 2, 3 and 4) Deletes items 20b, 22b, 24b and 26b.	Revision
6.2.3	3	6.2-103-6.2.3-M	T6.2.4-6 [Am-68](Sht.3 & 4) Deletes items 24 and 26. These were secondary sampling connections to steam generators 3 and 4. They were determined to be unnecessary	Revision

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			and the sample lines were capped thus eliminating the need for containment isolation valves 1FW-110 and 1FW-119.	
6.2.3	3	6.2-106-6.2.3	F6.2.4-1 [Am-56](sheet 5) The isolation testing valves for arrangement 17 were updated. This arrangement was revised once again in Amendment 66 to provide a relief valve and a locked closed bypass. Containment isolation requirements are met since the relief valve setting is always higher than containment design.	Update
6.2.3	3	15.1-002-6.2.3-J	T15.1-2 [Am-56] Indicates that automatic MSIV bypass valve actuators were replaced with manual actuators which are locked closed during power operation. (MSIVs can be opened manually by the operator in the Control Room without opening the bypass valve.)	Revision
6.2.3	4	6.2-031-6.2.3	6.2-90 [Am-68] The wording which states that "each penetration is provided with test connections" has been revised since not all penetrations shown in Figure 6.2.4-1 require testing.	Clarification
6.2.3	4	6.2-033-6.2.3	T6.2.4-1 [Am-55](sheets 2,3,and 4) Change indicated beside Item 20a should have been by Item 20b. Chemical Feed Nozzle changed to Feedwater Bypass Header Drain with no change to containment isolation provisions. This change is made to each S.G. Also, editorial changes such as spelling have been made.	Correction
6.2.3	4	6.2-40-6.2.3	T6.2.4-1 [Am-66](Shts. 5 and 6) Changes "air*" to "water" for the fluid controlled by these valves.	Correction
6.2.3	4	6.2-42-6.2.3-G	T6.2.4-1 [Am-66](Sht. 6) Adds FSAR figure number to item 70, the containment leak rate test pressurization line.	Update
6.2.3	4	6.2-43-6.2.3-F	T6.2.4-1 [Am-68] (Shts. 2 and 3) Items 20a, 22a, 24a and 26a Auxiliary Feedwater line sizes were corrected to as-built configuration.	Correction
6.2.3	4	6.2-44-6.2.3	T6.2.4-1 [Am-68](sheet 2) Item 20a reference to FSAR Figure number is changed.	Correction
6.2.3	4	6.2-46-6.2.3-F	T6.2.4-1 [Am-66](Shts. 6 and 7) Corrects line size for items 71 and 81 to as-built configuration.	Correction
6.2.3	4	6.2-48-6.2.3	T6.2.4-1 [Am-66](Sht. 7) Revises isolation valving arrangement number and FSAR figure number in item 81.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
6.2.3	4	6.2-49-6.2.3-G	T6.2.4-1 [Am-66](Shts. 7 and 8) Adds references to FSAR Figure numbers for items 84, 97, 100.	Update
6.2.3	4	6.2-50-6.2.3	T6.2.4-1 [Am-66](Sht 8) Revises sensor designators for items 92, 95, 98 and 101.	Correction
6.2.3	4	6.2-52-6.2.3-G	T6.2.4-1 [Am-66](Shts. 9 and 10) Provides the appropriate figure numbers for items 115 and 124.	Update
6.2.3	4	6.2-53-6.2.3-F	T6.2.4-1 [Am-66](Shts. 9 and 10) Corrects line sizes 111, 112, 114, 116, 118 and 123.	Correction
6.2.3	4	6.2-056-6.2.3-K	T6.2.4-2 [Am-66](Sht. 1 and 1A) Adds items 5a, 5b, 9a, 9b, 13a and 13b. These are existing containment isolation valves which were inadvertently omitted from this table.	Correction
6.2.3	4	6.2-58-6.2.3	T6.2.4-2 [Am-66] (Sheet 1) Revises items 2, 7, 11 and 15 to change the primary method of valve actuation from "manual" to "local manual". The revision is part of our response to the NRC request for additional information dated February 27, 1986 which was transmitted by our letter TXX-6126 dated December 8, 1986.	Clarification
6.2.3	4	6.2-70-6.2.3-K	T6.2.4-3 [Am-66](Shts. 1 and 1A) Adds items 5a, 5b, 9a, 9b, 13a and 13b. These are isolation valves previously omitted.	Correction
6.2.3	4	6.2-78-6.2.3	T6.2.4-3 [Am-66](Sht. 12) Adds valve closure times in item 109 (previously listed as N/A).	Correction
6.2.3	4	6.2-80-6.2.3	T6.2.4-3 [Am-66](Sht. 13) Adds valve closure times in item 110 (previously listed as N/A).	Correction
6.2.3	4	6.2-86-6.2.3-K	T6.2.4-5 [Am-66](Sht. 1 and 1A) Adds items 5a, 5b, 9a, 9b, 13a, 13b, 18a and 18b. These are containment isolation valves that had been inadvertently omitted from this table.	Correction
6.2.3	4	6.2-87-6.2.3-O	T6.2.4-5 [Am-66](Sheets 1 and 1A) Adds new test connection and references to note 13 for item 20a.	Addition
6.2.3	4	6.2-90-6.2.3	T6.2.4-5 [Am-55] (Sheet 3) Item 32 test connections and block valves were simplified and isolation clarified.	Clarification
6.2.3	4	6.2-092-6.2.3	T6.2.4-5 [Am-55](Sheets 6 thru 15) Items 46 thru 60 test connections and block valves were simplified and isolation clarified. Also items 71 thru 83, and 104, 105	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			and 109. Also items 110 and 113 thru 129.	
6.2.3	4	6.2-094-6.2.3	T6.2.4-5 [Am-57](Sht. 7) Items 59 and 61 direction of test added with minor changes to test arrangements.	Correction
6.2.3-O	4	6.2-95-6.2.3-O	T6.2.4-5 [Am-66](Sheets 10 and 10A) Adds new test vent to item 80 and references Note 13.	Addition
6.2.3	4	6.2-96-6.2.3	T6.2.4-5 [Am-66](Sheet 11) Corrects an existing test vent and adds two new test vents to item 83.	Addition
6.2.3	4	6.2-097-6.2.3	T6.2.4-5 [Am-66](Sht. 13) Moves reference to IRC-005 and Note 13 from the test vent column to the test connection column. Corrects block valve column in item 116.	Correction
6.2.3	4	6.2-098-6.2.3	T6.2.4-5 [Am-66](Sht. 13) Corrects two test connections in item 113.	Correction
6.2.3	4	6.2-100-6.2.3-K	T6.2.4-6[Am-66](Sht. 1, 1A and 2) Adds items 5a, 5b, 9a, 9b, 13a, 13b, 18a, and 18b.	Addition
6.2.3	4	6.2-105-6.2.3	F6.2.4-1 [Am-68](Sheet 4) Valve arrangement 16 is revised to reflect the proper convention for showing a test vent.	Correction
6.2.3	4	6.2-107-6.2.3	F6.2.4-1 [Am-67](Sheet 10) Valve arrangements 19, 20, 38 and 39 have been revised to be consistent with as-built conditions and project drawings.	Correction
6.2.3	4	6.2-114-6.2.3	6.2-110 [Am-66] Expands the description of the ANS Safety Class 2 "equipment" to include only the containment isolation valves, the piping between them, and the piping inside containment.	Clarification
6.2.3	4	6.2-115-6.2.3	6.2-110 [Am-66] Changes "beyond the isolation valves" to "beyond the outboard containment isolation valves".	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-66)	Change Classification
6.2.4	2	6.2-121-6.2.4	T6.2.5-5 [Am-66] This change is to reflect current systems changes identified during the combustible gas control review. The remote thermal conductivity analyzers of the Containment Hydrogen Monitoring System were replaced by in-containment electrochemical sensors and microprocessor-based analyzers located in the control room.	Revision
6.2.4	3	6.2-110-6.2.4-P	6.2-104 [Am-66] Revises total hydrogen within primary coolant system from 1191 scf to 1701 scf. Also revises maximum hydrogen concentration in the RCS from 35 cm3/kg to 50 cm3/kg. These changes were made to be consistent with Westinghouse Chemistry Criteria and Specification.	Revision
6.2.4	3	6.2-111-6.2.4	6.2-106 [Am-66] Corrects flow rate of hydrogen produced by corrosion.	Correction
6.2.4	3	6.2-112-6.2.4	6.2-110 [Am-66] Based on the post-LOCA hydrogen production rate the actual time to 3% hydrogen concentration is 12 days. The previously stated 14 days was approximate and is revised.	Revision
6.2.4	3	6.2-116-6.2.4-P	6.2-118 [Am-66] Revises total hydrogen within RCS from 1191 SCF to 1701 SCF. Also revises maximum hydrogen concentration in the RCS from 35 cc/kg to 50 cc/kg. These changes are made to be consistent with Westinghouse Chemistry Criteria and Specification.	Revision
6.2.4	3	6.2-118-6.2.4	6.2-115 [Am-56] Identifies Rev. 2 as the revision of R.G. 1.7 applicable to Section 6.2.5. SER/SSER IMPACT: SER Subsection 6.2.4, page 6-12, first paragraph is not consistent as a result of this change.	Correction
6.2.4	3	6.2-120-6.2.4	T6.2.5-2 [Am-55][Am-66] Provides the as-built hydrogen recombiner parameters. The total power is given as 75kw instead of 15. Only four heaters are used in place of 5. The surface area in each heater, the maximum heat flux and maximum sheath temperature are unchanged. A note is added stating that the wiring configuration causes a different heat flux in each bank.	Correction
6.2.4	3	6.2-122-6.2.4-P	T6.2.5A-2 [Am-66] Revises RCS total Hydrogen in primary coolant from 1191 SCF to 1701 SCF. This change is made to be consistent with the Westinghouse Chemistry Criteria and Specification.	Revision
6.2.4	3	6.2-123-6.2.4-Q	T6.2.5A-3 [Am-56] The inventory of aluminum contained in miscellaneous mechanical and electrical equipment is updated. The inventory is changed	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			once again in Amendment 66.	
6.2.4	3	6.2-124-6.2.4-Q	T6.2.5A-3 [Am-66] Updates table to reflect additional aluminum electrical equipment in containment.	Correction
6.2.4	4	6.2-109-6.2.4	6.2-103 [Am-66] Provides correct reference to surface area and weight tables for aluminum and zinc.	Correction
6.2.4	4	6.2-113-6.2.4	6.2-110 [Am-66] Changes "Hydrogen Purge air filtration unit" to "Hydrogen Purge exhaust filtration units".	Clarification
6.2.4	4	6.2-117-6.2.4	6.2-118 [Am-66] Deletes statement "during steady state plant operations above 1MW power level". Westinghouse Chemistry criteria and Specifications do not include this condition.	Clarification
6.2.4	4	6.2-119-6.2.4	6.2-117 [Am-56] Identifies Rev 1 as the revision of R.G. 1.7 which provides the model used for the hydrogen generation calculations of Section 6.2.5A.	Correction
6.2.4	4	6.2-125-6.2.4	F6.2.5-1 [Am-67] Provides an updated sketch of actual hydrogen recombiner.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
6.2.5	2	6.2-126-6.2.5-S	6.2-128 [Am-66] Revises the text to allow performance of either a reduced or full pressure periodic Type A (ILRT) test. Periodic tests (Reduced and Full) and associated supplemental test acceptance criteria are also provided consistent with the requirements of 10CFR50 Appendix J.	Revision
6.2.5	3	6.2-127-6.2.5-R	6.2-128 [Am-55] An exception is taken to ANSI N45.4 which allows the method of ANSI/ANS 56.8-1981 to be applied to leak testing penetrations which have been isolated during the Integrated Leak Rate Test. The response to Question 022.22 describes how this change in procedure was accepted by the staff in a letter dated August 23, 1984. This change has been blended into the write-up provided with Amendment 66. SER/SSER IMPACT: SER Subsection 6.2.5, page 6-13 needs to indicate this exception to ANSI N45.4.	Revision
6.2.5	3	6.2-128-6.2.5-T	6.2-128 [Am-66] Adds clarification to differentiate the addition of local leakage rate results to the Type A test upper confidence limit (UCL) in the preoperational and periodic tests. The practice used in the Unit 1 preoperational test as allowed by ANS/ANSI 56.8-1981 Section 3.2.1.4 involved isolating problem penetrations during the Type A test, then adding their post repair Type B or C results to the Type A UCL. IE Information Notice 85- 71, "Containment Integrated Leak Rate Tests" was issued to define minimum pathway leakage and discuss methods acceptable to NRC Staff for establishing an "as found" Type A test leakage rate based on pre-test Type B&C repairs. Type A test leakage corrections for penetrations isolated during the performance of the Type A test were subsequently addressed in the draft regulatory guide endorsement of ANSI/ANS 56.8-1981 (Task MS 021- 5). This draft regulatory guide provided supplementary guidelines for the correction of the UCL (ANSI/ANS 56.8-1981 Section 3.2.6) using minimum pathway leakage for penetration isolated during the Type A test. Therefore the FSAR change differentiates between preoperational and periodic test in this regard. Periodic tests use minimum pathway leakage rates determined by Type B or Type C testing of isolated penetrations.	Revision
6.2.5	3	6.2-130-6.2.5-R	6.2-129 [Am-55] Q&R 022.22 Adds ANSI/ANS 56.8-1981 to discussion as an exception to ANSI N45.4 for leak testing penetrations.	Revision
6.2.5	3	6.2-131-6.2.5	6.2-130 [Am-55] ANSI N45.4, Appendix C was previously written as ANSI N45.2.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
6.2.5	3	6.2-132-6.2.5-S	6.2-130 [Am-66] Adds peak pressure leakage rate criteria consistent with 10CFR50 Appendix J.	Revision
6.2.5	3	6.2-134-6.2.5-R	6.2-131 [Am-55] The use of ANSI 56.8-1981 for type A test repairs was introduced. This has been blended into Amendment 66 write-up.	Revision
6.2.5	3	6.2-135-6.2.5-T	6.2-132 [Am-66] Adds discussion on minimum pathway local leakage rate values for periodic tests.	Revision
6.2.5	4	3.8-040-6.2.5	3.8-72 [Am-68] This change clarifies Section 3.8.1.7.2 to eliminate redundancy between the second and third paragraphs and avoid confusion between the periodic and preoperational Type A tests. Reporting of the maximum allowable leakage rate in a %/day or %/24 hours format is also being clarified.	Clarification
6.2.5	4	6.2-129-6.2.5	6.2-126 [Am-66] Provides more detail for penetrations that are water filled during the performance of the type A test. Table 6.2.4-4 lists penetrations which are water filled during type A testing. These fluid lines are part of systems that during post- accident recovery are operated at a pressure significantly higher than containment pressure, or are required for safe and efficient conduct of the test, or are lines designed in accordance with Regulatory Guide 1.11. Table 6.2.4-4 does not list all penetrations that are not drained and vented. Specifically, for GDC 57 penetrations/valve arrangements the piping system inside containment is not directly open to the atmosphere during normal and post-accident conditions. The status of fluid within the piping (drained/not drained) is not relevant to the Type A test for these closed systems. This satisfies the 10CFR50 Appendix J exemptions to venting/draining provisions (para. III 9.1.d).	Clarification
6.2.5	4	6.2-133-6.2.5	6.2-130 [Am-66] Clarifies acceptance criteria for supplemental tests.	Clarification
6.2.5	4	6.2-136-6.2.5	6.2-132 [Am-66] The personnel and emergency airlock gasket testing arrangement is shown in FSAR Figure 3.8-21 as a dogtooth cross section vice a double (dual) gasket arrangement. The equipment hatch and fuel transfer tube penetrations employ a double (dual) gasket arrangement. Section 6.2.6.2 is revised as noted to provide a generic description of the seal testing arrangements.	Clarification
6.2.5	4	6.2-137-6.2.5	6.2-134 [Am-66] Deletes statement which indicates that the valve isolation tanks are to be leakrate tested. The requirement to leakrate test these	Clarification

SER		Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			tanks was previously deleted in Amendment 38 as discussed in FSAR Section 6.2.4.1.3. The deletion of this requirement was approved in SSER 6. This revision makes this Section consistent with Section 6.2.4.1.3.	
6.2.5	4	6.2-138-6.2.5	6.2-134 [Am-66] The addition of Part 4 to Section 6.2.6.2 provides a description of maintenance and containment leak rate test pressurization/pressure sensing penetrations that are Type B tested. Reference FSAR Table 6.2.4-2 for specific testing commitments. FSAR Figure 9.4-6, Drawing BRP-PN-1-RB-001 and Drawing BRP-PN-1-RB-002 detail specific testing arrangements. With the addition of Part 4, all penetrations that are Type B tested are discussed in Section 6.2.6.2.	Addition
6.2.5	4	6.2-139-6.2.5-R	6.2-137 [Am-55] [Am-66] Adds ANSI/ANS 56.8-1981 to the list of references. Then in Am-66 corrects the title as appropriate.	Addition

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
6.3.2	3	6.2-001-6.3.2	6.2-15 [Am-68] Revises the method by which the accumulator motor operated valves are prevented from inadvertent opening during plant shutdown. Previously it was stated that control power is disconnected from the valves via control room switches. The key lock switches in the control room are used to prevent the valves from being inadvertent closed while the RCS is above 1000 psig (See Tech Spec 3/4.5.1). However, the switches do not effect the ability to open the valves. The statement is corrected to state that during plant shutdown the valves are prevented from inadvertent opening by locking open the valve breakers after valve closure.	Revision
6.3.2	3	6.3-001-6.3.2	p. 6.3-15 [Am-68] Revises the method by which the accumulator motor operated valves are prevented from inadvertent opening during plant shutdown. Previously it was stated that control power is disconnected from the valves via control room switches. The key lock switches in the control room are used to prevent the valves from being inadvertently closed while the RCS is above 1000 psig (See Tech Spec 3/4.5.1). However, the switches do not effect the ability to open the valves. The statement is corrected to state that during plant shutdown the valves are prevented from inadvertent opening by locking open the valve breakers after valve closure.	Revision
6.3.2	3	6.3-003-6.3.2	T6.3-1 [Am-59] The maximum opening or closing time for motor-operated valves is brought up to date and is consistent with the requirements of the system design as described in FSAR Sec. 6.3.2.1.	Revision
6.3.2	3	6.3-004-6.3.2	T6.3-3 [Am-68](sheet 2) Adds source range flux doubling as an additional signal which causes automatic opening of the CVCS suction valves (LCV-112 B,C,D and E).	Revision
6.3.2	3	6.3-005-6.3.2	T6.3-3 [Am-68](sheet 2) Adds description of alarm function for the CVCS normal discharge valves which was previously inadvertently omitted.	Revision
6.3.2	3	6.3-006-6.3.2	T6.3-3 [Am-68](Shts. 3 and 4) Adds description of additional motor operated ECCS isolation valves (charging pump miniflow isolation valves, RHR hot leg suction isolation valves, charging pump miniflow isolation bypass valves, charging pump relief isolation valves and RHR pump recirculation valves) which were not previously included.	Addition
6.3.2	3	6.3-007-6.3.2-U	F6.3-1 [Am-67](5 sheets) Revises drawings to indicate manual isolation valves such as test connection valves located within the penetration boundary	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			are locked closed as required by GDC 56.	
6.3.2	3	6.3-008-6.3.2-U	F6.3-1 [Am-67](sheet 5) Revises drawing to indicate manual isolation valves used as the Safety Class 2 interface are locked closed as required by GDC 56. Also normally closed local vent, drain and test connection valves located within the penetration boundary are revised to be shown locked closed as required by GDC 55 and 56.	Correction
6.3.2	3	6.3-010-6.3.2-V	F6.3-1 [Am-67] (sheet 5) Revises drawing to show that the manway covers on the valve isolation tanks are removed.	Revision
6.3.2	4	5.4-007-6.3.2	5.4-44 [Am-66] Deletes reference to the Boron Injection Tank (BIT). The removal of the BIT was described in Amendment 16. This reference was inadvertently retained.	Correction
6.3.2	4	6.2-11-6.3.2	T6.2.2-1[Am-68](sheet 1) Corrects the design temperature of the RWST.	Correction
6.3.2	4	6.2-14-6.3.2	T6.2.2-2[Am-68] Adds "(minimum)" in reference to injection and recirculation flow rate per train.	Clarification
6.3.2	4	6.3-002-6.3.2	6.3-37 [Am-66] The previous wording implied that the Refueling Water Storage Tank (RWST) is aligned to the suction of the SI and RHR pumps at all times other than during refueling. This is not true for RHR cooling operations during Modes 4 and 5. Nor would it allow isolation and deactivation of the RWST suction to these pumps during Mode 5 operations (with the Reactor Coolant System vented) which is desirable to prevent inadvertent overfilling of the RCS. This FSAR section has been revised to clarify the RWST alignment during specific plant operating modes.	Clarification
6.3.2	4	6.3-009-6.3.2	F6.3-1 [Am-67](sheet 5) Revises drawing to correct and update a number of minor errors such as: incorrect accumulator tag numbers, incorrect discharge line size of two relief valves, indicate ASME class breaks for certain instruments, correct accumulator drain valve numbers, and show pipe class on some instruments.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
6.3.3	4	6.2-8-6.3.3	6.2-73 [Am-68] Adds "channels" with reference to level signals.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
6.3.4	3	5.2-003-6.3.4	5.2-13 [Am-66] Adds the word "preferred" with reference to the mode of operation for the performance testing of ECCS pumps. This is to allow testing during cold shutdown which is specifically required by the Technical Specifications.	Correction
6.3.4	4	5.2-004-6.3.4	5.2-13 [Am-66] Identifies more clearly the conditions under which cold shutdown testing of the ECCS pumps can occur.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
6.4	1	6.4-003-6.4	6.4-2 [Am-68] Provides a statement that a concurrent release of toxic gas due to a seismic event and a radiological release due to a LOCA is not considered in the design basis.	Revision
6.4	2	6.4-004-6.4	6.4-3 [Am-68] Deletes "...in the plant ventilation discharge vent stacks and ...". The design no longer uses a signal from the plant vent stacks to switch to the recirculation mode. Note: SER revision will be required by this change.	Revision
6.4	2	6.4-010-6.4	6.4-7 [Am-55] A paragraph is added to explain why the infiltration of chlorine carried to the control room by the wind, is certain to be less than the exfiltration of air from a control room pressurized to 0.125 inch water gauge. This is related to the response to Q 312.27.	Addition
6.4	2	6.4-012-6.4	6.4-7 [Am-64] Deletes statement that isolation air exchange rate is half the pressurization rate at 1/8 inch w.g. Instead it now states that the isolation air exchange rate is "much less" than the pressurization rate. This supported by the plant specific analysis.	Revision
6.4	2	6.4-013-6.4	6.4-8 [Am-66] FSAR 9.4.1.3 Deletes reference to the statement that smoke detection in the control room air intake causes the control room HVAC system to automatically shift to the isolation mode and to stop the operation of the control room emergency pressurization unit. Upon detection of smoke the control room ventilation is manually shifted as stated in FSAR Section 9.4.1.3. SER/SSER IMPACT: SER Section 6.4, page 6-19, 2nd paragraph is not consistent as a result of this change.	Correction
6.4	2	6.4-015-6.4-X	6.4-11 [Am-64] This change updated the FSAR to allow the use of a plant specific analysis to determine the required isolation air exchange rate in lieu of the isolation air exchange rate specified in Table 1 of Regulatory Guide 1.95. This Guide requires an isolation air exchange rate of 425 cfm based on the volume of the control room isolation boundaries. The plant specific analysis demonstrates that 800 cfm is an acceptable isolation air exchange rate. An advance copy of this FSAR change was transmitted to the NRC in our letter TXX-6116 dated December 8, 1986.	Revision
6.4	2	6.4-018-6.4	6.4-12 [Am-55] A paragraph that described both control room air pressure measurement and outside makeup air flow was shortened by deleting the outside	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			makeup air flow measurement.	
6.4	2	6.4-025-6.4	T6.4-3 [Am-68] Adds the operator radiation doses to this table.	Revision
6.4	3	1AB-31-6.4-Y	1A(B)-47 [Am-64] Updates Regulatory Guide 1.78 commitment to reference the plant specific analysis. (Evaluated under evaluation no. 6.4-017-6.4-Y.)	Revision
6.4	3	6.4-001-6.4-W	6.4-1 [Am-66] This change revises the allowable beta skin for control room occupants during a LOCA, from 90 rem to 30 rem. Also, added statement that this allowable skin dose may be increased to 75 rem when special protective clothing and eye protection is used. This is a more conservative position than was previously stated and is consistent with NUREG-0800, Revision 2.	Revision
6.4	3	6.4-011-6.4	6.4-7 [Am-60] In describing control room sealing provisions, a sentence stating that "Shutoff and isolation dampers are of the zero leakage type" is deleted. The calculation of the allowable leakage does not require "zero leakage" dampers to provide acceptable results. The calculation uses leakages as required by Specification 2323-MS-84.	Correction
6.4	3	6.4-014-6.4-W	6.4-8 [Am-64] This change revises the allowable beta skin dose from 90 rem to 75 rem (with special protective clothing and eye protection).	Revision
6.4	3	6.4-017-6.4-Y	6.4-11 [Am-68] Adds a new paragraph to the Toxic Gas Protection section to describe the analysis performed to verify that the rupture of non-seismic refrigerant lines in the control room pressure boundary would not cause the refrigerant concentration released in the area to exceed acceptable levels.	Revision
6.4	3	6.4-022-6.4	T6.4-1 [Am-68] This table is revised to list noble gas and halogen inventories release after an accident (the table previously listed the instantaneous direct gamma source strength). The new table provides the source strength used in the CPSES design.	Revision
6.4	3	6.4-023-6.4	T6.4-2 [Am-68] Deletes this table. The data used in the CPSES design is found in Table 6.4-6.	Revision
6.4	3	6.4-026-6.4-X	T6.4-4 [Am-55] The anticipated air leakage from the control room is identified in T6.4-4. An up-to-date estimate is included allowing for 12	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			doors instead of only 5. Tornado Blowout Panels have a 262 cfm allowance, and a margin of 139 cfm is allowed for identified for unidentified leakage. The Table justifies the 800 cfm of make-up allowed by design.	
6.4	3	6.4-027-6.4	T6.4-4 [Am-64] Updates component leakage characteristics for potential control room leakage paths to better describe the as-built plant.	Update
6.4	3	6.4-028-6.4	312-30 [Am-55] documents the updating of the analysis for the Control Room pressuriza rate to conform to NUREG-0737, paragraph III.D.3.4.	Update
6.4	3	15.6-034-6.4-W	15.6-40 [Am-66] Since the calculated beta skin dose is less than the 75 rem value in 10 CFR 50, Appendix A, GDC 19, if special protective clothing and eye protection are used, it is indicated that these will be provided for use by the operators.	Update
6.4	4	6.4-002-6.4	6.4-2 [Am-68] Revises the table reference from 6.5-2 to 6.5-6.	Correction
6.4	4	6.4-005-6.4	6.4-4 [Am-68] Clarifies sentence to read "where continuous or frequent operator occupancy may be required" instead of "which require".	Clarification
6.4	4	6.4-006-6.4	6.4-4 [Am-68] Provides a more detailed listing of the rooms within the control room envelope.	Clarification
6.4	4	6.4-007-6.4	6.4-4 [Am-68] Provides the correct name for the control room HVAC and equipment rooms.	Correction
6.4	4	6.4-008-6.4	6.4-5 [Am-68] Revises referenced figure to 9.4-1.	Correction
6.4	4	6.4-009-6.4	6.4-5 [Am-68] Deletes previous reference to 10CFR50 App. A, GDC 19. This reference was not clear and is not necessary in this description.	Clarification
6.4	4	6.4-016-6.4	6.4-11 [Am-68] Defines the isolation mode as the preferred ventilation mode for chlorine events.	Clarification
6.4	4	6.4-019-6.4	6.4-13 [Am-56] The wording was changed from "Sufficient indications ... to evaluate performance" to the more explicit "Sufficient indications ...	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			for the operator to monitor HVAC system performance."	
6.4	4	6.4-020-6.4-X	6.4-16 [Am-64] TXX-6116, Dec. 8, 1986. References plant specific analysis for isolation air exchange rate.	Correction
6.4	4	6.4-021-6.4-Y	6.4-16 [Am-68] Adds new reference for the analysis of the toxic effects of a refrigerant release.	Correction
6.4	4	6.4-024-6.4	T6.4-3 [Am-68] Adds footnote to indicate that the control room is in the isolation mode during chlorine or smoke events and thus the control room is not pressurized.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description ,Page Numbering per Am-68)	Change Classification
6.5.1	1	3.5-021-6.5.1	T6.5-1 [Am-66](Shts. 3 and 5) This change revises the table to reflect and clarify the exception to NRC Regulatory Guide 1.52, for parts C.2.g and C.3.h. For part C.2.g, alarm annunciators are used in the control room for filtration units used for post-DBA to monitor design limits. For part C.3.h, check valves are used in lieu of seals or traps in the water drains. Where demister compartments have neither seals, traps nor check valves, bypass through the drain is filtered before discharge through the stack. SER/SSER IMPACT: SER Sections 6.5.1.1, page 6-20, 4th paragraph; 6.5.1.2, page 6-21, first paragraph and 6.5.1.3, page 6-21, and second paragraph indicates that, "the ESF exhaust filtration system is designed and meets recommendations of NRC Regulatory Guide 1.52". By this FSAR-CR, SER needs to indicate the exception to Regulatory Guide 1.52, Revisions 1 and 2. SSER No 4, Section 9.4.4, page 9-2, first paragraph indicates "the safeguard ventilation system meets the requirements of part C.2 of NRC Regulatory Guide 1.52". By this FSAR-CR SER needs to be revised to indicate the exception to NRC Regulatory Guide position C.2.g.	Revision
6.5.1	3	6.5-00.-6.5.1	6.5-4 [Am-66] Clarifies the design of safety related ductwork by referencing ANSI N509-1980 as the appropriate standard for the specific allowable ductwork leakage rates. The previous reference to "zero-leakage type" ductwork was ambiguous and indeterminate. This revision provides clear leakage criteria.	Revision
6.5.1	3	6.5-020-6.5.1	T6.5-1 [Am-59] Previously this table included an analysis of both the ESF and the non-ESF Primary Plant exhause system with respect to R.G. 1.52. The major change to the table was the deletion of the column describing the non-ESF system consistent with the changes to the ventilation system as described in Sec. 9.4. For Regulatory Position 3i, the absorber efficiency reference was changed from R.G. 1.52 to ANSI N509-1976. For Regulatory Position 5, the reference to ANSI-N510 was updated from 1975 to 1980.	Revision
6.5.1	4	6.5-002-6.5.1	6.5-5 [Am-66] Clarifies the instrument application of ESF filter units for recording and monitoring of flow rates and pressure drops from the control room.	Clarification
6.5.1	4	: -028-6.5.1	T6.5-7 [Am-59] FSAR references were updated.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
6.5.2	1	6.5-018-6.5.2	6.5-20 [Am-66] Provides a description of the more realistic two region model used to describe the sprayed/unsprayed regions of containment. The overly conservative three region model used previously resulted in unnecessarily high control room doses. The two region model assumes convective mixing between all sprayed and unsprayed volumes because of the numerous air flowpaths connecting these volumes. The specific assumption used, that mixing occurs at the rate of two turnovers per hour, is consistent with the recommendations of NUREG-0800, Rev. 1.	Revision
6.5.2	1	6.5-027-6.5.2	T6.5-6 [Am-68] Revises the table based on the Westinghouse, "Radiation Analysis Design Manual, Standard Plant Model 412," Revision 3 as applied to CPSES.	Revision
6.5.2	2	6.5-007-6.5.2	6.5-14 [Am-68] Revises opening time of the spray pump isolation valves. The new opening time is based on controlled throttling of the discharge flowrate to prevent the containment spray pump runout.	Revision
6.5.2	2	6.5-008-6.5.2-Z	6.5-15 [Am-66] This change revises the Containment free volume from 2.985 million cubic feet to 3.031 million cubic feet, effective sprayed Containment volume from 1.725 million cubic feet to 1.717 cubic feet, and the fractional volume spray coverage from 57.8 percent to 56.7 percent. SER/SSER IMPACT: SER Subsection 6.5.2, page 6-22, first paragraph is not consistent as a result of this change.	Revision
6.5.2	3	6.2-20-6.5.2	F6.2.2-1 [Am-67] Revises figure to add 4 suction relief valves to protect containment spray pump suction lines from over pressurization in the event of a single pump test with leakage to the non-operating pump suction.	Revision
6.5.2	3	6.5-010-6.5.2-Z	6.5-17 [Am-66] Deletes the reference to "conservatively high estimate" for the containment free volume. The actual free volume is revised from 2.985 million cubic feet to 3.031 million cubic feet.	Revision
6.5.2	3	6.5-011-6.5.2-Z	6.5-17 [Am-66] This change revises the total volume of Region A from 2.273 million cubic feet to 2.309 million cubic feet, the spray volume for Region A 1.669 million cubic feet to 1.665 million cubic feet, and the Region A spray coverage from 73.4 percent 72.1 percent.	Revision
6.5.2	3	6.5-012-6.5.2-Z	6.5-18 [Am-66] This change revises the total volume of Region B from 0.165 million cubic feet to 0.168 million cubic feet, and Region B spray coverage	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			from 24.9 percent to 24.4 percent.	
6.5.2	3	6.5-013-6.5.2-Z	6.5-18 [Am-66] This change revises the total volume of Region C from 0.072 million cubic feet to 0.073 million cubic feet.	Revision
6.5.2	3	6.5-014-6.5.2-Z	6.5-18 [Am-66] This change revises the spray volume for Region D from 0.008 million cubic feet to 0.005 million cubic feet and the Region D spray coverage from 6.4 percent to 4.3 percent.	Revision
6.5.2	3	6.5-016-6.5.2-Z	6.5-18 and 6.5-19 [Am-66] This change revises the total volume of Region E from 0.350 million cubic feet to 0.356 million cubic feet.	Revision
6.5.2	3	6.5-017-6.5.2-Z	6.5-20 [Am-68] Provides the total volume in containment which is sprayed and the percentage of containment free volume which that represents.	Revision
6.5.2	3	6.5-019-6.5.2	6.5-26 [Am-66] Deletes the statement concerning horizontal velocity component as this statement is incorrect. Current assumption reduces drop exposure time to a conservative minimum value.	Correction
6.5.2	3	6.5-022-6.5.2-Z	T6.5-1 [Am-66] This change revises the Table to reflect volume changes provided previously in the text revisions (Section 6.5).	Revision
6.5.2	3	6.5-023-6.5.2-Z	T6.5-1 [Am-66] This change revises the Table to be consistent with the two region containment spray model adopted and described on page 6.5-20.	Revision
6.5.2	4	6.2-2-6.5.2-B	6.2-60 [Am-68] Corrects the design pressure of the suction lines from the recirculation sumps and RWST from 50 psig to 70 psig.	Correction
6.5.2	4	6.2-7-6.5.2	6.2-72 [Am-68] Clarifies the automatic functioning of the containment spray pump minimum recirculation lines.	Clarification
6.5.2	4	6.2-10-6.5.2	T6.2.2-1[Am-68](sheet 1) Changes the number of Unit 1 containment spray nozzles to reflect the as-built condition.	Correction
6.5.2	4	6.2-12-6.5.2	T6.2.2-1[Am-68](sheet 2) Revises the overall heat transfer coefficient of the containment spray heat exchanger to reflect the as-installed equipment.	Correction
6.5.2	4	6.2-13-6.5.2-B	T6.2.2-1[Am-68](sheet 3) Corrects the design pressure of the spray suction lines.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
6.5.2	4	6.2-15-6.5.2	T6.2.2-4 [Am-66] This change revises the material designation used for the Containment Spray System eductors from SA 351 CF8 to SA-182 Grade F 304.	Correction
6.5.2	4	6.2-16-6.5.2	F6.2.2-1 [Am-67] Revises drawing to correctly number the temporary strainers in the containment spray pump suction lines.	Editorial
6.5.2	4	6.2-18-6.5.2	F6.2.2-1 [Am-67] Revises drawing to correct the pipe schedules in Note 6. Also shows valve 1CT-150 as locked closed.	Correction
6.5.2	4	6.2-19-6.5.2	F6.2.2-1 [Am-67] Corrects valve symbols on several valves from gate valves to globe valves.	Correction
6.5.2	4	6.2-21-6.5.2	F6.2.2-1 [Am-67] Revises drawing to indicate manual isolation valves used as the Safety Class 2 interface are locked closed as required by GDC 56. Also the vent, drain and test connection valves are revised to show class 2 interfaces where required.	Correction
6.5.2	4	6.5-003-6.5.2	6.5-10 [Am-68] Adds number of spray nozzles (48) in the lower ring. This number was previously inadvertently omitted.	Correction
6.5.2	4	6.5-004-6.5.2	6.5-11 [Am-66] This change revises the elevation of the lower ring nozzles from 1065 feet 11 inches to 1065 feet 10 inches.	Correction
6.5.2	4	6.5-005-6.5.2	6.5-11 [Am-66] Changes the description of the nozzle orientation from "horizontally outward" to inclined downward at angle of 45 degrees away from the containment center.	Correction
6.5.2	4	6.5-006-6.5.2	6.5-11 [Am-68] Revises the orientation and number of nozzles for the Region B spray headers.	Correction
6.5.2	4	6.5-009-6.5.2	6.5-16 [Am-66] This change corrects the minimum spray fall height for Train A from 115 feet 9 inches to 117 feet 1 inch, and for Train B from 117 feet 1 inch to 115 feet 9 inches.	Correction
6.5.2	4	6.5-015-6.5.2	6.5-18 and -19 [Am-66] Provides an expanded description of containment "unsprayed volumes."	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
6.5.2	4	6.5-024-6.5.2	T6.5-1 [Am-66] Revises the spray drops fall height to be consistent with the height provided in the text on page 6.5-11.	Correction
6.5.2	4	6.5-025-6.5.2	T6.5-5 [Am-66] Revises the number of nozzles per train to be consistent with the numbers provided in the text on page 6.5-10.	Correction
6.5.2	4	6.5-026-6.5.2	T6.5-5 [Am-66] Provides clarifying footnotes.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
6.6	4	6.6-001-6.6	Sec. 6.6 [Am-66] Section 6.6 is being reissued with new format for change bars and sheets renumbered with typographical errors corrected.	Editorial
6.6	4	6.6-002-6.6	Sec. 6.6 [Am-66] This new format, in general, omits the code year applicable to inservice inspections. It is unnecessary and impractical to give a particular code year because 10CFR50.55a provides the requirements for inservice inspection based upon issuance of the operating license and reestablishes it on a 10- year interval. This change provides a clearer description in reference to 10CFR50.55a eliminating potential for confusion and misinterpretation. A sentence on ultrasonic examinations is deleted because IWA-2232 of ASME XI does not limit UT examinations to the provisions of Section XI and Article 4 of Section 5.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
6.6.1	2	10.3-004-6.6.1	10.3-4 [Am-55] Deletes a sentence describing the non-nuclear inservice inspection program. The Inservice Inspection Program does not apply to the main steam supply system downstream of the main steam isolation valves.	Revision
6.6.1	3	6.6-003-6.6.1	6.6-1 [Am-55][Am-66] The codes governing pre-service and inservice inspection were updated to 1980 by Amendment 55 and updated again in Amendment 66.	Update
6.6.1	3	6.6-004-6.6.1	6.6-3 [Am-66] Adds new Section 6.6.8 describing augmented inservice inspection requirement.	Addition
6.6.1	3	6.6-005-6.6.1	112-3a [Am-66] Deletes the previous response to item b of this question and refers to the augmented inservice inspection program for main steam and feedwater pips presented in Section 6.6.8.	Revision

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SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification

Total Records Processed : 222

Chapter 06
EVALUATIONS SUMMARY BY ALPHA DESIGNATOR

ALPHA	GROUPS 1	2	3	4	TOTAL
	4	14	39	72	129
A			5		5
B				2	2
C		1	2		3
D			7		7
E		2	11		13
F				3	3
G				3	3
H			3		3
I			2		2
J			3		3
K				4	4
L		2			2
M			5		5
O				2	2
P			3		3
Q			2		2
R			3	1	4
S		1	1		2
T			2		2
U			2		2
V			2		2
W			3		3
X		1	1	1	3
Y			2	1	3
Z		1	9		10

Chapter 06

EVALUATIONS SUMMARY BY ALPHA DESIGNATOR

ALPHA	GROUPS 1	2	3	4	TOTAL
Totals :	4	22	107	89	222
Factored Totals :	4	20	58	80	162

TU Electric FSAR Change Review Information

EVALUATIONS SUMMARY BY GROUP
Chapter : 06

SER	GROUPS 1	2	3	4	TOTAL
06.01.1				1	1
06.01.2			6		6
06.02.0		2		1	3
06.02.1				2	2
06.02.2		1	2	1	4
06.02.3		7	46	31	84
06.02.4		1	9	5	15
06.02.5		1	7	7	15
06.03.2			9	5	14
06.03.3				1	1
06.03.4			1	1	2
06.04.0	1	7	11	11	30
06.05.1	1		2	2	5
06.05.2	2	2	11	19	34
06.06.0				2	2
06.06.1		1	3		4

TU Electric FSAR Change Review Information

EVALUATIONS SUMMARY BY GROUP

Chapter : 06

	GROUPS				
SER	1	2	3	4	TOTAL
TOTAL :	4	22	107	89	222

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SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
7.1.2	2	7.1-5-7.1.2	7.1-37, 38 [Am-56] Adds component cooling water non-safeguard loop isolation valves to be routinely tested during refueling outages.	Addition
7.1.2	2	7.1-12-7.1.2	F7.1-3 [Am-66](sht 2/36) Reflects addition of qualified Post-Accident Neutron Flux Monitoring Instrumentation.	Update
7.1.2	3	7.1-1-7.1.2-E	7.1-10 [Am-66] Adds the UPS ventilation system to the ESF support systems to be consistent with other such listings in Chapter 7.0 of the FSAR.	Correction
7.1.2	3	7.1-3-7.1.2	7.1-25, 26 and 27 [Am-66] Adds reference to WCAP-8892-A, "Westinghouse 7300 Series Process Control System Noise Tests," June 1977, for the BOP Analog Instrumentation System, which was previously omitted. The report demonstrated that the train orientation and wiring techniques used in the 7300 Process Control System meet the requirements of R.G. 1.75 and have been accepted by the NRC.	Correction
7.1.2	3	7.1-10-7.1.2-E	7.1-43 [Am-66] Adds the UPS ventilation system to the ESF support systems to be consistent with other such listings in Chapter 7 of the FSAR.	Correction
7.1.2	3	7.1-11-7.1.2	T7.1-2 [Am-66] Deletes applicability of Regulatory Guide 1.105 for containment isolation. The actuating signals for the containment isolation functions are inherent to the ESF actuating system (i.e. safety injection, containment spray, etc.), and therefore any applicability of these setpoints per the Regulatory Guide are noted under the individual function.	Correction
7.1.2	3	7.1-13-7.1.2	7.1-10 and 7.1-15 [Am-66] Distinguishes between NSSS and BOP Class 1E Uninterruptible Power Supplies (UPS). To be consistent with Section 8.3 of the FSAR, the UPS for the NSSS Reactor Protection System will be be titled "Class 1E Static UPS" to avoid confusion when referencing these systems.	Correction
7.1.2	3	7.1-14-7.1.2	7.1-15 [Am-63] Reflects the correct year, 1974, for IEEE Standard 308 which CPSES complies to.	Correction
7.1.2	4	1AB-27-7.1.2	1A(B)-44 [Am-66] Adds cross reference to the description in Section 7.1.2.2 for BOP Instrumentation Separation requirements.	Addition

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
7.1.2	4	1AN-4-7.1.2	1A(N)-31 [Am-66] Clarification to reflect that CPSES BOP systems meet the single failure criterion as specified in Regulatory Guide 1.53.	Clarification
7.1.2	4	7.1-2-7.1.2	7.1-12 [Am-66] Revises text to be consistent with revisions made to Section 7.5. Deletes the incorrect reference to T.5-1 since this table does not reflect instrument accuracies.	Editorial
7.1.2	4	7.1-4-7.1.2	7.1-37 [Am-56] Corrects title of subsection to include "...cooling water supply and return..." instead of "cooling water and return...".	Editorial
7.1.2	4	7.1-6-7.1.2	7.1-38 [Am-56] Changes "...valves introduce" to "...valves would introduce..."	Editorial
7.1.2	4	7.1-8-7.1.2	7.1-38 [Am-56] Changes "...testing of the component..." to "...testing of the subject component..."	Editorial
7.1.2	4	7.1-9-7.1.2	7.1-41 [Am-66] Reflects that the Safety System Inoperable Indication audible alarm is sounded only during bypass activities which are automatically indicated.	Clarification
7.1.2	4	7.1-15-7.1.2	7.1-26 [Am-68] Adds word "Series" which was inadvertently omitted from the title for the 7300 Series Process Control Equipment.	Correction
7.1.2	4	7.1-16-7.1.2	040-18 [Am-66] Reflects that the "Diesel Generator Power" window on the Safety System Inoperable Indication panel is activated by those conditions that render the diesel Generator inoperable for auto start during emergency conditions instead of the SSII system performing this function.	Clarification
7.1.2	4	7.5-2-7.1.2	7.5-3 [Am-66] Implements term of "continuous display" instead of "immediately accessible display".	Clarification
7.1.2	4	7.6-1-7.1.2	7.6-1 [Am-66] Clarifies the distinction between NSSS and BOP Class 1E Uninterruptible Power Supplies (UPS). To be consistent with section 8.3 of the FSAR, the UPS for the NSSS Reactor Protection System will be titled "Class 1E 118VAC UPS" and the UPS for the BOP systems will be titled "Class 1E Static UPS" to avoid confusion when referencing these systems.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
7.2.1	2	7.2-1-7.2.1	7.2-19 [Am-66] Describes the functional removal and plugging of the RTD bypass manifold connections.	Revision
7.2.1	2	7.2-2-7.2.1	7.2-19 [Am-55] Adds the commitment to submit N-16 TTFM performance data collected during first cycle of CPSES to NRC for review and evaluation.	Addition
7.2.1	3	1AN-7-7.2.1	1A(N)-57 and -58 [Am-66] Regulatory Guide 1.105, Rev. 2 endorses ISA- S67.04-1982 in which design criteria for selecting safety-related setpoints are better defined and have been utilized in CPSES BOP safety-related setpoint calculations. This change revises the CPSES commitment from Revision 1 to Revision 2 of this Regulatory Guide. The descriptions are adjusted based on this change.	Revision
7.2.1	3	5.1-009-7.2.1-D	Notes to F5.1-2 [Am-68] Revises notes to delete references to RTD bypass manifold connections. The RTD bypass loops were capped as a result of a modification to install N-16 power monitors (for flow measurement) and cold leg RTD thermowells (for temperature measurement). Also updates loop process data.	Revision
7.2.1	3	5.2-017-7.2.1-D	T5.2-2 [Am-66](Sht. 3) Deletes reference to the RTD bypass loops. The bypass loops were capped as a result of a modification to install N-16 power monitors (for flow measurements) and cold leg RTD Thermowells (for temperature measurement).	Revision
7.2.1	3	5.4-008-7.2.1-D	5.4-44 [Am-66] Adds statement that hot leg bypass connections are plugged and not used, since N-16 power monitors were installed.	Revision
7.2.1	3	5.4-009-7.2.1-D	5.4-44 [Am-66] Deletes reference to the RTD bypass loops. The bypass loops were capped as a result of a modification to install N-16 power monitors (for flow measurements) and cold leg RTD Thermowells (for Temperature measurement).	Revision
7.2.1	3	5.4-010-7.2.1-D	5.4-45 [Am-66] Describes the functional removal and capping of the RTD bypass manifold connections.	Revision
7.2.1	3	5.4-011-7.2.1-D	5.4-45 [Am-66] Deletes item 7 which refers to the RTD Hot Leg Bypass Piping.	Revision
7.2.1	3	5.4-013-7.2.1-D	5.4-46 [Am-66] Adds (to the revised item 9) a statement that the hot leg bypass scoop element is plugged and not used.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
7.2.1	3	5.4-014-7.2.1-D	5.4-48 [Am-66] Deletes reference to loop bypass lines.	Revision
7.2.1	4	5.4-012-7.2.1-D	5.4-46 [Am-66] Renumbers remaining items because of the deletion of item 7.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
7.2.2	2	7.2-10-7.2.2	F7.2-1 [Am-67](Sheet 8) Deletes note 11 which referenced closure of the Main Steamline bypass valve. This note is being deleted because the Main Steamline bypass valves (i.e. HV-2333B, 2334B, 2335B, and 2336B) have been changed from being motor operated to being operated by handwheels. The change to handwheel operation was to assure the correct valve positions and enhance plant safety for an event, such as a faulted Steam Generator.	Revision
7.2.2	3	7.2-3-7.2.2	7.2-38, 40 [Am-55] Revises reference to setpoints in the CPSES Technical Specifications and/or the I&C Equipment List instead of the precautions, limitations and setpoints portion of the Plant Technical Manual.	Correction
7.2.2	3	7.2-4-7.2.2	7.2-39, 40 [Am-55] Provides more specific information on periodic testing of Nuclear Instrumentation System @ source, intermediate and power ranges.	Addition
7.2.2	3	7.2-6-7.2.2	F7.2-1 [Am-68](Sheet 8) Clarifies that Service Water is not the only ESF system which starts on receipt of a Safety Injection signal. Thus the functional diagram block was changed to "miscellaneous ESF/support systems start" which include component cooling water, service water and essential ventilation.	Correction
7.2.2	3	7.2-7-7.2.2	F7.2-1 [Am-67](Sheet 8) The functional block for emergency fan coolers was deleted since this information is categorized by miscellaneous ESF/support systems.	Correction
7.2.2	3	7.2-8-7.2.2	F7.2-1 [Am-67](Sheet 9) Adds a functional block for containment spray pump start to differentiate between pump start and spray actuation.	Addition
7.2.2	3	7.2-9-7.2.2	F7.2-1 [Am-67](Sheet 8) Deletes logic between the gas monitors in the stack and the control room. As part of a CPSES plant enhancement program, the existing control room intake monitors are being upgraded to Class 1E and additional monitors are being added to provided redundancy.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
7.3.1	2	7.3-1-7.3.1	7.3-11 [Am-56] Identifies that the spray additive tank discharge valves are initially opened by a spray actuation signal instead of a safety injection signal.	Correction
7.3.1	2	7.3-3-7.3.1	7.3-12 [Am-68] Deleted "RWST level" from the text since there is no local level indication at the RWST. In addition, the level alarm for the spray additive tank is "low-low" level alarm instead of "low" level alarm.	Revision
7.3.1	2	7.3-4-7.3.1	7.3-15 [Am-56] Clarifies that the manual override feature for containment isolation valves does not constitute a bypass of a protective function as defined in IEEE-279 since the channel is not removed from service.	Correction
7.3.1	2	7.3-5-7.3.1	7.3-28 [Am-66] Deletes the Auxiliary Feedwater Pumps low pump suction pressure as an interlock to match the as built plant design. These pressure switches as installed were disabled due to their potential to cause spurious trips and disable the Auxiliary Feedwater System.	Correction
7.3.1	2	7.3-11-7.3.1	T7.3-2 [Am-56](sht 2/2) Changes footnote about switch to actuate MSIV's and not main steam bypass valves.	Correction
7.3.1	2	7.3-14-7.3.1	T7.3-4 [Am-56](sht 1/13) Deletes equipment from the table due to design changes.	Correction
7.3.1	2	7.3-18-7.3.1	T7.3-4 [Am-55](sht 10, 11/13) Deletes equipment from table due to design changes. 1. X-HV-5758A Component Cooling Water Pump Room Supply Damper A Close 2323-M1-2303-05A 2. X-HV-5758B Component Cooling Water Pump Exhause valve A Close 2323-M1-2303-05A 3. X-HV-5762A Charging Pump Room Supply Damper A Close 2323-M1-2303-05A 4. X-HV-5764A Component Cooling Water Pump Room Supply Damper A Close 2323-M1-2303-05A	Correction
7.3.1	3	1AB-13-7.3.1	1A(B)-23 [Am-66] Clarification to reflect that CPSES BOP systems meet the single failure criterion as specified in R.G. 1.53.	Revision
7.3.1	3	7.3-13-7.3.1	T7.3-4 [Am-55](sht1/13) Changes ESFAS train designation for main FW bypass control valves to include both A & B.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
7.3.1	3	7.3-22-7.3.1	032-108 [Am-55] Insert response to 032.95 which was inadvertently dropped by Amendment 33.	Correction
7.3.1	3	7.3-24-7.3.1	7.3-8, 10 [Am-66] Clarifies difference between Containment Spray System and pump actuation. A P-signal or manual start will start the pumps and initiate spray inside containment. However, an S-signal only starts the pumps in recirculation mode.	Correction
7.3.1	4	7.3-2-7.3.1	7.3-11,-12 -18 and 7.3-22 [Am-66] Revises text to be consistent with revisions made to Section 7.5.	Editorial
7.3.1	4	7.3-6-7.3.1	7.3-31 -33, -36, -39 thru-41, and-45[Am-66] Revises text to be consistent with revisions made to Section 7.5.	Editorial
7.3.1	4	7.3-7-7.3.1	7.3-63 [Am-66] Previously, it was implied that the UPS Ventilation System provides input to the plant computer. Therefore, the reference to the plant computer points were delated.	Correction
7.3.1	4	7.3-12-7.3.1	T7.3-4 [Am-55](sht1/13) Revises footnote indicated by asterisk to list only Unit 1 safety related equipment actuated by either a spray actuation signal or containment isolation phase B signal (This comment applicable to all 13 pages of the table).	Clarification
7.3.1	4	7.3-15-7.3.1	T7.3-4 [Am-55] (Sheet 1, 2/13) Changes "Loops 1,2,3,4 Second Sampling Isolation Valve" to "Loops 1,2,3,4 Secondary Sampling Isolation Valves"; modifies drawing numbers for items 1FV-2181 through 1-HV-2452-2.	Editorial
7.3.1	4	7.3-16-7.3.1	T7.3-4 [Am-55](sht7,8/13) Modifies drawing numbers for items TBX-RHAPRH through 1-32010B.	Editorial
7.3.1	4	7.3-17-7.3.1	T7.3-4 [Am-55](sht 9/13) Editorial: Changes equipment identification number to address only Unit 1 equipment.	Editorial
7.3.1	4	7.3-19-7.3.1	T7.3-4 [Am-55](sht 11/13) Changes equipment identification number to address Unit 1 equipment only (Items CP1-VAFNID-07 through CP1-VAFNID-10, CP1-CHAPCP-05)	Editorial
7.3.1	4	7.3-20-7.3.1	T7.3-4 [Am-55](sht 11/13) Changes SIS signal function from half-open to part- open.	Editorial

SEP	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
7.3.1	4	7.3-21-7.3.1	T7.3-4 [Am-55](sht 12, and 13/13) Changes equipment identification number to address Unit 1 equipment only.	Editorial
7.3.1	4	7.3-23-7.3.1	T7.3-4 (Sheet 6/13) [Am-] Modifies equipment identification and drawing numbers for "RXTR Make-up Water Pump" through the fourth "Electrical Area Fan".	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
7.3.2	3	7.3-9-7.3.2	7.3-92, 93 [Am-56] Adds section to describe control switches for ESF final actuators to assure completion of protective function. Section discusses manual override meeting intent of IEEE 279 since channel is not removed from service.	Addition
7.3.2	3	7.3-10-7.3.2	7.3-92 [Am-68] Adds a description to clarify the difference between valves and dampers and the 6.9kV pump override circuits. For valve and dampers, the position of the spring actuated control switch determines the component position. When switched the components are in an alternate position and when released the components return to their original position. When pumps are switched to the stop position, the control switch must be held in the stop position if the sequencer has not timed out. However, if the sequencer has timed out, the pumps must be restarted manually when the initiating condition has cleared. Continuous indication when overriding a pump is displayed in the control room. The override and the indication is automatically removed when the initiating condition is cleared.	Correction
7.3.2	4	7.3-8-7.3.2	7.3-91 [Am-56] Changes statement about main steam system level switches to only actuate MSIC's and not main steam bypass valves.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
7.4.1	2	7.4-7-7.4.1	7.4-19 and -21 [Am-66] Adds Control Room HVAC Mechanical Equipment Room to the description of fire locations that require remote shutdown capabilities.	Addition
7.4.1	2	7.4-10-7.4.1	7.4-19 [Am-68] Identifies type of cause for which a Control Room evacuation is expected and for which the event could degrade Control Room equipment.	Correction
7.4.1	2	7.4-11-7.4.1	7.4-19 [Am-57] Changes from four to five the number of fires postulated as requiring remote shutdown.	Addition
7.4.1	2	7.4-12-7.4.1	7.4-22 [Am-66] Adds "Train B" transfer switches into the discussion of electrical isolation of components between Hot Shutdown Panel (HSP) and Control Room circuits. This reflects "as-built" conditions and the use of Train A equipment required for operability as well as those required Train A and Train B switches for equipment which are credited to mitigate and/or prevent potential spurious operations.	Correction
7.4.1	2	7.4-18-7.4.1	7.4-26 [Am-66] Adds Control Room HVAC Mechanical Equipment Room to the description of fire locations that require remote shutdown capability to reflect "as built" design.	Addition
7.4.1	2	7.4-23-7.4.1	T7.4-1 [Am-64] Change reflects addition of qualified Post-Accident Neutron Flux Monitoring Instrumentation on the Hot Shutdown Panel.	Addition
7.4.1	2	7.4-25-7.4.1	T7.4-1 [Am-55](sht 1) Adds boric acid transfer pump 2; deletes (A) from boric acid transfer pump 1.	Addition
7.4.1	2	7.4-26-7.4.1	T7.4-1 [Am-55](sht2) Deletes (A) from items 1-HS-4099FL, 1-HS-4514FL, 1-HS-4524FL and 1-HS-4526FL; (A) Alternate Shutdown Notation.	Correction
7.4.1	2	7.4-28-7.4.1	T7.4-1 [Am-55](sht 4) Deletes (A) from item 1/1-PCPRIL; (A) Alternate Shutdown Notation.	Correction
7.4.1	2	7.4-31-7.4.1	T7.4-2 [Am-55](sht 1, 3,4 and 5) Deletes (A) from item FI-121B (Sheet 1) Adds (A) to items V-1EA1-L and F-1EA1-L Deletes (A) from items 1-ZL-2453C and A-ZL-24530	Addition
7.4.1	2	7.4-36-7.4.1	T7.4-3 [Am-55](sht 1) Deletes (A) from items HS-4699FT, HS-4514FT, HS-4524FT, HS-4526FT and 43/1-APBA1L.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
7.4.1	2	7.4-38-7.4.1	T7.4-3, [Am-65](Shts. 1 and 2) Added a note to the tables to clarify the operational condition of the Train B RHR valve. Switches are available for control, but during normal operation the valve is not available until the breaker is inserted.	Correction
7.4.1	2	7.4-39-7.4.1	T7.4-1 [Am-65](Sht. 2) T7.4-3 [Am-65](Sht. 1) Added alternate shutdown notation (A) for valve 1-HS-4514. This valve is available at the hot shutdown panel through the shutdown transfer panel to isolate Train A CCW loop from the Train B and non-safeguards loop.	Correction
7.4.1	2	7.4-40-7.4.1	T7.4.2 [Am-56](sht 1) Deletes (A) from items FK-2453C and FK-24530.	Correction
7.4.1	2	7.4-52-7.4.1	T7.4-3, [Am-65](Sht. 3) Eliminates note (A) from the pressurizer heater43/1-PCPRIL. The pressurizer heater is not required for alternate shutdown.	Correction
7.4.1	3	7.4-13-7.4.1	7.4-22 [Am-66] Clarifies control circuits as isolated from Control Room by use of transfer switches positioned in the as- marked "HSP" position.	Correction
7.4.1	3	7.4-15-7.4.1	7.4-22 [Am-66] The HSP and Alternate Shutdown operability is only required in specific areas of the plant. This completes the statement for those areas requiring the HSP by describing that the loss of control circuit occurs in the Control Room/Cable Spreading areas.	Correction
7.4.1	3	7.4-16-7.4.1	7.4-22 [Am-66] Clarifies that the single event is a fire and that this design requirement does not apply to all redundant systems, but only to those systems required for alternate shutdown capability.	Correction
7.4.1	3	7.4-20-7.4.1	7.4-26 [Am-66] Clarifies that the "required" Train A and/or required Train B "fire safe" shutdown control circuits and "process" monitoring circuits are independent of all the "Alternate Shutdown Areas".	Correction
7.4.1	3	7.4-24-7.4.1	T7.4-1 thru 7.4-3 [Am-66] Clarified the description of switches to reflect current design.	Correction
7.4.1	4	7.4-1-7.4.1-A	7.4-2, 4 and throughout Section [Am-60] Changes the words "atmospheric steam relief valves" to "steam generator safety valves" or to "steam generator power-operated relief valves" as appropriate. This is a necessary clarification	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			of terms since only the safety valves are required for Hot Standby. The power operated relief valves are used to control decay heat removal where the condenser is not in service.	
7.4.1	4	7.4-4-7.4.1	7.4-6 [Am-60] Changes the sentence on redundancy. Only the safety valves are required for hot standby and safe shutdown and the correct redundancy for them is that two of four are required. The same redundancy also exists for the power-operated relief valves.	Clarification
7.4.1	4	7.4-5-7.4.1	7.4-6 [Am-60] Deletes sentence under diversity which says "The safety and relief valves are of diverse design." Although this is true, it could mislead the reader to believe that more than the safety valves are required for safe shutdown.	Clarification
7.4.1	4	7.4-6-7.4.1	7.4-12 [Am-55] Clarifies that the alternate source for additional boration, if necessary, is the RWST.	Clarification
7.4.1	4	7.4-8-7.4.1	7.4-19 and -21 [Am-66] Included in the description of shutdown locations, the Local Controls to clarify locations of required actions.	Clarification
7.4.1	4	7.4-9-7.4.1	7.4-20 [Am-57] Changes sentence from "...utilizing either surviving train..." to "...utilizing surviving equipment."	Editorial
7.4.1	4	7.4-14-7.4.1	7.4-22 [Am-66] Deletes statement concerning cable runs external to the HSP because it adds nothing to the protection schemes presently employed.	Clarification
7.4.1	4	7.4-17-7.4.1	7.4-24 [Am-55] Changes statement from "...using boric acid transfer pumps and charging pumps" to "...using boric acid transfer pumps, if available, and charging pumps."	Clarification
7.4.1	4	7.4-19-7.4.1	7.4-26 [Am-66] Clarifies that this provision is applicable to only required Train A circuit controls being transferred.	Clarification
7.4.1	4	7.4-22-7.4.1	T7.4-1 [Am-64] Reissues full table with new format for change bars and sheets renumbered.	Editorial
7.4.1	4	7.4-27-7.4.1	T7.4-1 [Am-56](sht 3) Changes "...isolation and bypass valve local control" to "...isolation valves local control" on items 1-HS-2333FL through 1-HS-2336FL.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
7.4.1	4	7.4-32-7.4.1	T7.4-2 [Am-60](sht 3) Corrects typographical error of "A-1EG-1L to "A-1EG1-L".	Editorial
7.4.1	4	7.4-35-7.4.1	T7.4-2 [Am-60](sht 3) Adds to Table "A-1EG2-L 6900-V bus 1EA2, onsite source amperes". This instrument is also located on the Hot Shutdown Panel but the function had previously been listed for a similarly numbered instrument.	Correction
7.4.1	4	7.4-37-7.4.1	T7.4-3 [Am-56](sht 2) Changes "main steam loops 1,2,3,4 isolation and bypass valves..." to "main steam loops 1,2,3,4 isolation valve..."	Clarification
7.4.1	4	7.4-49-7.4.1	010-33 [Am-66] Changes the word "at" to "as".	Editorial
7.4.1	4	7.4-51-7.4.1	212-149 [Am-65] Correct typographical errors by the deletion the repeated phrase "while be prepared in accordance with the existing condtions" and changes "Section 7.4.1.4.1" to Section 7.4.1.3.3".	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
7.4.2	2	7.4-21-7.4.2	7.4-29 [Am-65] Adds reference to WCAP-11311, "CPSES Thermal Hydraulic Analysis of Fire Safe Shutdown Scenario", and the fire safe shutdown analysis.	Addition
7.4.2	3	7.4-41-7.4.2	010-59 [Am-60] Reflects the completion of the breaker/fuse coordination study and indicates that the Fire Safe Shutdown Analysis addresses these conditions as associated circuits as required.	Update
7.4.2	4	7.4-43-7.4.2	010-63 [Am-66] Adds "potential" to identify the types of spurious operation. This is added to distinguish the host of "potential" fire induced spurious operations due to a fire, from "actual" spurious operations which are addressed separately as single or random failures, etc. It is important to stress that all the spurious operations being discussed due to a fire are only a "potential" problem.	Clarification
7.4.2	4	7.4-44-7.4.2	010-63 [Am-66] Deletes reference to Table 4.1-4 from the superseded FPPR by the Fire Protection Report, which indicates that this is available in other site documents.	Update
7.4.2	4	7.4-45-7.4.2	010-64 [Am-66] Replaces "STP" with "Shutdown Transfer Panel (STP).	Editorial
7.4.2	4	7.4-46-7.4.2	010-64 [Am-66] Specifies the applicability of CPSES Procedure ABN-803A and required operator actions for safe shutdown.	Clarification
7.4.2	4	7.4-47-7.4.2	010-64 [Am-66] Added statement to verify required post fire operator actions for other fire areas exist in plant procedures.	Addition
7.4.2	4	7.4-48-7.4.2	010-64 [Am-66] Deletes all references to tables in the FPPR, because the FPPR has been superseded by the FPR and this information is now available in other site documents.	Editorial
7.4.2	4	7.4-50-7.4.2	010-64 [Am-66] Replaces "STP" with "Shutdown Transfer Panel (STP).	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
7.5.1	2	7.5-6-7.5.1	7.5-5 [Am-66] Adds subsection 7.5.1.1.1.1 entitled "Diverse Variable" and provides definition for diverse variable.	Addition
7.5.1	2	7.5-13-7.5.1	7.5-10 [Am-66] Deletes discussion on redundant sensor checking through the Emergency Response Facilities Computer System since the actual potential for using this method is small.	Revision
7.5.1	3	5.1-002-7.5.1	F5.1-1 [Am-67](sheet 1) Adds a third channel for the Accident Monitoring variable RCS pressure to measure Loop 2 hot leg RCS wide range pressure. The third channel (i.e. pressure transmitter) is required per Reg. Guide 1.97 Rev. 2 to provide additional information where failure of one channel results in information ambiguity. The third channel will be qualified from sensor to and including the channel isolation device.	Addition
7.5.1	3	7.5-3-7.5.1-A	7.5-4,7,19, T 2.5-3 [Am-66] Changes wording of five of the six critical safety functions to utilize the same terminology as the Emergency Response Procedures. (No change in content).	Correction
7.5.1	3	7.5-4-7.5.1	7.5-5 [Am-66] Adds subsection 7.5.1.1.9 entitled "Preferred Backup Variables" and includes concise definition that these variables provide the most direct measure of the required information.	Addition
7.5.1	3	7.5-8-7.5.1	7.5-7 [Am-56] Identifies that the definition of Type D variables envelopes variables which provide verification of actuation of safety systems.	Correction
7.5.1	3	7.5-12-7.5.1	7.5-9 and 7.5-10 [Am-66] Changes statement from "...from sensor to display." to "from sensor to a direct-indicating meter or recording device."	Correction
7.5.1	3	7.5-14-7.5.1	7.5-10 [Am-66] Deletes discussion on unambiguous indication of isolation valves since they are not Category 1.	Correction
7.5.1	3	7.5-16-7.5.1-C	7.5-12,14 [Am-66] Provides a more specific commitment with respect to Category 1 equipment testing as previously submitted in response to Question Q032.140.	Correction
7.5.1	4	7.5-1-7.5.1	7.5-1 [Am-66] Identifies that Type A variables are those that provide information needed by operators to perform manual actions identified in	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			Emergency Response Procedures.	
7.5.1	4	7.5-5-7.5.1	7.5-5 [Am-66] Changes subsection 7.5.1.1.9 to 7.5.1.1.10 and changes "Backup Information" to "Backup Variable".	Editorial
7.5.1	4	7.5-7-7.5.1-B	7.5-7,17,21 [Am-68] Added the word "variables" after Type A to be consistent with the terminology used throughout the chapter.	Editorial
7.5.1	4	7.5-10-7.5.1	7.5-8 [Am-66] Clarifies the description for the Type E variable to be more concise.	Clarification
7.5.1	4	7.5-11-7.5.1	7.5-9 [Am-66] Changes the description of operator action from "necessary" to "preplanned".	Clarification
7.5.1	4	7.5-17-7.5.1	7.5-13 [Am-66] Describes, more specifically, the portions of Category 2 channels which are seismically qualified.	Clarification
7.5.1	4	7.5-26-7.5.1	7.5-20 [Am-66] Changes "Backup information..." to "Backup variable..." which makes statement more concise.	Clarification
7.5.1	4	7.5-33-7.5.1	T7.5-1 [Am-66] Deletes "Testability" and "Channel Out of Service" items because their meanings are ambiguous in the table. Testing and Channel Out-of-Service provisions are adequately discussed in test.	Clarification
7.5.1	4	7.5-34-7.5.1	T7.5-1 [Am-66] Revised table title from "Summary of Design,..." to "Summary of Minimum Design,...". Other table entries are revised to be consistent with text.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
7.5.2	2	7.5-22-7.5.2	7.5-18 [Am-66] Deletes the parameter Containment Radiation Level from the list of Type A parameters since no preplanned operator actions will be based on this parameter in the Emergency Response Procedures.	Revision
7.5.2	2	7.5-40-7.5.2	T7.5-4 [Am-66] Deletes "Wide Range (Hot)" as variable monitored as fuel cladding function.	Revision
7.5.2	2	7.5-47-7.5.2	T7.5-4 [Am-66] Changes "Adjacent Building Radiation variable from a primary backup to a "Area Radiation Level Adjacent Containment" as a backup variable (Changes variable from c2 to c3).	Revision
7.5.2	2	7.5-48-7.5.2	T7.5-4 [Am-66] Identifies which Containment Isolation Valves are monitored.	Correction
7.5.2	2	7.5-49-7.5.2	T7.5-5 [Am-66] The entire table has undergone many changes as a result of a CPSES initiated study of the proper Type D variables. Several variables have been added. Pressurizer heater breaker position has been replaced with "Heater Current" as a D2 variable. RCS Pump Motor Current changes from D2 to D3 which is consistent with Regulatory Guide 1.97, Rev. 2. Component Cooling Water Header Pressure changes form a Key variable (D2) to a Backup variable (D3) which is also consistent with Regulatory Guide 1.97, Rev. 2. Most other changes reflect additions or upgrades from Backup to a Key variable or upgrade in Category.	Revision
7.5.2	2	7.5-54-7.5.2	T7.5-6 [Am-66] Changes the category for meteorological parameters from Category 2 to Category 3. These parameters have been designated as backup variables. In a similar manor, Environs Radiation also changes to Category 3, backup. These variables backup the radiological release parameters. Consistent with R.G. 1.97 Rev. 2.	Revision
7.5.2	2	7.5-56-7.5.2	T7.5-7 [Am-66] Summarizes data in Table 7.5-2 through 7.5-6. Takes exceptions to four variables that are monitored by other parameters: 1) Boric Acid Charging Flow; 2) Containment Sump Water Temperature; 3) Reactor Shield Building Annulus; 4) Heat Removal by Containment Fan Heat Removal System.	Revision
7.5.2	2	7.5-60-7.5.2	T7.5-7 [Am-66] Implements EQ requirements for Main Steam Line Radiation, Steam Generator Blowdown and Condenser Off-Gas Radiation.	Revision
7.5.2	2	7.5-64-7.5.2	T032.110-1 [Am-64](Sht. 1, 3, 4 and 5) Change reflects addition of qualified Post-Accident Neutron Flux Monitoring Instrumentation. (Gives new instrument numbers, ranges	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			and qualification requirements.)	
7.5.2	3	TMI-029-7.5.2	III.A-12 [Am-68] Section 7.5.3.8 references Section III.A.1.2 for the Accident Monitoring variables which are inputs to the ERF computer. This information was previously omitted from Section III.A.1.2 and is now being added.	Addition
7.5.2	3	7.5-20-7.5.2	7.5-17 [Am-66] Adds RCS Subcooling (Saturation Margin) as a Type A Category 1 variables since it is relied up in the revised Emergency Response Procedures for preplanned operator actions.	Addition
7.5.2	3	7.5-29-7.5.2	7.5-21 [Am-66] Charges "Secondary Pressure and Level Controls..." to "Main Steam and Feedwater Systems..." to better describe the CPSES design.	Correction
7.5.2	3	7.5-32-7.5.2	7.5-22 [Am-66] Designates Containment radiation level as Category 1 to be consistent with R.G. 1.97. Identifies that all other key Type E variables have been designated Category 2.	Revision
7.5.2	3	7.5-37-7.5.2-D	T7.5-3 [Am-66] (Sht. 1) Deletes "Secondary System Radiation" with its associated footnote and listed individual parameter - Condensor Off-Gas Radiation and S/G Blowdown Radiation Level. Main Steamline Radiation was deleted because it is not a timely monitor for the required functions.	Correction
7.5.2	3	7.5-38-7.5.2	T7.5-3 [Am-66] (Shts. 1 and 2) Revises the list of parameters to reflect the "Status Trees" used in conjunction with the Emergency Response Procedures.	Correction
7.5.2	3	7.5-43-7.5.2	T7.5-4 [Am-66] Deleted "(WR)" from Containment Water Level.	Correction
7.5.2	3	7.5-45-7.5.2	T7.5-4 [Am-66] Deletes pressure relief tank variables as they are not Type C variables at CPSES instead type D variables.	Correction
7.5.2	3	7.5-46-7.5.2	T7.5-4 [Am-66] Adds "Containment Hydrogen Concentration" as Type C variable, as well as "RCS Pressure (WR)".	Addition
7.5.2	3	7.5-50-7.5.2	T7.5-5 [Am-64](sht 3) Changes Safety Injection Tank Accumulator pr[illegible]s from a "Backup" to a "key" variable and from category D3 to D2.	Update
7.5.2	3	7.5-53-7.5.2	T7.5-6 [Am-66] Changes "Containment Radiation Level" to Category 1 to be consistent with Regulatory Guide 1.97, Rev. 2.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
7.5.2	3	7.5-57-7.5.2	T7.5-7 [Am-66](Sht 2&9) Change reflects addition of qualified Post-Accident Neutron Flux Monitoring Instrumentation.	Update
7.5.2	3	7.5-58-7.5.2	T7.5-7 [Am-66](sht 6) Changes Safety Injection Tank Accumulator pressure from category D3 to D2 and now lists it as environmentally and seismically qualified.	Revision
7.5.2	3	7.5-66-7.5.2	T032.110-1 [Am-64](Sht.4 and 6) [Am-66] T7.5-7 [Am-66] (Sht. 10) [Am-64] Changes Containment Atmospheric Temperature range from 0-300oF to 0-340 . Refer to TU Electric letter logged TXX-4646 dated December 16, 1985. Corrected to 360oF in [Am-66].	Update
7.5.2	3	7.5-67-7.5.2	T032.110-1 (Sht. 3), T032.110-4 (Sht.3), [Am-64] T032.110-5 (Sht. 2) [Am-64] Deletes previous exceptions for the category and qualification for the Safety Injection Tank Accumulator pressure instrumentation. Refer to TU Electric letter logged TXX-4646 dated December 16, 1985.	Update
7.5.2	3	7.5-70-7.5.2	T032.110-1, -3, -4, -5 [Am-64](Sheet 1 for each table) Changes reflect the addition of qualified Post-Accident Neutron Flux Monitoring Instrumentation. (Deletes old notation on Source Range and Intermediate Range instruments.)	Update
7.5.2	4	7.5-21-7.5.2-D	7.5-17 and 7.5-18 [Am-66] Clarifies Type A variable nomenclature to be more consistent with R.G. 1.97 guidance.	Clarification
7.5.2	4	7.5-23-7.5.2	7.5-18 [Am-66] Changes discussion on Type A variables from "No Type A variables have been designated Category 2 or 3" to "All Type A variables have been designated Category 1.	Clarification
7.5.2	4	7.5-24-7.5.2	7.5-19 [Am-68] Added the word "System" and deleted the word "Control" from the title "Reactor Coolant System Inventory" to be consistent with the remainder of this chapter.	Clarification
7.5.2	4	7.5-25-7.5.2	7.5-20 [Am-66] Deleted "or" after Reactor Coolant System Boundary.	Editorial
7.5.2	4	7.5-28-7.5.2	7.5-21 [Am-66] Removes parenthesis and added "to" to make statement read smoother.	Editorial
7.5.2	4	7.5-30-7.5.2	7.5-21 [Am-66] Adds "(HVAC)" after "Heating, Ventilation, Air Conditioning..."	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
7.5.2	4	7.5-31-7.5.2	7.5-21 [Am-66] Changes "Electrical Power to Vital Safety Systems" to "Vital Electrical Power Supplies".	Clarification
7.5.2	4	7.5-31-7.5.2	7.5-21 [Am-66] Changes "Radwaste" to "Radioactive Waste System".	Clarification
7.5.2	4	7.5-35-7.5.2-D	T7.5-2 [Am-66] Clarifies Type A variable nomenclature to be more consistent with R.G. 1.97 Guidance.	Clarification
7.5.2	4	7.5-39-7.5.2	T7.5-4 [Am-66] Changes title of first function from "In-Core Fuel Clad" to "Fuel Cladding.	Clarification
7.5.2	4	7.5-41-7.5.2	T7.5-4 [Am-66] Changes "Post Accident Sampling" to "Accident Sampling".	Clarification
7.5.2	4	7.5-42-7.5.2	T7.5-4 [Am-66] Deletes The word "circulating" from "Radiation Level in Circulating Primary Coolant"to better the CPSES parameter for accident monitoring.	Clarification
7.5.2	4	7.5-44-7.5.2	T7.5-4 [Am-64] Added "Reactor Vessel Water Level" and "RVLIS" in parentheses, where previously only "RVLIS" was listed.	Editorial
7.5.2	4	7.5-51-7.5.2	T7.5-5 [Am-66](Sheet 3) Adds the word "Centrifugal" to be more descriptive with regard to the charging pump.	Clarification
7.5.2	4	7.5-52-7.5.2	T7.5-5 [Am-68](Sheet 5) Changes title from "Primary Plant Exhaustion Cooler" to "Primary Plant Exhaust Fan Cooler".	Editorial
7.5.2	4	7.5-63-7.5.2	T032.110-1, 2, 3, 4, 5, and 6 [Am-64] Re-issues full table with new format for change bars and sheets renumbered.	Editorial
7.5.2	4	7.5-71-7.5.2	212-149 [Am-65] Correct typographical errors by the deletion of the repeated phrase "while be prepared in accordance with the existing conditions" and changes "Section 7.4.1.4.3" to Section 7.4.1.3.3".	Editorial
7.5.2	4	7.5-72-7.5.2	7.5-21 [Am-66] Changes "Radwaste" to "Radioactive Waste System".	Clarification
7.5.2	4	7.5-73-7.5.2	T7.5-6 [Am-66] Adds "Function" column to table and relocates variables as appropriate; adds "(and flow)" to "Plant Vent Effluent	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			Radioactivity". Deletes "Processing" from *** footnote.	
7.5.2	4	7.5-74-7.5.2	T7.5-3 [Am-66] (Shts. 1 and 2) Revises list of critical safety functions to match the Emergency Response Procedures. No change in content.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
7.6.2	4	7.6-2-7.6.2	7.6-16 [Am-68] Delete "torque" from the alarm requirement. The alarm requirements for the accumulator isolation valve for indication of valve malpositio when the RCS pressure is above the SI unblocking pressure is not the torque limit switch. The torque limit switch does not monitor valve position.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
7.6.4	2	7.6-3-7.6.4	7.6-22, 23 [Am-57] Adds "wide range RCS temperature from cold legs 3-4" to protection set I and expands "...hot legs" to "...hot legs 1-2"	Correction
7.6.4	3	7.6-5-7.6.4	7.6-23,25 [Am-57] Changes "...existing RCS hot leg wide range..." to "...existing RCS cold and hot leg...".	Correction
7.6.4	4	7.6-7-7.6.4	F7.6-5 [Am-67] Reflects the correct tag number for the transmitter power supply, PQY405.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
7.7.1	3	7.7-1-7.7.1	F7.7-14A [Am-67] Updates the figure to reflect equipment location in the control room.	Update

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SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification

Total Records Processed : 176

Chapter 07

EVALUATIONS SUMMARY BY ALPHA DESIGNATOR

ALPHA	GROUPS 1	2	3	4	TOTAL
		40	45	73	158
A			1	1	2
B				1	1
C			1		1
D			9	3	12
E			2		2
Totals :		40	58	78	176
Factored Totals :		40	49	76	165

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EVALUATIONS SUMMARY BY GROUP
Chapter : 07

SER	GROUPS 1	2	3	4	TOTAL
07.01.2		2	6	11	19
07.02.1		2	9	1	12
07.02.2		1	6		7
07.03.1		7	4	11	22
07.03.2			2	1	3
07.04.1		15	5	16	36
07.04.2		1	1	7	9
07.05.1		2	7	9	18
07.05.2		9	16	20	45
07.06.2				1	1
07.0[illegible].4		1	1	1	3
07.07.1			1		1
TOTAL :		40	58	78	176

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SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
8.0	4	8.0-3-8.0	8-iii [Am-60] Adds new Appendix 8A "Analysis to Justify Cable Splices in Raceways" to Table of Contents.	Editorial
8.0	4	8.0-4-8.0	Index 8-iii [Am-64] Changes page number due to renumbering.	Editorial
8.0	4	8.0-5-8.0	8-iii and 8-v [Am-65] Pages are renumbered because of shifts in the text which resulted from changes to the section.	Editorial
8.0	4	8.0-6-8.0	8-i thru 8-xii [Am-62] Changes in page numbers to reflect renumbering.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
8.1	2	1AB-34-8.1-J	1A(B)-68 [Am-66] CPSES will use IEEE Std. 450-1980 rather than the 1975 version for compliance with Regulatory Guide 1.129. IEEE 450-1980 primarily revised and clarified the methodology used to calculate the battery capacity for an acceptance or performance test. Compliance with IEEE 450-1980 is acceptable provided that the method used to calculate battery capacity is consistent (i.e., use of 1980 equation with the 1980 temperature correction or use of the 1975 equation with the 1975 temperature correction factors). Since the two methods are essentially equivalent, the intent of Regulatory Guide 1.129 is met.	Revision
8.1	2	8.1-4-8.1-J	8.1-7 [Am-66] CPSES will use IEEE Std. 450-1980 rather than the 1975 version for compliance with Reg. Guide 1.129. IEEE 450-1980 primarily revised and clarified the methodology used to calculate the battery capacity for an acceptance or performance test. Compliance with IEEE 450-1980 is acceptable provided that the method used to calculate battery capacity is consistent (i.e., use of 1980 equation with the 1980 temperature correction or use of the 1975 equation with the 1975 temperature correction factors). Since the two methods are essentially equivalent, the intent of Regulatory Guide 1.129 is met.	Revision
8.1	3	8.1-8-8.1-I	8.1-12 [Am-68] Clarifies compliance to IEEE Std. 494-1974 at CPSES. The description is moved from Section 8.3 and placed here as a more appropriate location. A description of vendor supplied documents and drawings is added.	Correction
8.1	4	8.1-3-8.1	8.1-4 thru 8.1-6 [Am-66] Corrects following discrepancies to be consistent with Appendix 1A(B) of FSAR: (1) Reg. Guide 1.29 should be Revision 2, February 1976, (2) Reg. Guide 1.40 is not applicable to CPSES and is deleted, and (3) Reg. Guide 1.81 should be Revision 1, January 1975. The remaining items in this list have been appropriately renumbered to reflect the deletion.	Correction
8.1	4	8.1-9-8.1	T8.1-1 [Am-66] Table reissued with text shirted.	Editorial
8.1	4	8.1-13-8.1	8.1-10 [Am-60] Corrects "Trail" to "Trial".	Editorial
8.1	4	8.3-43-8.1-I	8.3-62 [Am-68] The discussion on document identification is now in Section 8.1.5.2, which is referenced, and redundant information is removed.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
8.1	4	8.3-68-8.1-I	8.3-35 [Am-68] References the discussion now in Section 8.1.5.2 (item 5) for document identification.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
8.2.1	2	8.1-14-8.2.1-A	8.1-2 [Am-66] Sections 8.1, 8.2 and 8.3 have been revised to reflect the addition of two startup transformers (1ST & 2ST) to feed the non-safety related 6900-V buses. The two new startup transformers are powered from the 345 kV Switchyard. The existing startup transformers (XST1 and XST2) are now dedicated sources of preferred and alternate power directly feeding the safety related 6900-V buses. All four transformers have similar electrical ratings except that 1ST and 2ST will have an impedance of approximately 5% instead of approximately 8.5%. The spare transformer can be used to replace any of the four startup transformers. XST1 and XST2 no longer serve as the startup power supply for the non-safety related 6900-V buses. 1ST and 2ST now serve as the startup power supplies for the non-safety related 6900-V buses for Unit 1 and Unit 2, respectively. The safety related 6900-V buses can no longer be connected to an offsite power source by backfeeding them through the main step-up transformer and unit auxiliary transformer; however, the non-safety related 6900-V buses retain this feature.	Revision
8.2.1	2	8.2-2-8.2.1-A	Sections 8.1, 8.2 and 8.3 [Am-66] Sections 8.1, 8.2 and 8.3 have been revised to reflect the addition of two startup transformers (1ST & 2ST) to feed the non-safety related 6900-V buses. The two new startup transformers are powered from the 345 kV Switchyard. The existing startup transformers (XST1 and XST2) are now dedicated sources of preferred and alternate power directly feeding the safety related 6900-V buses. All four transformers have similar electrical ratings except that 1ST and 2ST will have an impedance of approximately 5% instead of approximately 8.5%. The spare transformer can be used to replace any of the four startup transformers. XST1 and XST2 no longer serve as the startup power supply for the non-safety related 6900-V buses. 1ST and 2ST now serve as the startup power supplies for the non-safety related 6900-V buses for Unit 1 and Unit 2, respectively. The safety related 6900-V buses can no longer be connected to an offsite power source by backfeeding them through the main step-up transformer and unit auxiliary transformer; however, the non-safety related 6900-V buses retain this feature.	Revision
8.2.1	2	8.2-3-8.2.1-A	8.2-1 [Am-66] The safety related 6900-V buses can no longer be connected to an offsite power source by backfeeding them through the main step-up transformer and unit auxiliary transformer; however, the non-safety related 6900-V buses retain this feature.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
8.2.1	2	8.2-10-8.2.1-A	8.2-6 [Am-66] Revised to reflect the addition of two startup transformers (1ST & 2ST) to feed the non-safety related 6900-V buses. The two new startup transformers are powered from the 345 kV Switchyard. The existing startup transformers (XST1 & XST2) are now dedicated sources of preferred and alternate power directly feeding the safety related 6900-V buses. The safety related 6900-V buses can no longer be connected to an offsite power source by backfeeding them through the main step-up transformer and unit auxiliary transformer; however, the non- safety related 6900-V buses retain this feature.	Revision
8.2.1	2	8.2-11-8.2.1-A	8.2-7 [Am-66] Revised to reflect the addition of two startup transformers (1ST & 2ST) to feed the non-safety related 6900-V buses. The two new startup transformers are powered from the 345 kV Switchyard. The existing startup transformers (XST1 and XST2) are now dedicated sources of preferred and alternate power directly feeding the safety related 6900-V buses. The safety related 6900-V buses can no longer be connected to an offsite power source by backfeeding them through the main step-up transformer and unit auxiliary transformer; however, the non- safety related 6900-V buses retain this feature. Adds description of control for motor-operated air switch used for the spare transformer. Control of this air switch from the control room is not required since the transformer cannot be put into service strictly from the control room. Short sections of ventilated solid top cover, cable tray are used in the modification as well as the previously existing metal-enclosed, ventilated, solid top cover, cable bus ducts.	Revision
8.2.1	2	8.2-13-8.2.1-A	8.2-8 [Am-66] Revised to reflect the addition of two startup transformers (1ST & 2ST) to feed the non-safety related 6900-V buses. The two new startup transformers are powered from the 345 kV Switchyard. The existing startup transformers (XST1 & XST2 are now dedicated sources of preferred and alternate power directly feeding the safety related 6900-V buses.	Revision
8.2.1	2	8.2-15-8.2.1-A	8.2-10 [Am-66] The safety related 6900-V buses can no longer be connected to an offsite power source by backfeeding them through the main step-up transformer and unit auxiliary transformer; however, the non-safety related 6900-V buses retain this feature.	Revision
8.2.1	2	8.2-26-8.2.1-A	F8.2-11 [Am-67] Figure is redrawn to reflect changes in the Offsite Power Distribution System (new startup transformers, Refer to Amendment 66). Changes	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			portions of the cable bus duct to cable tray to provide proper ventilation.	
8.2.1	2	8.2-31-8.2.1-A	F8.1-1,-2,-3,-4,-5,-6 and -8 [Am-66] Figures are redrawn to reflect changes in the Offsite Power Distribution System (new startup transformers).	Revision
8.2.1	2	8.3-2-8.2.1-A	8.3-1 thru 8.3-6, 8.3-9, 8.3-10, 8.3-12, and 8.3-14 [Am-66] Sections 8.2 and 8.3 have been revised to reflect the addition of two startup transformers (1ST and 2ST) to feed the non-safety related 6900-V buses. The two new startup transformers are powered from the 345 kV Switchyard. The existing startup transformers (XST1 and XST2) are now dedicated sources of preferred and alternate power directly feeding the safety related 6900-V buses. All four transformers have similar electrical ratings except that 1ST and 2ST will have an impedance of approximately 5% instead of approximately 8.5%. The spare transformer can be used to replace any of the four startup transformers. XST1 and XST2 no longer serve as the startup power supply for the non-safety related 6900-V buses. 1ST and 2ST now serve as the startup power supplies for the non-safety related 6900-V buses for Unit 1 and Unit 2, respectively. The safety related 6900-V buses can no longer be connected to an offsite power source by backfeeding them through the main step-up transformer and unit auxiliary transformer; however, the non-safety related 6900-V buses retain this feature. 2ST will be installed prior to startup of Unit 2.	Revision
8.2.1	2	8.3-5-8.2.1-A	8.3-3 and 8.3-4 [Am-66] Deletes discussion on overloading startup transformer since this no longer occurs with the startup transformer modificaton. Each startup transformer has the capacity to carry the required Class 1E loads of both Units during all modes of plant operation, which includes DBA's. The transfer of loads will always be sequenced and will not occur as a step function.	Revision
8.2.1	2	8.3-6-8.2.1-A	8.3-6 [Am-66] This change revises the description of the power sources for common bus XA1 due to the new startup transformer modification. There is no interconnection now between safety related and non-safety related 6900-V buses.	Revision
8.2.1	2	8.3-24-8.2.1-A	8.3-40 [Am-68] Consistent with Amendment 66, corrects the number of offsite power sources available to the Class 1E AC buses. The Class 1E buses can no longer be backfed through the main step-up transformer and auxiliary transformer.	Correction
8.2.1	2	8.3-28-8.2.1-A	8.3-42 [Am-66] Deletes "A third supply is available upon removal of the isolated bus links in less than 8 hours..." as the safety related	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			6900-V buses can no longer be connected to an offsite power source by backfeeding them through the main step-up transformer and unit auxiliary transformer; however, the non-safety related 6900-V buses retain this feature.	
8.2.1	2	8.3-91-8.2.1-A	F8.3-1 [Am-67] Figure is redrawn for changes to Offsite Power Distribution System (Refer to Amendment 66). Added new transformers 1ST and 2ST and the associated cabling to feed normal 6.9kV buses. Assigned existing transformers XST1 and XST2 to feed 6.9kV safeguard buses only and made associated cable bus changes.	Revision
8.2.1	2	8.3-92-8.2.1-A	F8.3-2 [Am-67](Shts. 1, 2, and 3) Sheets 1-3 Figure is split and redrawn for clarity and incorporates changes to the Offsite Power Distribution System. Sheet 1 Transformers XST1 and XST2 power supply, metering, and relay scheme is revised to reflect the new offsite power distribution scheme. Sheet 2 Adds startup transformers 1ST and 2ST which supply 6.9kV normal buses (with power supply, metering and relaying scheme).	Revision
8.2.1	3	1.2-1-8.2.1-B	1.2-15 [Am-66] Reflects the addition of Comanche Switch transmission line (provided in Amendment 60).	Update
8.2.1	3	8.1-1-8.2.1-B	Sec. 8.1 and 8.2 [Am-60] The Comanche Peak 345-kV switchyard was designed so that new transmission lines could be added during the service life of the switchyard. The Comanche Peak to Comanche Switch Transmission Line was a planned addition originally scheduled for installation in 1983. Prior to this change, this transmission line was specifically referenced on FSAR Figure 8.1-2 and in the Final Environmental Statement (FES-OL Section 4.2.5). The installation of this line is not related to the construction of CPSES but is instead part of the planned development of the Texas Utilities Electric Company (TUEC) transmission system to maintain high quality service to our customers in the Stephenville- Brownwood area. This transmission line is jointly owned by TUEC and Brazos Electric Power Cooperative, Inc. The conductor for the second circuit on the existing Comanche Peak to Benbrook 345-kV line is scheduled to be installed prior to operation of CPSES Unit 2. This change effects both the text and figures for Sections 8.1 and 8.2, modifying them to reflect the addition of the Comanche Peak to Comanche Switch Transmission Line, to revise the in-service dates for the CPSES units, to show the existing plant facility support power transformer and to revise the description and	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			designation of our company to reflect the 1984 reorganization.	
8.2.1	3	8.1-15-8.2.1-B	8.1-1 [Am-60] The Comanche Peak 345-kV switchyard was designed so that new transmission lines could be added during the service life of the switchyard. The Comanche Peak to Comanche Switch Transmission Line was a planned addition originally scheduled for installation in 1983. Prior to this change, this transmission line was specifically referenced on FSAR Figure 8.1-2 and in the Final Environmental Statement (FES-OL Section 4.2.5). The installation of this line is not related to the construction of CPSES but is instead part of the planned development of the Texas Utilities Electric Company (TUEC) transmission system to maintain high quality service to our customers in the Stephenville-Brownwood area. This transmission line is jointly owned by TUEC and Brazos Electric Power Cooperative, Inc. This change effects both the text and figures for Section 8.1 and 8.2, modifying them to reflect the addition of the Comanche Peak to Comanche Switch Transmission Line, to revise the in-service dates for the CPSES units, to show the existing plant facility support power transformer and to revise the description and designation of our company to reflect the 1984 reorganization.	Update
8.2.1	3	8.2-4-8.2.1-B	8.2-2 [Am-60] This change reflects the installation of the new Comanche Peak to Comanche Switch Transmission Line, reflects the company reorganization in 1984, changes references to individual conductor pairs to "circuits" for consistency, and reflects a corrected distance for the Venus line provided by the company's operating division.	Editorial
8.2.1	3	8.2-8-8.2.1	8.2-5 [Am-60] Deletes discussion on future construction of Parker-Venus tie line as construction is complete.	Update
8.2.1	3	8.2-9-8.2.1-B	8.2-5 [Am-60] Changes reflect the installation of the new Comanche Switch line (i.e., new tower installation and separations), adds the existing plant facility support power (non-1E stepdown) transformer which is located on company-owned property outside the protected area, corrects terminology for the first turn point for the Benbrook line and for the future second circuit Venus line and corrects distance between phases based on correct terminology.	Update
8.2.1	3	8.2-20-8.2.1-B	F8.2-1 [Am-60] F8.2-2 [Am-60] Adds new Comanche Switch transmission circuit installation and updates figure to expected configuration for placing Unit 1 in	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			service.	
8.2.1	3	8.2-21-8.2.1-B	F8.2-3 [Am-60] Adds new Comanche Switch transmission circuit installation and updates figure to expected configuration for placing Unit 2 in service.	Update
8.2.1	3	8.2-22-8.2.1-B	F8.2-4 [Am-60] Adds new Comanche Switch installation, adds existing plant facility support power transformer, and adds circuit breaker disconnects which previously weren't shown.	Update
8.2.1	3	8.2-23-8.2.1-B	F8.2-5 [Am-60] Adds new Comanche Switch transmission circuit installation and adds drawing details (based on current construction drawing).	Update
8.2.1	3	8.2-24-8.2.1-B	F8.2-6 [Am-60] Adds new Comanche Switch transmission circuit installation, adds minor drawing details and deletes unnecessary notes (based on current construction drawing).	Update
8.2.1	3	8.2-25-8.2.1-B	F8.2-8 [Am-60] Adds new Comanche Switch transmission circuit and adds minor drawing details (based on current construction drawing).	Update
8.2.1	3	8.2-27-8.2.1-B	F8.2-12 [Am-60] Adds new Comanche Switch transmission circuit and existing Plant Facility Support Power Transformer.	Update
8.2.1	3	8.3-4-8.2.1-B	8.3-3 [Am-66] There are five transmission lines feeding the 345 kV Switchyard.	Correction
8.2.1	3	8.3-12-8.2.1	8.3-12 [Am-66] The plant Technical Specifications describe the Limiting Conditions for Operation and time constraints for the offsite power supply. Reg. Guide 1.93 is not intended to be site specific or to take the place of the Technical Specifications.	Revision
8.2.1	3	8.3-97-8.2.1-A	F8.3-5 [Am-67] (Shts. 1 & 2) Figure is split and redrawn for clarity. Notes and symbols are appropriately placed. Adds reference to transformers 1ST and 2ST. Adds Note 15 to clarify nonsegrated cable bus rating.	Addition
8.2.1	4	8.1-2-8.2.1	Section 8.1 [Am-62] Pages renumbered, new electronic format incorporated, and reflects new company name and division titles.	Editorial
8.2.1	4	8.1-11-8.2.1	F8.1-1 [Am-60] Provides new TE-9500 transmission map updated through December 31, 1985 to reflect changes between December 31, 1980 and December	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			31, 1985.	
8.2.1	4	8.1-12-8.2.1	F8.1-2 [Am-60] Provides updated drawing of company power grid through October 30, 1986 to reflects changes between August 2, 1978 and October 30, 1986, in both the existing and planned company power grid.	Update
8.2.1	4	8.2-1-8.2.1	8.2-1 [Am-60] Changes all references of "Texas Utilities (TU)" to "Texas Utilities Electric Company (TUEC)" to reflect company reorganization in 1984.	Update
8.2.1	4	8.2-5-8.2.1-B	8.2-3 [Am-60] Changes the paragraph on switchyard circuit breaker ratings to reflect the rating for the new breakers used for the new Comanche Switch line and relocates the hyphen for "close-open". This correction reflects the new installation, which has a higher rating; the remainder are typographical corrections.	Correction
8.2.1	4	8.2-6-8.2.1	8.2-4 [Am-60] Specifies the type of H-frame and voltage and contains some minor grammatical changes (e.g. "approximately" to "approximate").	Correction
8.2.1	4	8.2-7-8.2.1	8.2-5, 8.2-6 and 8.2-7 [Am-60] Corrects the terminology for the existing and future 90 degree angle towers for the Benbrook-DeCordova lines and corrects the height for the Benbrook Tower (height for the second turn point towers was originally given), and adds discussion on spare startup transformer available at the site.	Update
8.2.1	4	8.2-14-8.2.1	8.2-9 [Am-60] This update/correction reflects the new Comanche Switch installation, the proper units for the 345-kV transmission line conductor size, and the actual conductor size used for installation of the Benbrook line and portions of Venus line as provided by company's operating division. Note: 1) conductor size was and continues to be selected based on projected system configuration and power flows, 2) the Benbrook line was limited by tower size between DeCordova and Benbrook to 2-975 ACSR, and 3) the 2-795 MCM ACSR portion of the Venus line was an existing line which was tied to CPSES with the 2-1590 MCM ACSR portion.	Update
8.2.1	4	8.2-16-8.2.1	8.2-11 [Am-60] Corrects typographical error of "multiunit" to "multi- unit".	Editorial
8.2.1	4	8.2-17-8.2.1	8.2-12 [Am-60] Editorial: Minor grammatical change to delete two unnecessary "the"s and changes "ESE" to "ESF".	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
8.2.1	4	8.2-32-8.2.1	F8.2-5 and F8.2-8 [Am-66] Figures split into 2 sheets for clarity and to correspond to computer aided design (CAD) drawings used at CPSES.	Editorial
8.2.1	4	8.2-33-8.2.1	8.2-4 and 8.2-5 [Am-64] Adds description of the existing non-Class 1E Plant Support Power Transformer (stepdown), which is located on company owned property outside the protected area.	Addition
8.2.1	4	8.2-34-8.2.1	F8.2-12 [Am-64] Corrects name of Plant Support Power Transformer (deletes "Facility").	Editorial
8.2.1	4	8.3-3-8.2.1	8.3-2 [Am-66] Item 4 from page 8.3-5 was not previously identified in the introductory section on page 8.3-2.	Correction
8.2.1	4	8.3-9-8.2.1	8.3-9 [Am-68] Clarifies that 40 degrees reflects the setting of the synchronism check relay and not the actual value where transfer will occur.	Clarification
8.2.1	4	8.3-10-8.2.1	8.3-9 [Am-68] Adds time of transfer and disable function to description.	Addition
8.2.1	4	8.3-11-8.2.1	8.3-10 [Am-68] Clarifies that the 30 second delay is a normal part of the circuitry and gives basis.	Clarification
8.2.1	4	8.3-25-8.2.1	8.3-41 [Am-66] Changes "internal" to "interval".	Editorial
8.2.1	4	8.3-93-8.2.1	F8.3-2 [Am-67] (Sht. 3) Figure is split and redrawn for clarity. Symbols and notes are appropriately placed.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
8.2.2	2	8.2-30-8.2.2-A	Q423.19 p.423-43 & 423-44 [Am-68] The test requirements are revised to reflect the new startup transformer installation (Amendment 66). XST1 and XST2 supply only Class 1E buses. Only the non-Class 1E buses can be backfed via the main step-up transformer and unit auxiliary transformers. (Initial start-up program also discussed in SER Chapter 14.)	Revision
8.2.2	3	8.2-28-8.2.2-A	Q423.34 p.423-63 & 423-64 [Am-68] The response is revised to reflect the new startup transformer installation (Amendment 66). There is no longer a condition which overloads the Class 1E startup transformers. (Initial start-up program also discussed in SER Chapter 14.)	Revision
8.2.2	4	8.2-29-8.2.2	Q423.12 p.423-?? [Am-68] Deletes duplicate entry.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
8.2.3	3	8.2-18-8.2.3-8	8.2-13 thru 8.2-17 [Am-60] This update reflects the new Comanche Switch line installation, reflects company reorganization in 1984, reflects changes in ERCOT load since 1979, reflects change in the in-service dates for CPSES, and makes reference to conductors more consistent (i.e. circuit); the remainder are typographical corrections. (Also see 8.2-19-8.2.4)	Update
8.2.3	4	8.2-35-8.2.3	8.2-17 [Am-64] Updates company name and sentence reorganized for clarification.	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
8.2.4	2	8.2-19-8.2.4	8.2-14 and -15 [Am-66] Revised to reflect the voltages calculated for the new system arrangement and to place the listed voltages in a logical order.	Revision
8.2.4	2	8.3-16-8.2.4-A	8.3-14 [Am-66] Deletes discussion on 7000 kW electric boiler since the startup transformers are no longer overloaded.	Revision
8.2.4	2	8.3-125-8.2.4-A	Q040.49 page 040-72 thru -72b [Am-66] Revises response to reflect the new startup transformer installation. The design modification has improved the voltages available at the safety related buses. Based on the preliminary (non-validated) calculations, the minimum and maximum voltages at the safety related buses will ensure adequate voltages at all safety related equipment. When the voltage profile calculations are finalized, a revised response will be provided. There are now no specific dynamic design features in the plant electrical system to assure that acceptable voltage levels are maintained at the safety related buses.	Revision
8.2.4	2	8.3-127-8.2.4-A	Q040.109 page 040-145 [Am-68] Revises response to Question 040.109 on 480-V Safeguard bus tolerance values due to the installation of the new startup transformers (Amendment 66).	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
8.3.1	2	8.3-8-8.3.1	8.3-8 [Am-66] This change corrects the Class and Interrupting Current listed for 120-VAC panels to reflect the specification.	Correction
8.3.1	2	8.3-98-8.3.1-A	F8.3-6 [Am-67] (Shts. 1 & 2) Sheets 1 & 2 -Figure is split and redrawn for clarity. Notes and symbols are appropriately placed. Modifies supply to 6.9kV buses to reflect the new offsite power distribution scheme. Adds Note 13 to clarify cable bus rating. Sheet 1-deletes HVAC water chiller from bus 1EA1, position 2.	Revision
8.3.1	2	8.3-123-8.3.1	Q040.9 page 040-18 [Am-68] Adds condition that will render the diesel generator inoperable for automatic emergency start -- the diesel generator breaker CR-HSP selector switch in the HSP position:	Addition
8.3.1	3	8.3-21-8.3.1	8.3-21 [Am-65] Adds the engine/turbo high vibration trip and engine bearing high temperature trip to the protective systems list for the diesel. This reflects the CPSES design.	Correction
8.3.1	3	8.3-22-8.3.1	8.3-25, -26 [Am-65] Corrects the discussion of IEEE-387-1977 refueling testing of the diesel generator to be consistent with Regulatory Guide 1.108, Revision 1 (August 1977). The discussion is now also consistent with the CPSES proposed Draft Technical Specifications submitted October 30, 1987.	Correction
8.3.1	3	8.3-75-8.3.1	T8.3-1A [Am-55] (Sht. 5/8) T8.3-1B [Am-55] (Sht. 5/9), T8.3-2 [Am-55] (Sht. 7/12) Change kw from 20 to 10 for control room emergency pressurization heaters.	Correction
8.3.1	3	8.3-76-8.3.1	T8.3-1A [Am-66], T8.3-1B [Am-66], and T8.3-2 [Am-66] Updates table to reflect the current design loads. Editorial corrections made for clarity.	Update
8.3.1	3	8.3-77-8.3.1	T8.3-1A [Am-68](Sht. 3) Corrects number of Technical Support Center isolation transformers to two.	Correction
8.3.1	3	8.3-79-8.3.1	T8.3-2 [Am-66] (Shts. 8, 9 and 11) Revises table to reflect installation of three new instrument air units (one of these units is fed from a non-safety- related bus and so does not show on table). Adds two new notes clarifying information related to the instrument air system.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
8.3.1	3	8.3-81-8.3.1	T8.3-2 [Am-68](Sht. 3) Adds kW for Containment Air Radiation Monitoring System sample pump to table. The value was not previously specified.	Update
8.3.1	3	8.3-83-8.3.1-A	T8.3-3 [Am-66] Changes the table to reflect the installation of new startup transformers for the non-Class 1E loads (offsite power supply design modification). Adds equipment designators for clarity. Editorial corrections made to correct typographical errors and improve clarity.	Correction
8.3.1	3	8.3-88-8.3.1	T8.3-8 and T8.3-9 [Am-66] Updates the 6900-V and 480-V load tables to reflect the current design.	Update
8.3.1	3	8.3-94-8.3.1	F8.3-3 [Am-67] Corrects the logic diagram to show that loading sequence of safeguards buses also operates when power transfers from the preferred to the alternate source. Also editorial change corrects "open" to "trip" to properly designate breaker position. Adds Note 4 for reset after sequencer cycle is over.	Correction
8.3.1	3	8.3-102-8.3.1	F8.3-7 [Am-67] (Sht. 2) Figure is split and redrawn for clarity. Notes and symbols are appropriately placed. Spares cubicle 4C on switchgear XB1 per design change. Changes CB trip setting at switchgear XB1 cubicle 4B and 5B to 600 Amp and 800 Amp, respectively, and load to cubicle 5B per design change.	Update
8.3.1	3	8.3-103-8.3.1	F8.3-8 [Am-67] (Sht. 1) Figure is split and redrawn for clarity. Notes and symbols are appropriately placed. Adds CT circuit at switchgear 1EB1, cubicle 6B and at switchgear 1EB3, cubicle 11B per design change. Changes PT primary fuse from 3A to 6A on switchgears 1EB1 and 1EB3 per design change.	Update
8.3.1	3	8.3-104-8.3.1	F8.3-8 [Am-67] (Sht. 2) Figure is split and redrawn for clarity. Notes and symbols are appropriately placed. Adds CT circuits at switchgear 1EB2, cubicle 5B, and at switchgear 1EB4, cubicle 11B per design change. Relays 62-1X and 62X added on buses 1EB2 and 1EB4. Changes relays 1TE27H to 1TE27N per design calculation. Changes nomenclature of relay 62 to 62-1 for compartment 3B, switchgear 1EB2 and compartments 9B and 8B, switchgear 1EB4. Adds type and ratings of relays 62-1, 62-1X, and 62-X under symbols.	Update
8.3.1	3	8.3-105-8.3.1	F8.3-9 [Am-67] (Sheets 1-4) Sheets 1-4 Figure is split and redrawn for clarity. Notes and symbols are appropriately placed.	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			Sheet 1 Adds "***" to cubicle 8M at MCC 1EB1-1 to indicate trip on SIS per design changes. Sheet 2 Adds "***" to cubicle 9M at MCC 1EB3-1 to indicate trip on SIS per design change. Sheet 3 Adds "***" to cubicle 10M at MCC 1EB2-1 to indicate trip on SIS per design change. Sheet 4 Adds "***" to cubicle 11M at MCC 1EB4-1 to indicate trip on SIS per design change.	
8.3.1	3	8.3-106-8.3.1	F8.3-10 [Am-67] (Sheets 1 & 2) Sheets 1-2 The figure is split and redrawn for clarity. Sheet 1 Adds "***" at MCC 1EB3-2, cubicle 7C to indicate trip on SIS per design change. Notes and symbols are appropriately placed. Sheet 2 Adds load to cubicle 8RA on MCC 1EB4-2 and adds Note 10 per design change. Notes and symbols are appropriately placed. Adds "***" to cubicle 8J at MCC 1EB4-4 to indicate trip on SIS per design change. Adds control switch on MCC 1EB4-2, cubicle 7C per design change.	Update
8.3.1	3	8.3-107-8.3.1	F8.3-11 [Am-67] (Shts. 1, 2, and 3) Sheets 1-3 Figure is split and redrawn for clarity. Notes and symbols are appropriately placed. Sheet 1 Revises transfer switch terminal on XEB1-2 per design change. Sheet 2 Adds "***" to cubicle 2M at MCC XEB1-1 to indicate trip on SIS per design change. Deletes control switch at cubicles 4E and 2J on MCC XEB1-1 and cubicles 3E and 5J on MCC XEB2-1 per design change. Sheet 3 Adds "***" to cubicle 2F at MCC XEB3-2 and MCC XEB4-2 to indicate trip on SIS per design changes.	Update
8.3.1	3	8.3-108-8.3.1	F8.3-12 [Am-67] (Sheets 1 & 2) Sheets 1-2 Figure is split and redrawn for clarity. Notes and symbols are appropriately placed. Sheet 1 Adds "***" to cubicle 3M at MCC 1EB3-4 to indicate trip on SIS per design change. Sheet 2 Adds "***" to cubicle 3M at MCC 1EB4-3 to indicate trip on SIS per design change.	Update
8.3.1	3	8.3-114-8.3.1	F8.3-15A [Am-67] (Shts. 1 & 2) Sheet 1 Figure is split and redrawn for clarity. Notes and symbols are appropriately placed. At panel XEC1, ckt 12 changes cable number to NK006671M per design change. Deletes reference to fuse box for ckt 14, panel XEC1-2 per design change, and adds to ckts 2, 4, and 14 of panel XEC2-2. Sheet 2 Figure is split and redrawn for clarity. Notes and symbols are appropriately placed. Adds neutron flux monitoring	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			loads to panel 1EC3-2 ckts 7, 9 and 10. Also changes CB size for ckt #7 for both of above panels per design change.	
8.3.1	3	8.3-117-8.3.1	F8.3-15C [Am-67] Figure is split and redrawn for clarity. Notes and symbols are appropriately placed. Replaces 40AT CB with a 60AT CB in switchboard 1D3. Adds panel 1D3-1. Adds load TBX-ESELAM-01 to circuit #5 of panel 1C5 per design change. Deletes "New Cable Number" from circuits #1 and #2 in 1D3-1.	Update
8.3.1	3	8.3-118-8.3.1	Q040.118 (p. 040-159) [Am-65] Change reflects correct design of 6900/480 Volt transformer grounding system and voltage relay device 59G. Note: Transformer is grounded on low (480V) side, therefore change is consistent with SER.	Correction
8.3.1	3	8.3-126-8.3.1	Q040.118 (p 040-159) [Am-65] Clarifies that each of the 6900/480V transformers have a high resistance grounding system. Each transformer has a voltage relay device 59A and is connected across the secondary of a potential transformer (PT) and the primary of the PT is connected across the grounding resistance.	Addition
8.3.1	4	8.3-7-8.3.1	8.3-8 [Am-66] Clarifies actual panel voltages associated with the 120-VAC distribution panels' specification.	Clarification
8.3.1	4	8.3-13-8.3.1	8.3-12 [Am-65] The diesel generator is designed to attain rated voltage and frequency and be "ready to load" within 10 seconds after receiving a start signal. The point from which the time interval is measured was not previously given.	Clarification
8.3.1	4	8.3-17-8.3.1	8.3-15 [Am-66] Corrects the description for ammeters used in the Control Room and on the hot shutdown panel. The Control Room ammeters are not transducer-driven. The hot shutdown panel has one ammeter for each Standby Power Source.	Correction
8.3.1	4	8.3-18-8.3.1	8.3-16 [Am-66] This change clarifies the locations of selector switches and diesel generator breaker control switches.	Clarification
8.3.1	4	8.3-19-8.3.1	8.3-16 [Am-68] Clarifies that the control switches are for Class 1E 480-V switchgear incoming supply and bus tie circuit breakers.	Clarification
8.3.1	4	8.3-20-8.3.1	8.3-16 [Am-66] Clarifies the locations of control switches for 6900V and 480V switchgear circuit breakers. These described locations are consistent	Clarification

S/R	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			with the plant one-line diagrams.	
8.3.1	4	8.3-38-8.3.1	8.3-56 [Am-66] Deletes statement concerning environmental effects. The environmental parameters for Class 1E equipment are defined in FSAR 3.11 and reviewed in SER Section 3.11.	Correction
8.3.1	4	8.3-78-8.3.1	T8.3-1B [Am-68](Sht. 7) Adds total kW back to table.	Correction
8.3.1	4	8.3-80-8.3.1	T8.3-2 [Am-66] Adds "Loss of Offsite Power" in all references to "blackout" to reflect the current NRC terminology.	Clarification
8.3.1	4	8.3-82-8.3.1	T8.3-2 [Am-68](Shts. 10 and 11) Adds value for Containment Air Radiation Monitoring System sample pump to total kW values for table. Related to 8.3-63-8.3.1 which is actual change which impacted totals.	Update
8.3.1	4	8.3-100-8.3.1	F8.3-6 [Am-67] (Sht. 3) Figure is split and redrawn for clarity.	Editorial
8.3.1	4	8.3-101-8.3.1	F8.3-7 [Am-67] (Sht. 1) Figure is split and redrawn for clarity. Notes and symbols are appropriately placed. Potential transformer primary fuses changed from 3A to 6A per design change.	Update
8.3.1	4	8.3-113-8.3.1	F8.3-15 [Am-67] (Shts 1 & 2) Figure is split and redrawn for clarity. Notes and symbols are appropriately placed.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
8.3.2	2	8.3-86-8.3.2	T8.3-7 [Am-66] (Shts. 1 and 2) This change corrects the FEMA table for proper effects on system given single failure analysis for failure of a battery charger, 600-V cable from battery charger to switchboard or feeder breaker connecting battery charger to switchboard. (Table was converted to new FSAR format and issued in total).	Correction
8.3.2	3	8.3-65-8.3.2	8.3-81 [Am-60] Changes "electrically interlocked" to "mechanically interlocked" for the battery charger circuit breakers. Correction in that figure in Section 8.3 had correctly shown these breakers as mechanically interlocked, while the text had incorrectly said electrically interlocked. (Note: SER description is incorrect).	Correction
8.3.2	3	8.3-84-8.3.2	T8.3-4 thru 8.3-4C [Am-66] Tables 8.3-4 and -4A are being updated and information split out to new Tables 8.3-4B and -4C to: (1) reflect the latest load data for the current CPSES design and (2) reflect the differences in loading between Trains A and B.	Update
8.3.2	3	8.3-85-8.3.2	T8.3-4, T8.3-4A, T8.3-4B and T8.3-4C [Am-68] Updates tables for 125-VDC Class 1E battery load requirements based on validated design calculations by SWEC.	Update
8.3.2	3	8.3-87-8.3.2	T8.3-7 [Am-68] (Sht. 2) Deletes "and supplied by Train B battery" since the redundant loads will not necessarily be supplied off the battery but could be on the charger or alternate power supplies.	Correction
8.3.2	3	8.3-111-8.3.2	F8.3-14 [Am-67] (Shts. 1 & 2) Sheet 1 Figure is split and redrawn for clarity. Notes and symbols are appropriately placed. Changes breaker size for circuit #17218 for 1ED1-1 per design change. Battery charger details and transducer symbol are corrected per design change. Sheet 2 Figure is split and redrawn for clarity. Notes and symbols are appropriately placed. Battery charger detail and transducer symbol are corrected per design change. Adds cable reduction splice for cables EG102598M and EG102598N. Adds voltmeter and ammeter ranges. Corrects 27 AC connection for battery chargers BC1-ED2-1 and BC1-ED2-2 to match vendor drawings.	Update
8.3.2	3	8.3-115-8.3.2	F8.3-15B [Am-67] (Sht. 1) Figure is split and redrawn for clarity. Notes and symbols are appropriately placed. Adds transducer symbol. Battery tag number revised per design change and circuit breaker for ckt #2 panel	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			1FD3-1 revised.	
8.3.2	4	8.3-66-8.3.2	8.3-82 [Am-66] Adds reference to new Tables 8.3-4B and 8.3-4C.	Addition
8.3.2	4	8.3-67-8.3.2	8.3-83 [Am-68] Consistent with Amendment 66, adds reference to Tables 8.3-4B and 8.3-4C in text.	Correction
8.3.2	4	8.3-109-8.3.2	F8.3-13 [Am-67] (Shts. 1 & 2) Figure is split and redrawn for clarity. Notes and symbols are appropriately placed.	Editorial
8.3.2	4	8.3-112-8.3.2	F8.3-14A [Am-67] (Shts. 1 and 2) Figure is split and redrawn for clarity. Notes and symbols are appropriately placed.	Editorial
8.3.2	4	8.3-116-8.3.2	F8.3-15B [Am-67] (Sht. 2) Figure is split and redrawn for clarity. Notes and symbols are appropriately placed. Adds shunt symbol.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
8.4.1	2	8.3-27-8.4.1	8.3-42 thru 8.3-49 [Am-68] Updates the containment electrical penetration protection description to the latest design review calculation.	Revision
8.4.1	3	8.3-29-8.4.1-F	8.3-43 thru 8.3-49 [Am-66] Deletes references to Figures 8.3-18 through 8.3-45 which are being deleted.	Correction
8.4.1	3	8.3-30-8.4.1	8.3-48 [Am-56] Provides descriptions of emergency evacuation system warning lights.	Update
8.4.1	3	8.3-33-8.4.1-F	8.3-49 [Am-66] Revises the discussion on time current curves. Figures 8.3-18 through 8.3-45 are being deleted. The adequacy of penetration protection devices to protect the penetrations is established by detailed calculations. These calculations compare the time current characteristics of protected devices against penetration capability curves. These calculations are available at the site. The time current characteristics curves represent highly detailed design information which is not required to be included in the FSAR.	Revision
8.4.1	3	8.3-45-8.4.1-F	F8.3-18 thru 8.3-45 [Am-66] Figures 8.3-18 through 8.3-45 are being deleted. The adequacy of penetration protection devices to protect the penetrations is established by detailed calculations. These calculations compare the time current characteristics of protected devices against penetration compatibility curves. These calculations are available at the site. The time current characteristics curves represent highly detailed design information which is not required to be in the FSAR.	Revision
8.4.1	3	8.3-124-8.4.1	F8.3-16 [Am-66] Revises figure to reflect changes made during the replacement of the electrical penetration modules and the as-built configuration of the plant.	Revision
8.4.1	4	8.3-23-8.4.1	8.3-38 [Am-66] Adds design reference for mechanical portion of electrical penetration.	Addition
8.4.1	4	8.3-26-8.4.1	8.3-42 and 8.3-49 [Am-68] Moves discussion that "...adequacy of penetration protective devices to protect the penetrations is established by detailed calculations..." from the end to the beginning of the discussion of compliance with Reg. Guide 1.63 for clarity.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
8.4.1	4	8.3-39-8.4.1	8.3-59 [Am-66] Adds design reference for mechanical portion of electrical penetration.	Addition
8.4.1	4	8.3-73-8.4.1	8.3-95 [Am-66] Adds design reference for mechanical portion of electrical penetration.	Addition

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
8.4.4	2	1AB-15-8.4.4-M	1A(B)-45 [Am-60] Adds a discussion on Regulatory Guide 1.75, Regualtory Position C.9. This change describes the use of splices in the CPSES design for cable terminations and references the analysis to justify such use in Appendix 8A. See Sec. 8.3 and 8A.	Revision
8.4.4	2	1AB-22-8.4.4-P	1A(B)-44 [Am-65] Adds the following exceptions to Regulatory Guide 1.75 Regulatory Position C.2: (1) for the purpose of electrical cable separation, acceptable enclosed raceway includes rigid metal conduit, electrical metallic tubing (EMT) and flexible metallic conduit; (2) ventilated tray covers are considered equivalent to solid non-ventilated tray covers; (3) cable bus enclosures are considered the same as enclosed raceway for separation purposes; and (4) a wrap of woven silicon dioxide is equivalent to a metal enclosed raceway with respect to protection from electrical failures. All of the above equivalencies are based on testing of similar cables for said type of enclosures, as described in Section 8.3.1.4.5. (See Section 8.3)	Revision
8.4.4	2	1AB-23-8.4.4-H	1A(B)-44 [Am-64] Provides design criteria used for Regulatory Guide 1.75, Rev. 1, Regulatory Position C.6 for separation between Class 1E wiring and non-Class 1E Area Radiation Monitoring detector wiring and Public Address System speaker wiring. This criteria was provided in TU Electric letters logged TXX-4315 and TXX-4390 dated September 25, 1984, and January 7, 1985, respectively. NRC acceptance of the criteria was given in their letter to Mr. W. G. Counsil from Mr. Vincent S. Noonan dated November 10, 1986. (see Sec. 8.3)	Revision
8.4.4	2	1AB-25-8.4.4-C	1A(B)-43 [Am-66] Re-classifies the AC Essential Lighting System and DC Emergency Lighting System as non-Class 1E. Lighting is not a safety related function. The AC Essential Lighting System is fed from safety related buses. It is isolated from the Class 1E power sources with two separate Class 1E breakers connected in series. These breakers are coordinated with their supply breaker and will be tested periodically. The circuits are routed in conduit to provide physical and electrical independence beyond the isolation breaker. The conduit meets the separation criteria given in Section 8.3.1.4. The DC Emergency Lighting, which was previously fed from Class 1E station batteries, will be fed from dedicated non-Class 1E batteries. These circuits are also routed in conduit to provide physical and electrical independence from Class 1E criteria given in Section 8.3.1.4. (NOTE: Primary review under SER 9.5.3; cable separation reviewed	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			under 8.4.4 and power supply interface for AC Essential Lighting System reviewed under 8.4.5)	
8.4.4	2	1AB-28-8.4.4-L	1A(B)-44 [Am-66] Adds exception to Regulatory Guide 1.75 Regulatory Position C.1 for the non-Class 1E diesel generator neutral grounding transformer. This transformer is connected to the neutral of the Class 1E diesel generator. An analysis has been performed which demonstrates that a fault on the non-Class 1E portion of the circuit will not cause an unacceptable influence on the Class 1E system. (see Sec. 8.3)	Revision
9.5.3	2	1AB-29-8.4.4-M	1A(B)-45 [Am-68] Adds two applications of splices in raceways justified by Appendix 8A (thermocouple reference junction boxes and field routed power cables spliced in manholes).	Revision
8.4.4	2	1AB-30-8.4.4-N	1A(B)-45, and -46 [Am-66] Adds an exception to Regulatory Guide 1.75 Regulatory Position C.12 for listed components which are not high energy equipment but are located inside the Cable Spreading Room/Control Room complex and have power circuits routed in exclusive conduits within the Cable Spreading Room/Control Room complex.	Revision
8.4.4	2	8.1-7-8.4.4	8.1-11 [Am-60] Adds a description of how operability of spliced circuits are verified (continuity check) and that the splices are qualified for anticipated service condition. This clarifies the existing description on butt-splices used in certain Class 1E panels, cabinets or racks, which reflects TUGCO commitments to ensure their acceptability (Refer to Results Report ISAP I.a.3 (Rev. 1) dated April 30, 1986).	Addition
8.4.4	2	8.1-10-8.4.4-C	T8.1-1 (sheet 3) [Am-66] Deletes emergency lighting as a Class 1E safety system since the AC Essential and DC Emergency Lighting Systems are reclassified as 1E. (NOTE: Primary review under SER 9.5.3; cable separation reviewed under 8.4.4 and power supply interface for AC Essential Lighting reviewed under 8.4.5)	Revision
8.4.4	2	8.3-1-8.4.4-C	8.3-1 [Am-66] The non-Class 1E AC essential lighting circuits are isolated from Class 1E power sources with two separate Class 1E breakers (i.e., main breaker and feeder breaker within the Class 1E lighting distribution panel) connected in series. These breakers are coordinated with their supply breaker and will be tested periodically to ensure that coordination is maintained. The non-Class 1E AC essential lighting circuits use interconnecting	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			cable (i.e., from the distribution panel feeder breaker to the lighting load) routed in conduit. The routing of the circuits in conduit ensure the physical and electrical independence from Class 1E circuits beyond the isolation breaker. The non-Class 1E DC emergency lighting circuits connected to dedicated batteries are routed in conduit. The routing of the circuits in conduit ensures physical and electrical independence from Class 1E circuits. The lighting circuits routed in conduit meet the separation criteria of FSAR Section 8.3.1.4. Note: Both AC Essential and DC Emergency Lighting Systems are reviewed in SER 9.5.3 for Fire Protection considerations. Both AC Essential and DC Emergency Lighting Systems would be reviewed in SER 8.4.4 for cable separation. (See 1A(B) R.G. 1.75). AC Essential Lighting System only would be reviewed in SER 8.4.5 for non-1E loads on 1E power supplies.	
8.4.4	2	8.3-36-8.4.4-C	8.3-52 and 8.3-53 [Am-66] The AC Essential Lighting System and DC Emergency Lighting System are reclassified as non-Class 1E. Lighting is not a safety related function. The AC Essential Lighting System is fed from safety related buses. It is isolated from the Class 1E power sources with two separate Class 1E breakers connected in series. These breakers are coordinated with their supply breaker and will be tested periodically. The circuits are routed in conduit to provide physical and electrical independence beyond the isolation breaker. The conduit meets the spearation criteria given in Section 8.3.1.4. The DC Emergency Lighting, which was previously fed from Class 1E station batteries, will be fed from dedicated non-Class 1E batteries. These circuits are also routed in conduit to provide physical and electrical independence from Class 1E circuits. The conduit meets the separation criteria given in Section 8.3.1.4. (See 1A(B) R.G. 1.75).	Revision
8.4.4	2	8.3-37-8.4.4-L	8.3-53 [Am-66] Adds exception to Reg. Guide 1.75 Regulatory Position C.1 for the non-Class 1E diesel generator neutral grounding transformer. This transformer is connected to the neutral of the Class 1E diesel generator. An analysis has been performed which demonstrates that a fault on the non-Class 1E portion of the circuit will not cause an unacceptable influence on the Class 1E system. (See 1A(B) R.G. 1.75).	Addition
8.4.4	2	8.3-47-8.4.4-H	8.3-67, -68 [Am-64] Provides design criteria used for separation between Class 1E wiring and non-Class 1E Area Radiation Monitor detector wiring and Public Address System speaker wiring. This criteria was provided	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			in TU Electric letters logged TXX-4315 and TXX-4390 dated September 25, 1984, and January 7, 1985, respectively. NRC acceptance of the criteria was given in their letter to Mr. W. G. Counsil from Mr. Vincent S. Noonan dated November 10, 1986. (See 1A(B) R. G. 1.75).	
8.4.4	2	8.3-49-8.4.4-E	8.3-68 [Am-68] Deletes discussion on isolation device and associated cables. Discussion in revised Section 8.3.1.2.1 applies.	Correction
8.4.4	2	8.3-54-8.4.4	8.3-71 [Am-68] [Am-62] Deletes "maintained at" since value listed represents a minimum criteria. Adds description of the separation criteria to be used for instrumentation and control cables, conduits, and cable trays. The change has been reworded from the advance change proposed in TXX-6185 dated December 19, 1986, to clarify the application of the criteria; however, the criteria itself and all associated notes and references remain unchanges, except that Amendment 68 adds criteria for certain AWG wire sizes and clarifies method of separation which can be used. The separations are based upon testing and analysis (Ref. 41 and 42). This change does not affect the existing commitments for power cable separation.	Revision
8.4.4	2	8.3-57-8.4.4-P	8.3-71, -72, -73 [Am-65] Adds the following forms of electrical separation used in the CPSES design: (1) for the purposes of electrical cable separation, acceptable enclosed raceway includes rigid metal conduit, electrical metallic tubing (EMT) and flexible metallic conduit; (2) ventilated tray covers are considered equivalent to solid non-ventilated tray covers, (3) cable bus enclosures are considered the same as enclosed raceway for separation purposes; and (4) a wrap of woven silicon dioxide is equivalent to a metal enclosed raceway with respect to protection from electrical failures. All of the above equivalencies are based on testing of similar cables for said types of enclosures, as described in this section. (See 1A(B) R.G. 1.75).	Revision
8.4.4	2	8.3-61-8.4.4-H	8.3-76 [Am-64] Notes that lesser separations are used for non-Class 1E Area Radiation Monitoring detector wiring and Public Address System speaker wiring and refers reader to previous description. NRC acceptance of the criteria was given in their letter to Mr. W.G. Counsil from Mr Vincent S. Noonan dated November 10, 1986. (See 1A(B) R.G. 1.75).	Revision
8.4.4	2	8.3-64-8.4.4-C	8.3-78 [Am-66] The DC Emergency Lighting System is reclassified as non-Class 1E. Lighting is not a safety related function.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			The DC Emergency Lighting, which was previously fed from Class 1E station batteries, will be fed from dedicated non-Class 1E batteries. These circuits are also routed in conduit to provide physical and electrical independence from Class 1E circuits. The conduit meets the separation criteria given in Section 8.3.1.4. (See 1A(B) R.G. 1.75).	
8.4.4	2	8.3-74-8.4.4-C	T8.3-1A [Am-68] Deletes AC Essential Lighting System from table. The AC Essential Lighting System is reclassified as non-Class 1E. The AC Essential Lighting System is fed from safety related ...es. It is isolated from Class 1E power sources with two separate ...s 1E breakers connected in series. These breakers are ...ordinated with their supply breaker and will be tested periodically. ...e circuits are routed in conduit to provide physical and electrical independence beyond the isolation breaker. The conduit meets the separation criteria given in Section 8.3.1.4. (See 1A(B) R.G. ..75).	Revision
8.4.4	2	8.3-110-8.4.4-C	F8.3-14 [Am-67] (Shts. 1 & 2) Sheets 1-2 The DC Emergency Lighting System is removed from the Class 1E station batteries and will be fed from dedicated non-Class 1E batteries. Sheet 1 Deletes emergency lighting loads from panels 1ED1-2 (ckt 4). Sheet 2 Deletes emergency lighting loads from panels 1ED2-1 (ckt 1) and 1ED2-2 (ck +4). (See 1A(B) R.G. 1.75).	Revision
8.4.4	2	8.3-119-8.4.4-N	8.3-64 [Am-66] Adds an exception to R.G. 1.75 position C.12 for listed components which are not high energy equipment but are located inside the cable spreading room/control room complex and have power circuits routed in exclusive conduits within the cable spreading room/control room complex. (See 1A(B) R. G. 1.75).	Addition
8.4.4	2	8.3-120-8.4.4-M	Appendix 8A [Am-60] This change incorporates an analysis performed to justify the use of cable splices in raceways to terminate field cables at CPSES. The incorporation of this analysis into the FSAR complies with Regulatory Guide 1.75, Revision 1, Regulatory Position C.9. An advance copy of this FSAR change was provided to NRR by TUGCO letter TXX-6014 dated October 3, 1986. This analysis is based upon analysis submitted to NRR by TUGCO letter TXX-4839 dated 6/6/86. This change consistes of an additional comment on Regulatory Guide 1.75 in Appendix 1A(B), the creation of a new Appendix 8A, to incorporate the analysis, and appropriate changes to Section	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			8.3 and the indices for consistency. (See 1A(B) R.G. 1.75).	
8.4.4	2	8.3-121-8.4.4-M	Appendix 8A-1, 8A-2, and 8A-5 [Am-68] Adds two applications of splices in raceways justified by Appendix 8A (thermocouple reference junction boxes and field routed power cables spliced in manholes). (Appendix was reissued in new FSAR format) (See 1A(B) R.G. 1.75)	Addition
8.4.4	3	8.3-44-8.4.4	8.3-63 [Am-66] Deletes the minimum separation requirements listed between distribution panels of redundant trains and channels located in the cable spreading room. There was no regulatory basis for this requirement and the separation requirements for redundant raceway will ensure the adequacy of panel separation. Note: Previous sentence given revision bar on deletion of a sentence.	Revision
8.4.4	3	8.3-50-8.4.4	8.3-69 [Am-60] Adds a description of the conduit to cable tray separation to the existing cable tray separation to clarify the methodology used at CPSES for separation of conduit and cable tray for compliance with the requirements of IEEE standard 384-1974 and Regulatory Guide 1.75 (Rev. 1, 1/75).	Addition
8.4.4	3	8.3-51-8.4.4	8.3-70 [Am-64] The basis for the separation criteria provided in Amendment 60 was not given in the text. This change adds that it was based on testing and analysis.	Addition
8.4.4	3	8.3-52-8.4.4	8.3-70 [Am-65] "Solid" is deleted from "solid tray covers" since ventilated and solid tray covers are considered equivalent for purposes of electrical cable separation.	Clarification
8.4.4	3	8.3-55-8.4.4	8.3-70 [Am-66] Adds Glastic barriers to description of internal materials. Glastic boards are used as barriers inside control panels. Those used are grades UTS or UTR. Flame resistance properties of these grades meet UL94-VO which meets the requirements for self-extinguishing materials classified by ASTM Std D635-1972, which is the requirement of IEEE Std 420-1982 for flame retardant materials used in control panels, and which is referred to by IEEE Std 420-1973 which applies to CPSES.	Addition
8.4.4	3	8.3-56-8.4.4-C	8.3-70 [Am-66] Specifically identifies the NSSS inverters which have integrally associated cables. Separation between Class 1E train related input cables and the Class 1E channel related output cables is not	Addition

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			required since these cables are integrally associated with each other. Adds to the description specifically identified "balance of plant" inverters which do not require separation since the associated circuits involved are isolated by a Class 1E breaker tripped by an "S" signal (i.e., the associated circuit meets the separation requirements of Regulatory Guide 1.75 for non-Class 1E circuits). Details are provided in new Table 8.3-10.	
8.4.4	3	8.3-71-8.4.4	8.3-95 [Am-62] Adds two new references (41 and 42) to Section 8.3 which are the supporting test reports used to generate the control and instrumentation cable separation criteria in paragraph 8.3.1.4 Item 5.	Addition
8.4.4	3	8.3-72-8.4.4	8.3-95 [Am-65] Adds test reports (References 43 and 44) referenced in revision to 8.3.1.4.5 for equivalent enclosed raceways.	Addition
8.4.4	3	8.3-89-8.4.4-G	T8.3-10 [Am-65] [Am-66] Adds new table listing equipment not requiring separation between Class 1E train related input cables and the Class 1E channel related output cables as described in Section 8.3.1.4 Item 5. Specifically identifies the NSSS inverters which have integrally associated cables. Separation between Class 1E train related input cables and the Class 1E channel related output cables is not required since these cables are integrally associated with each other. Adds to the description specifically identified "balance of plant" inverters which do not require separation since the associated circuits involved are isolated by a Class 1E breaker tripped by an "S" signal (i.e., the associated circuit meets the separation requirements of Reg. Guide 1.75 for non-Class 1E circuits). Details are provided in new Table 8.3-10.	Addition
8.4.4	4	1AB-24-8.4.4-K	1A(B)-43 [Am-68] Clarifies description of separation provided for non-Class 1E security lighting. Separation is provided by two separate Class 1E feeder breakers connected in series. These breakers are coordinated with their supply breaker and will be tested periodically to ensure that coordination is maintained. (see sec. 8.3)	Clarification
8.4.4	4	1AB-26-8.4.4-D	1A(B)-44 [Am-66] Clarifies the separation requirements for fiber optic cables. As fiber optic cables carry no electrical energy by themselves, they are not required to maintain physical separation between non-Class 1E and Class 1E circuits.	Addition
8.4.4	4	8.3-31-8.4.4	8.3-49 [Am-60] Adds reference to Appendix 1A(B) under discussion of R.G. 1.75 for consistency. (Information only).	Addition

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
8.4.4	4	8.3-35-8.4.4-K	8.3-52 [Am-68] Clarifies description of separation provided for non-Class 1E security lighting. Separation is provided by two separate Class 1E feeder breakers connected in series. These breakers are coordinated with their supply breaker and will be tested periodically to ensure that coordination is maintained. (See 1A(B) R.G. 1.75).	Clarification
8.4.4	4	8.3-40-8.	8.3-59 [Am-68] Updates the description of equipment tag numbers to reflect the current equipment tagging procedure.	Update
8.4.4	4	8.3-41-8.4.4	8.3-60 and 8.3-61 [Am-68] The color code for "Orange" is the symbol "Phi" (Amendment 65). Due to the computerized format of the FSAR this symbol is not repeatable between amendments and therefore the phrase "0 with a slash" will be used to designate this symbol.	Editorial
8.4.4	4	8.3-42-8.4.4	8.3-61 [Am-68] Adds nomenclature used for associated trains.	Addition
8.4.4	4	8.3-46-8.4.4	8.3-65 [Am-60] Adds reference to Appendix 1A(B) and Appendix 8A under discussion on cable separation for consistency. (Information only).	Editorial
8.4.4	4	8.3-48-8.4.4-D	8.3-68 [Am-66] Clarifies the separation requirement for fiber optic cables, as fiber optic cables carry no electrical energy by themselves, they are not required to maintain physical separation between non-Class 1E and Class 1E circuits. (See 1A(B) R.G. 1.75).	Addition
8.4.4	4	8.3-53-8.4.4	8.3-70 [Am-60] Changes "as stated in the beginning of this section" to "as stated above", changes "solidly enclosed raceways or other barriers" to "solid tray cover, bottoms, or other barriers" (Note: revised in Amendment 65 to remove "solid"), removes an unneeded "these", and adds "IEEE-384" to Regulatory Guide 1.75. This clarification makes the paragraph clearer to the reader by cleaning up the English, replaces an undefined "solidly enclosed raceways" with specifics, and adds an appropriate reference (IEEE-384).	Clarification
8.4.4	4	8.3-58-8.4.4	8.3-73 [Am-66] Clarifies that normal cable tray construction gaps do not violate separation criteria.	Clarification
8.4.4	4	8.3-59-8.4.4	8.3-74 [Am-62] Changes "maintained" to "preferred", since value listed represents the desired separation rather than minimum criteria.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			Adds reference to the instrumentation and control separation criteria in paragraph 8.3.1.4, Item 5.	
8.4.4	4	8.3-60-8.4.4	8.3-75 [Am-68] Clarifies separation between associated cables and non-Class 1E and Class 1E channels and redundant train cables.	Clarification
8.4.4	4	8.3-62-8.4.4	8.3-76 [Am-62] Adds reference to the instrumentation and control separation criteria in paragraph 8.3.1.4, Item 5.	Clarification
8.4.4	4	8.3-63-8.4.4-D	8.3-76 [Am-66] Clarifies the separation requirement for fiber optic cables, as fiber optic cables carry no electrical energy by themselves, they are not required to maintain physical separation between non-Class 1E and Class 1E circuits. (See 1A(B) R.G. 1.75).	Addition
8.4.4	4	8.3-122-8.4.4	Appendix 8A-8 [Am-68] Appendix 8A scope describes splice types by groups, not drawing details. Group 2 is equivalent to drawing detail 18.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
8.4.5	2	8.3-32-8.4.5-E	8.3-49 and 8.3-50 [Am-68] Revises the description of non-Class 1E loads connected to Class 1E buses and describes the methods of separation used, based on current design review. This revision requires review and update of the SER (Section 8.4.5). Additional information is provided on associated circuits. Greater detail is provided by new Table 8.3-11. The isolation devices provided meet the criteria and performance requirements of IEEE Std. 279-1971, Rev. 1, and the electrical isolation methods comply with the intent of IEEE Std. 384-1974.	Revision
8.4.5	2	8.3-90-8.4.5-E	T8.3-11 [Am-68] Adds new table which describes non-Class 1E loads connected to Class 1E Power buses and the methods of separation used, based on the current design review.	Addition
8.4.5	2	8.3-129-8.4.5-C	8.3-1, 52, 53, T8.1-1 (Sht. 3) [Am-66] The non-Class 1E AC essential lighting circuits are isolated from Class 1E power sources with two separate Class 1E breakers (i.e., main breaker and feeder breaker within the Class 1E lighting distribution panel) connected in series. These breakers are coordinated with their supply breaker and will be tested periodically to ensure that coordination is maintained. The non-Class 1E AC essential lighting circuits use interconnecting cable (i.e., from the distribution panel feeder breaker to the lighting load) routed in conduit. The routing of the circuits in conduit ensures the physical and electrical independence from Class 1E circuits beyond the isolation breaker. The lighting circuits routed in conduit meet the separation criteria of FSAR Section 8.3.1.4. Note: AC Essential Lighting System is reviewed in SER 9.5.3 for fire protection considerations. AC Essential Lighting System would be reviewed in SER 8.4.4 for cable separation. AC Essential Lighting System only would be reviewed in SER 8.4.5 for non-Class 1E loads on Class 1E power supplies. (See 1A(B) R.G. 1.75).	Revision
8.4.5	3	8.3-34-8.4.5-E	8.3-50 and 8.3-51 [Am-68] Clarifies the discussion on isolation devices used at CPSES between Class 1E and non-Class 1E control circuits. Impacts SER 8.4.5 discussion. Isolation transformers will no longer be used for an isolation device.	Clarification
8.4.5	4	8.3-14-8.4.5	8.3-13 [Am-68] Clarifies non-Class 1E loads which are isolated from Class 1E loads via reference to revised Section 8.3.1.2.1.7.a. for consistency.	Clarification

SER	Group	Evaluation Number	FSAR Amendad Description (Page Numbering per Am-68)	Change Classification
8.4.6	2	8.2-12-8.4.6	8.2-8 [Am-66] Correction of discussion on fire for bus ducts/cable trays. Certain sections pass through electrical equipment rooms which are not "inaccessible." The CPSES Fire Protection Program has provided adequate protection to ensure safe shutdown can be achieved for any fires that effect both preferred and alternate power source bus ducts/cable trays.	Correction
8.4.6	3	8.3-69-8.4.6	8.3-86 thru 8.3-88 [Am-66] Clarifies raceway fill criteria used for CPSES. Revises title from cable "tray" to "raceway" to include conduit. Adds instrumentation cables to discussion. Revises cable tray fill criteria discussion, references IPCEA P-46-426 for criteria, and deletes reference to the NEC. Adds information on requirements for cable fill for conduit. The new conduit fill requirements are a simplification of those contained in the NEC.	Revision
8.4.6	3	8.3-70-8.4.6	8.3-88 [Am-68] Adds "conduit support design is adequate" to conduit fill criteria.	Addition

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
8.4.7	4	8.3-15-8.4.7	8.3-12 and 8.3-14 [Am-66] The sequencer sequentially loads the safeguard buses onto the diesel generator. The current NRC terminology for the CPSES term "blackout" is "Loss of Offsite Power". (Note: Independent of this change, SER description is not correct.)	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification

Total Records Processed : 188

TU Electric FSAR Change Review

Chapter 08
EVALUATIONS SUMMARY BY ALPHA DESIGNATOR

ALPHA	GROUPS 1	2	3	4	TOTAL
		8	39	62	109
A		21	3		24
B			14	1	15
C		8			8
D				3	3
E		3	1		4
F			3		3
G			2		2
H		3			3
I			1	2	3
J		2			2
K				2	2
L		2			2
M		4			4
N		2			2
P		2			2
Totals :		55	63	70	188
Factored Totals :		17	45	66	128

TU Electric

FSAR Change Review Information

EVALUATIONS SUMMARY BY GROUP

Chapter : 08

SER	GROUPS 1	2	3	4	TOTAL
08.00.0				4	4
08.01.0		2	1	5	8
08.02.1		16	16	19	51
08.02.2		1	1	1	3
08.02.3			1	1	2
08.02.4		4			4
08.03.1		3	21	13	37
08.03.2		1	6	5	12
08.04.1		1	5	4	10
08.04.4		23	9	16	48
08.04.5		3	1	1	5
08.04.6		1	2		3
08.04.7				1	1
TOTAL :		55	63	70	188

TU Electric FSAR Change Review Information Chapter : 09 Page: 1

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.1	4	9.1-001-9.1	Sec. 9.1 [Am-66] This section is being reissued in the computerized format.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.1.1	2	9.1-002-9.1.1	9.1-2 [Am-57] Changes procedure so that inspected fuel elements will be stored without poly bags.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.1.2	2	9.1-003-9.1.2	9.1-6 [Am-60] Changes the description to reflect the "design" storage capacity in the number 1 and number 2 spent fuel pools separately. SER needs to be made consistent with the storage capacity as described he...	Correction
9.1.2	2	9.1-004-9.1.2	9.1-7 and 9.1-8 [Am-60] Changes the description to reflect the total "design" storage capacity and the minimum storage capacity when Unit 1 receives its operating license.	Correction
9.1.2	4	9.1-005-9.1.2	9.1-9 [Am-60] The typographical error "ve" is corrected to "be".	Editorial
9.1.2	4	9.1-006-9.1.2	9.1-12 [Am-60] Deletes the statement that both pools are required in the event that an entire core must be unloaded from one of the units for inspection. At the time Unit 1 receives its operating license, the Unit 1 Spent Fuel Pool will have a minimum storage capacity of 260 fuel assemblies with 16-inch center-to- center spacing. This installed capacity will allow for the full core from Unit 1 to be stored or the spent fuel from approximately 4 refueling outages.	Clarification
9.1.2	4	9.1-008-9.1.2	9.1-14 [Am-60] The typographical error "keff g 0.95" is corrected to "keff<0.95".	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.1.3	1	9.1-026-9.1.3	T9.1-1 [Am-66] Revises the table for decay heat produced, maximum SFP temperature and temperature rise time columns to indicate the latest revised data based on a new calculation. Deletes temperatures and time to rise to 180oF for full core unloading and one coding loop operation.	Revision
9.1.3	2	9.1-015-9.1.3-A	9.1-16 [Am-68] Deletes one loop operation for case no. 1 as single active failure need not be postulated for full load core (see SRP 9.1.3). Deletes all the references in the Section 9.1.3.	Revision
9.1.3	2	9.1-033-9.1.3	T9.1-4 [Am-68](Shts 1&2) Revises the startup dates to the dates after the plant is operational (see evaluation no. 9.1-025-9.1.3). SER IMPACT: SER, Section 9.1.3, page 9-6, paragraph 2, states "the system is in conformance with the requirements of 10CFR50, appendix A, GDC 2, 4, 5, 44, 46, 61 and 63". As described by the FSAR change, the system was also designed to meet GDC's 1 and 56.	Revision
9.1.3	3	9.1-009-9.1.3	9.1-15 [Am-68] Adds GDC 1 as it applies to safety related portions of spent fuel pool cooling and purifications system.	Revision
9.1.3	3	9.1-010-9.1.3	9.1-15 [Am-68] Deletes GDC 3 as fire protection program does not apply to this system.	Revision
9.1.3	3	9.1-011-9.1.3	9.1-15 [Am-68] Adds GDC 56 as it applies to containment isolation portion of the system (for skimmer line).	Revision
9.1.3	3	9.1-012-9.1.3	9.1-15 [Am-68] Adds GDC 61 as it applies to this system for capability of periodic testing, provisions for containment of radioactivity and decay heat removal from the spent fuel, reduction in fuel storage inventory under accident condition and purification of the pool water.	Revision
9.1.3	3	9.1-013-9.1.3	9.1-15 [Am-68] Adds GDC 63, as it applies to the monitoring systems to detect loss of heat removal, excessive radiation levels, and for initiating appropriate safety action.	Revision
9.1.3	3	9.1-014-9.1.3	9.1-15 [Am-68] Adds "Wet Cask Pit" in the list of components served by this system.	Revision
9.1.3	3	9.1-018-9.1.3	9.1-33 [Am-68] Revision reflects the requirements for determining boron concentration of the Reactor Coolant System and the refueling canal from daily	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			to every 72 hours as per NUREG-0452, the Westinghouse Standard Technical Specifications, and the CPSES proposed Technical Specifications submitted October 30, 1987.	
9.1.3	3	9.1-027-9.1.3	T9.1-3 [Am-68] (Sheet 1) Revises "minimum developed head" to "total, dynamic head" consistent with project specifications.	Revision
9.1.3	3	9.1-028-9.1.3	T9.1-3 [Am-68](Sheet 2) Revises design pressure of spent fuel pool demineralizers to 200 psig in lieu of 150 psig, which is consistent with project specifications.	Revision
9.1.3	3	9.1-029-9.1.3	T9.1-3 [Am-66](Sheet 2) Revises the maximum flow of spent fuel pool demineralizer and filter based on the revised calculation.	Revision
9.1.3	3	9.1-032-9.1.3	T9.1-3 [Am-68](Sheet 3) Revises project specification and vendor drawing of the purification loop resin traps strainer to show 100 mesh, which corresponds to 0.0060 in. or 0.15 mm perforation as per ASTM standards part 41 Section E437 (1977 Edition).	Revision
9.1.3	4	9.1-016-9.1.3	9.1-17 [Am-68] Corrects typo error from "in" to "is". Corrects the unit measurement of maximum activity of fission and corrosion products consistent with table 9.1-1.	Correction
9.1.3	4	9.1-017-9.1.3-A	9.1-25 [Am-68] Deletes reference to one loop operation as per page 9.1-16 and evaluation number 9.1-015-9.1.3-A.	Editorial
9.1.3	4	9.1-025-9.1.3	T9.1-1 [Am-68] Revises the table to show the number of years after the plant is operational instead of actual years, since the startup dates for Units 1 and 2 have been changed.	Update
9.1.3	4	9.1-030-9.1.3	T9.1-3 [Am-66](Sheet 2) Corrects perforation size of spent fuel pool suction screen from 0.1 in. to 0.08 in. to match as-built conditions.	Correction
9.1.3	4	9.1-031-9.1.3	T9.1-3 [Am-66](Sheet 3) Changes the purification loop resin trays perforation size from 0.5 mm to the actual size of 0.14 mm.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.1.4	2	9.1-007-9.1.4-B	9.1-13 [Am-66] CPSES has six Single Failure Proof (SFP) seismic Category I cranes and hoists. Four of these SFP cranes are the two containment polar cranes and the two fuel building overhead cranes. The phrase "Single Failure Proof" indicates that a hoisting system is designed to safely retain a specified lifted load with a single failure in the system. The fuel building overhead crane discussion has been updated to reflect a seismic Category I classification instead of seismic Category II. A seismic Category I classification for the SFP cranes and hoists at CPSES indicates the function requirement that the lifting device be able to maintain structural and safely retain the lifted load during and after special seismic events. The seismic classification provides additional assurance of the capability to retain lifted loads beyond the SFP design feature.	Revision
9.1.4	3	9.1-019-9.1.4-B	9.1-46 [Am-66] The polar crane and fuel building overhead crane discussion has been updated to reflect a seismic Category I classification instead of seismic Category II. (See the discussion with evaluation no. 9.1-007-9.1.4-B. An update is also provided to reflect the correct FSAR cross-reference.	Revision
9.1.4	3	9.1-022-9.1.4-B	9.1-60 [Am-66] An update is provided for the containment polar and fuel building overhead cranes, which represents these cranes as seismic Category I. (See the discussion for page 9.1-13.) The update also reflects that the loading combinations for the fuel building overhead crane includes OBE and SSE with lifted load. The loading combinations for the polar crane includes OBE with lifted load and SSE without lifted load.	Revision
9.1.4	3	9.1-023-9.1.4	9.1-60 [Am-66] This change corrects the text to read as, "2.5 mrem/hr or less", as per Westinghouse radiation analysis design manual SPM 412, Revision 3, page 5-58.	Correction
9.1.4	4	1.6-1-9.1.4	T1.6-1 [Am-66](Sht. 17) Deletes reference to WCAP 9198, "Reactor Vessel Head Drop Analysis". Since the SFP capabilities of the containment polar cranes make reference of this WCAP inappropriate. Also, this WCAP is not applicable to CPSES.	Correction
9.1.4	4	1.6-1-9.1.4	T1.6-1 [Am-66] (Sht. 17) Deletes reference to WCAP 9198, "Reactor Vessel Head Drop Analysis". Since the SFP capabilities of the containment polar cranes make reference to this WCAP inappropriate. Also,	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			this WCAP is not applicable to CPSES.	
9.1.4	4	9.1-020-9.1.4	9.1-57 [Am-66] An editorial correction is provided to reflect that the polar crane has a maximum "critical" load of 175 tons (instead of "noncritical"). Also, the discussion of WCAP 9198 (Reference [16]) is deleted because this report is not applicable to CPSES.	Clarification
9.1.4	4	9.1-021-9.1.4	9.1-58 [Am-66] The discussion of WCAP 9198 (Reference [16]) is deleted because this report is not applicable to CPSES.	Correction
9.1.4	4	9.1-024-9.1.4	9.1-67 [Am-66] Reference to WCAP 9198 is deleted because this report is not applicable to CPSES.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.2	4	9.2-001-9.2	Section 9.2 [Am-66] This section is being reissued in computerized format.	Editorial
9.2.	4	9.2-082-9.2	F9.2-11 [Am-63] Revision date and/or amendment number added.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.2.1	2	9.2-002-9.2.1	9.2-1 [Am-66] Deletes the SSW supply to the Fire Protection Booster Pumps, as CPSES design no longer includes Fire Protection Booster Pumps. SER Section 9.2.1, on page 9-8, 1st paragraph indicates, the "SSW can be used as a back-up Water Supply for the Fire Protection Booster Pumps" by this FSAR-CR, SER needs to be revised to delete the SSW back-up source to Fire Protection booster pumps.	Revision
9.2.1	2	9.2-003-9.2.1-E	9.2-2 [Am-68] Revises various SSW and CCW temperatures and time to cooldown on RHR. Also see discussion under evaluation no. 5.4-015-5.4.3-C.	Revision
9.2.1	3	9.2-005-9.2.1-C	9.2-3 [Am-66] This change revises the system operating description to reflect the operation of both SSW pumps to minimize the corrosion due to stagnation in the idle train under the previous mode of operation.	Revision
9.2.1	3	9.2-006-9.2.1	9.2-4 [Am-66] Describes the addition of the use of a toxic non- oxidizing biocide for the control of Asiatic clams and corrosion inhibitor in the Station Service Water System.	Revision
9.2.1	3	9.2-007-9.2.1	9.2-4 [Am-66] Revised to reflect the deletion of SSI water, "and to be noncorrosive" as the meaning of this phase was unclear.	Revision
9.2.1	3	9.2-008-9.2.1-C	9.2-5 [Am-66] Revises to reflect both pumps of Train "A" and Train "B" in operation to minimize corrosion due to stagnation. Note: SER Section 9.2.1, p 9-8, 5th paragraph.	Revision
9.2.1	3	9.2-010-9.2.1	9.2-9 [Am-66] Revises to delete the epoxy based lining in order to prevent sheet mode failure, which can plug safety related heat exchangers served by SSW System.	Revision
9.2.1	3	9.2-058-9.2.1	F9.2-1 [Am-67] Revision reflects the deletion of expansion joint and added a hard piece of pipe.	Revision
9.2.1	3	9.2-060-9.2.1	F9.2-1 [Am-67](Sheet 1) Revision reflects the replacement of existing globe valve to gate valve (XSW-42)	Revision
9.2.1	3	9.2-061-9.2.1	F9.2-1 [Am-67](Sheet 2) Adds vacuum breakers to service water system to prevent/mitigate water hammer in the system.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.2.1	4	9.2-004-9.2.1	9.2-2 [Am-68] Deletes sentence regarding continuous supply to lube oil coolers to pumps in one of two redundant safeguard trains per unit. This sentence was confusing as written. FSAR Section 9.2.1.2.1 provides a correct discussion. This discussion is not necessary in this location.	Clarification
9.2.1	4	9.2-009-9.2.1	9.2-7 [Am-68] Deletes Figure 9.2-2 which is replaced by Figure 9.2-1 for process flow and Figures 1.2-45 and 1.2-46 for equipment layout.	Correction
9.2.1	4	9.2-056-9.2.1	F9.2-1 [Am-67] Adds note 2 to the drawing as a reference.	Clarification
9.2.1	4	9.2-057-9.2.1	F9 2-1 [Am-67] Updates the figure to reflect as-built conditions: Adds thermal relief valves for overpressure protection of systems as per ASME B&PV Code, Section III requirements. Adds tag no. for chlorinator and update chlorine containers capacity.	Correction
9.2.1	4	9.2-059-9.2.1	F9.2-1 [Am-67] Adds line numbers, class breaks, flanges, and line sizes to reflect the as-built design of CCWS.	Correction
9.2.1	4	9.2-062-9.2.1	F9.2-2 [Am-68] Deletes Figure 9.2-2 which is replaced by Figure 9.2-1 for process flow and Figures 1.2-45 and 1.2-46 for equipment layout.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.2.2	2	9.2-018-9.2.2-F	9.2-29 [Am-66] Deleted the low flow alarms for the control room air- conditioning condensers, as the cooling water flow is regulated by refrigerant pressure.	Revision
9.2.2	2	9.2-022-9.2.2	9.2-32 [Am-60] Adds "and Letdown Chillers" to Section 9.2.2.5.3.2 item 6 title and following sentence to text: "In addition, the CCWS inlet and outlet valves to the ventilation chiller and letdown chiller condensers are closed automatically on an 'S' signal." Design modification changed the valve status from "passive" to "active" necessitating the ability to close these valves on an "S" signal (FV-4650A and B).	Correction
9.2.2	2	9.2-023-9.2.2	9.2-32 [Am-66] Upgrades the CCS flow instrumentation to class 1E to provide isolation of CCW to RCP thermal barrier following thermal barrier tube rupture.	Revision
9.2.2	2	9.2-026-9.2.2-G	9.2-24 [Am-66] Deletes the operator action to close the vent valves at CCWS Surge Tanks, because CCW surge tank relief capacity is provided. SER Section 9.2.2, page 9-10, 4th paragraph indicates, "Radiation monitors are designed to actuate alarm in the control room on high activity level and close the Surge tank and drain tank atmospheric vent valves". Due to this FSAR-CR, SER needs to revise the deletion of closing the vent valves at CCWS surge tanks.	Revision
9.2.2	2	9.2-067-9.2.2-G	F9.2-3 [Am-67](Sheet 1) Deletes the operator action to close the vent valves at CCWS Surge Tanks, because additional CCW surge tank relief capacity is provided. SER Section 9.2.2, page 9-10, 4th paragraph indicates, "Radiation monitors are designed to actuate alarm in the control room on high activity level and close the surge tank and drain tank atmospheric vent valves." Due to the FSAR-CR, SER needs to revise the deletion of closing the vent valves at CCWS surge tanks.	Revision
9.2.2	3	9.2-011-9.2.2-E	9.2-9 [Am-68] Revises time to cooldown on RHR and revises CCW temperatures. Also see discussion under evaluation number 5.4-015-5.4.3-E.	Revision
9.2.2	3	9.2-017-9.2.2	9.2-23 [Am-66] Revision reflects the addition of stainless steel material for relief valves, as certain heat exchangers served by CCW's are protected by stainless steel relief valves.	Revision
9.2.2	3	9.2-020-9.2.2	9.2-31 [Am-66] This revision reflects the addition of handwheels to the level control valves to the CCW surge tank, which provides the capability	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			of providing the make-up water in the event of loss of instrument air to the control valves.	
9.2.2	3	9.2-021-9.2.2-F	9.2-31 [Am-66] Revised the Chilled Water System condenser control to automatic control, actuated by refrigerant pressure. In the event of loss of air, Accumulator Backup Tank is added, and the valves are provided with handwheel for operator action. Adds CCW regulating valves which control CCW flow to/around the Ventilation condensers based on a pressure indicating controller on the refrigerant side of the condenser. This change allows the operation of ventilation chillers to cool plant equipment during the winter months.	Revision
9.2.2	3	9.2-024-9.2.2-F	9.2-32 [Am-68] Adds "that control grade alarms are provided for output high flow and temperature'. These alarms alert the operator to a potential rupture of the PCP thermal barriers.	Revision
9.2.2	3	9.2-025-9.2.2-F	9.2-33 [Am-60] Adds "and Letdown Chiller Condenser's" to the list of operations occuring from an 'S' signal.	Correction
9.2.2	3	9.2-047-9.2.2	T9.2-3 [Am-66] Adds additional corrosion inhibitors, to the list of inhibitors to be qualified for use in the CCW system to provide a more effective corrosion protection program for CCW system.	Revision
9.2.2	3	9.2-061-9.2.2	F9.2-3 [Am-67](Shts. 1 thru 3) Revises the figure to incorporate following changes and to be consistent with the as-built design: 1. Adds revised thermal relief valve capacity as per new calculation. 2. Shows the as-built locations of valves, pressure indicator, preasure transmitter, globe valve, and corrects the line numbers. 3. Adds additional thermal relief valve for the overpressure protection of system. 4. Adds rotary instrument air compressor package to increase the capacity of the existing system based on the new calculation.	Revision
9.2.2	3	9.2-065-9.2.2	F9.2-3 [Am-67] (Shts. 1 thru 3) Reflects the addition of relief valves.	Revision
9.2.2	3	9.2-066-9.2.2-F	F9.2-3 [Am-67](Sheet 1) Revises to reflect the installation of vent lines and changes to reflect the as-built conditions. Added pressure control on condenser for CCW flow. (See 9.2.2.5.2 para. 36, 9.2.2.5.3. para. 4 above). Evaluation no. 9.2-018-9.2.2-F	Revision
9.2.2	3	9.2-068-9.2.2	F9.2-3 [Am-67](Sheet 1) Replaces undersized thermal relief valves based on revised calculations.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.2.2	3	9.2-069-9.2.2-F	F9.2-3 [Am-67](Sheet 2) Adds CCW regulating valves which control CCW flow to/around the ventilation condensers based on a pressure indicating controller on the refrigerant side of the condenser. This change allows the operation of ventilation chillers to cool plant equipment during the winter months.	Revision
9.2.2	3	9.2-070-9.2.2	F9.2-3 [Am-67](Sheet 3) Adds line numbers, class breaks, flanges, line sizes, and miscellaneou changes to reflect the as-built design of CCWS.	Revision
9.2.2	3	9.2-071-9.2.2-F	F9.2-3 [Am-67](Sheet 3) Adds check valves upstream of RCP thermal barrier coolers to prevent CCW system overpressurization and to meet the single failure criterion.	Revision
9.2.2	3	9.2-072-9.2.2	F9.2-3 [Am-67](Sheet 3) Adds "L.C." to normally closed manual containment isolation valves per GDC 56.	Revision
9.2.2	3	9.2-073-9.2.2	F9.2-3 [Am-67](Sheet 3) Adds flexible hoses to nozzle connections to RCP coolers to prevent nozzle overload.	Revision
9.2.2	3	9.2-074-9.2.2	F9.2-3 [Am-67](Shts. 1 and 2) Adds L.O and L.C to valves in CCWS to perform the safety functio of the system, and to prevent loss of inventory between units 1 & 2 CCWS.	Revision
9.2.2	4	9.2-013-9.2.2	9.2-17 [Am-66] Adds 'q', reactor coolant post-accident sampling system sample cooler to the list of the components cooled by non-safety loop of Component Cooling Water System. This change is already processed earlier by Amendment 36 (TMI II-B-3) and Amendment 54 (Figure II.B.3-1). Change 'p' to 'q' by addition of 'q' (see above).	Correction
9.2.2	4	9.2-014-9.2.2-G	9.2-19 [Am-66] Clarifies the operation of surge tank when it overflows due to extreme surges, and routes the excess flow to the floor drains.	Clarification
9.2.2	4	9.2-015-9.2.2	9.2-22 [Am-66] This change reflects that tubes are "rolled into" in lieu of "welded to" the tube sheet.	Correction
9.2.2	4	9.2-016-9.2.2-G	9.2-22 [Am-66] Adds a summary description of the CCWS Surge Tank control functions and operator action in the event of excessive surges in the CCWS.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.2.2	4	9.2-019-9.2.2	9.2-30 [Am-68] CCWS pumps train A and B control switches are located on hot shutdown panel. CCWS pump train A transfer switch is located on shutdown transfer panel and CCWS pump train B transfer switch is located on hot shutdown panel.	Clarification
9.2.2	4	9.2-064-9.2.2	F9.2-3 [Am-67](Shts. 1 thru 3) Updates the figure to reflect the as-built conditions.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.2.3	3	9.2-028-9.2.3-N	9.2-35 [Am-56] Adds a paragraph describing the provision of a demineralized water transfer pump which is the primary source of fire suppression water to the containment hose stations and the deluge piping in the charcoal section of the containment pre-access filters.	Revision
9.2.3	3	9.2-029-9.2.3	9.2-35 [Am-66] This change reflects the addition of the demineralized water source to perform turbine generator primary flow rate testing during refueling outages.	Revision
9.2.3	3	9.2-033-9.2.3	9.2-36 [Am-68] Revises and clarifies that the minimum quantity of water is available during normal plant operation to achieve and maintain safe, cold shutdown. This includes modes 1 through 5 of the CPSES technical specifications. Adds a description of the systems that require a seismic category I makeup supply.	Revision
9.2.3	3	9.2-048-9.2.3	T9.2-9 [Am-55] Changes the analysis of demineralized water to reflect the latest water chemistry requirements. "Cation" conductivity is changed to "specific" conductivity. Chloride and Fluoride are given a finite limit of less than 0.15 ppm each. The pH requirement is not changed.	Update
9.2.3	3	9.2-049-9.2.3	T9.2-9 [Am-68] Revises the soluble silica concentration in demineralized water to less than 0.1 ppm in lieu of less than 0.2 ppm. 0.2 ppm was a typo-error to 0.02 ppm. Specification MS-150 originally specified 0.02 mg/liter which is equivalent to 0.02 ppm., and was subsequently revised to 0.1 ppm to provide less restrictive concentration of silica but still meet the Reactor water makeup requirements.	Revision
9.2.3	3	9.2-050-9.2.3	T9.2-10 [Am-57] Changes the specification for reactor makeup water to reflect the latest water chemistry requirements. "Electrical" conductivity is changed to "cation" conductivity. The chloride and fluoride limits are reduced from 0.15 ppm each to a total of 0.10 ppm taken together. Total solids is permitted to increase for 0.5 ppm to 1.0, but silica is reduced from 0.2 to 0.1 ppm.	Update
9.2.3	3	9.2-051-9.2.3	T9.2-10 [Am-66] Revision reflects the change in total Suspended Solids to a more conservative value of 'less than 0.05 PPM' for RMUW system as per Westinghouse system design criteria Specification (PIP. Vol 5-1).	Revision
9.2.3	3	9.2-076-9.2.3	F9.2-5 [Am-67] Revises this figure to show the addition of active relief valve DD-430 to Demineralized Water System penetration piping to	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			prevent overpressurization during containment isolation.	
9.2.3	3	9.2-077-9.2.3	F9.2-5 [Am-67] Changes the size of the RMWST overflow loop select line which provides alternate full flow atmospheric vent path, and protects the RMWST from overpressurization in the event of inadvertant operation of a manually operated overflow valve.	Revision
9.2.3	3	9.2-078-9.2.3	F9.2-5 [Am-67] Revision reflects the change in the line size of the condensate return pump discharge piping due to downsizing of the pump.	Revision
9.2.3	4	9.2-027-9.2.3	9.2-34 [Am-68] Revises as follows: a) Corrects the system title at various places in the text. b) Adds 10 CFR 50, App-A, to GDC for the proper title. c) Adds, "system Containment penetrations are designed to the requirements as described in Section 6.2.4."	Correction
9.2.3	4	9.2-030-9.2.3	9.2-35 [Am-68] Corrects the system name for the Water Treatment System.	Editorial
9.2.3	4	9.2-031-9.2.3	9.2-35 [Am-68] Deletes the reference to Figure 9.2-11 as it was deleted in Amendment 63 of CPSES FSAR.	Correction
9.2.3	4	9.2-032-9.2.3	9.2-36 [Am-68] Corrects the system name for water treatment system.	Editorial
9.2.3	4	9.2-034-9.2.3	9.2-36 [Am-68] Corrects the system title.	Editorial
9.2.3	4	9.2-035-9.2.3	9.2-37 [Am-60] Corrects the discharge location for the Water Treatment System from the evaporation pond to the Low Volume Waste Treatment Facility to make it consistent with Sections 9.2.3 and 9.2.8 as updated in Amendment 52.	Correction
9.2.3	4	9.2-036-9.2.3	9.2-37 and 9.2-38 [Am-68] Corrects the system title.	Editorial
9.2.3	4	9.2-037-9.2.3	9.2-39 [Am-68] Corrects the system name for Water Treatment System.	Editorial
9.2.3	4	9.2-052-9.2.3	T9.2-10 [Am-66] Clarifies the foot note as it applies to RCS and not steam supply system and also the oxygen concentration limit of 0.1 PPM applies when the RCS temperature is greater than 180oF (not the makeup water temperature).	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.2.3	4	9.2-053-9.2.3	T9.2-10 [Am-66] Deletes "and the steam space" since the oxygen content refers only to the RCS.	Correction
9.2.3	4	9.2-054-9.2.3	T9.2-10 [Am-66] Replaces "makeup" with "reactor" since it is the RCS coolant temperature which determines when makeup water can be above 0.1 ppm oxygen. The above changes are consistent with the Westinghouse Project Information Package "Chemistry Criteria and Specifications".	Correction
9.2.3	4	9.2-075-9.2.3	F9.2-5 [Am-67] Updates figures to reflect as-built conditions.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.2.4	3	9.2-038-9.2.4	9.2-41 [Am-60] Changes the sewage treatment plant capacity from 10,000 gpd to 105,000 gpd. This change revises the capacity of the treatment plant to reflect actual plant conditions.	Correction
9.2.4	3	9.2-039-9.2.4	9.2-43 [Am-60] Changes the requirement for drawing samples of potable water from several buildings to a single sample drawn daily. This change is consistent with the Texas Department of Health, Drinking Water Standards, Section VI, paragraph A.	Revision
9.2.4	3	9.2-079-9.2.4	F9.2-6 [Am-67] Revises the figure to reflect the following as-built conditions: 1. Current configuration of potable water piping in various buildings and fire protection system. 2. Misc. technical changes and corrects the title	Revision
9.2.4	3	9.2-080-9.2.4	F9.2-7 [Am-67] Revises the figure to add the additional building sewage lines, reflects the as-built conditions, and misc. technical changes such as adding clarification notes, line nos., tag nos., etc	Revision
9.2.4	3	9.2-083-9.2.4	F9.2-15 [Am-67] Revises the figure to reflect the as-built conditions. Revises the oil/water separator skid arrangement to be consistent with vendor drawing, and minor editorial and technical changes.	Revision
9.2.4	3	9.2-084-9.2.4	F9.2-16 [Am-67] Adds the note for administrative control for the repositioning of the spool piece in the waste management system.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.2.5	2	9.2-044-9.2.5-D	9.2-49 and 9.2-50 [Am-68] Revises the text based on the results from the revised safe shutdown impoundment heat load calculation, which uses maximum heat loads in lieu of gradient heat load during the duration of LOCA period.	Revision
9.2.5	3	9.2-040-9.2.5-E	9.2-47 [Am-68] Revises (conservatively) the basis for heat rates of cooling water discharged into the SSI from one train to two train operation. Also see discussion under evaluation no. 5.4-015-5.4.3-E.	Revision
9.2.5	3	9.2-041-9.2.5-E	9.2-47 [Am-68] Revises basis of spent fuel pool heat loads. Also see description under Evaluation no. 5.4-015-5.4.3-E.	Revision
9.2.5	3	9.2-043-9.2.5-E	9.2-49 [Am-68] Revises temperatures for component cooling water and service water. Also see description under Evaluation no. 5.4-015-5.4.3-E.	Revision
9.2.5	3	9.2-045-9.2.5-E	9.2-50 [Am-68] Revises various component cooling water temperatures. Also see description under Evaluation no. 5.4-015-5.4.3-E.	Revision
9.2.5	3	9.2-055-9.2.5-D	T9.2-11 and T9.2-14[Am-68] Deletes these tables since they contributed to the SSI heat load calculation utilizing the temperature gradient. This was revised per evaluation no. 9.2-044-9.2.5-D.	Revision
9.2.5	3	9.2-081-9.2.5-D	F9.2-8 and F9.2-10 [Am-68] Deletes the temperature histories reported in in these figures, since the calculational method described on page 9.2-49 no longer uses gradient heat load.	Revision
9.2.5	4	9.2-042-9.2.5	9.2-48 [Am-68] Corrects name of the spent fuel pool.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.2.6	2	9.2-046-9.2.6	9.2-53 [Am-66] Describes the modification of CST high level Control, which prevents CST overpressurization in the event of condenser Surge by isolating the makeup and reject line on CST Hi-Hi level. The condenser hot well is designed to the postulated taken surges in the event of CST high level. SER Section 9.2-6, page 9-14, 1st paragraph indicates "CST provides surge capacity for secondary system investory changes caused by different operational conditions." By this FSAR-CR, SER needs to be revised to delete the surge capacity of CST. The SER should give the usable capacity of the CST as 270,000 gallons.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.3.1	2	9.2-012-9.3.1-U	9.2-17 [Am-68] Adds Rotary instrument air compressor package for non safeguards loop to provide additional instrument air capacity.	Revision
9.3.1	3	9.3-015-9.3.1	F9.3-1 [Am-67] Revised to show the test connections valves within the containment penetrations which are normally closed manual isolation valves as locked closed valves, per GDC-56, 10 CFR 50 App. A.	Revision
9.3.1	3	9.3-016-9.3.1-U	F9.3-1 [Am-67] (Sht. 3) Revises Instrument Air System design to incorporate rotary air compressors as additional system capacity is required. This change shows the rotary compressor and its various components. (See evaluation no. 9.2-012-9.3.1-U)	Unknown
9.3.1	3	9.3-017-9.3.1	F9.3-2 [Am-67](Shts. 1 and 2) Revises the drawing to reflect as-built conditions and miscellaneous editorial and technical changes. Adds service air supply to fire water pump house.	Revision
9.3.1	3	9.3-018-9.3.1	F9.3-3 [Am-67](Shts. 1 thru 10) Revises the drawing to reflect as-built conditions and minor misc. editorial and technical changes. Adds the steam generator blowdown isolation valves. Relocates one air supply connection to ensure AFW flow to steam generators during an accident. Relocates the valves due to relocation of demineralized water transfer pump and add the instrument air supply lines.	Revision
9.3.1	3	10.4-053-9.3.1-L	T10.4-10 [Am-68](Sht. 2) Adds new instrument air compressor package to provide additional instrument air capacity. (See also evaluation no. 9.3-016-9.3.1)	Revision
9.3.1	3	10.4-078-9.3.1-L	F10.4-15 [Am-67] Adds new instrument air compressor package (see T10.4- 10, sheet 1 of 2). (See also evaluation no. 9.3-016-9.3.1)	Revision
9.3.1	4	9.3-001-9.3.1	Section 9.3 [Am-65] This section is being reissued in the computerized format.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.3.2	2	9.3-002-9.3.2	9.3-14 [Am-66] Revision reflects the deletion of the Boron Injection Tank, as the CPSES design does not include it. SER Section 9.3-2, page 9-16, 3rd paragraph Item 1 indicates "the requirements of GDC-13 by sampling the Boron Injection Tank for boron concentration". By this FSAR-CR, SER needs to be revised to reflect the deletion of Boron Injection Tank sampling.	Correction
9.3.2	3	9.3-004-9.3.2-H	9.3-15 [Am-55] Revises steam generator blowdown online analyzers to detect specific conductivity instead of pH. This provides a more reliable measurement consistent with water chemistry requirements.	Revision
9.3.2	3	9.3-007-9.3.2-H	9.3-20 [Am-55] Revises the description of instrument application to include the specific conductivity analysis and to remove the pH detection references while explaining how the plant operators will respond to the blowdown analysis.	Revision
9.3.2	3	9.3-009-9.3.2	T9.3-3 [Am-66] (Sht. 2) Revises table to show the addition of air operated valves that isolate the steam generators during DBA's and HELB.	Revision
9.3.2	3	9.3-010-9.3.2	T9.3-4 [Am-57](Sheet 2) Reduces sampling flow rate to meet the delay time requirements for N16 decay.	Correction
9.3.2	3	9.3-011-9.3.2-H	T9.3-4 [Am-55](Sheet 3) Removes the measurement for pH from the "Parameters measured" column of S.G. Blowdown and Downstream of blowdown cation demineralizers. Adds specific conductivity to the listing for S.G. Blowdown. This is consistent with the change to the text on page 9.3-15 covered by evaluation number 9.3-004-9.3.2.	Revision
9.3.2	3	9.3-019-9.3.2	F9.3-4 [Am-67] Revises drawing to show the system breaks between the Reactor Coolant System and the Process Sampling System.	Revision
9.3.2	3	9.3-020-9.3.2	F9.3-4 [Am-67] Adds "locked closed" to drain valves within the containment penetration boundary which are normally closed manual isolation valves, per GDC-56, 10 CFR 50, Appendix A.	Revision
9.3.2	3	9.3-022-9.3.2	F9.3-4 [Am-67] Adds relief valves to process sampling system for overpressure protection per ASME Code Section III, Subsection NC- 7155.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			(See also evaluation number 3.9-146-3.9.3).	
9.3.2	4	9.3-003-9.3.2	9.3-14 [Am-59] Clarifies that even the PASS sample lines are isolated at first. Adds a reference to FSAR Section II.B.3 for more details.	Clarification
9.3.2	4	9.3-005-9.3.2	9.3-18 [Am-59] The definition of the seismic design of Class 5 valves is removed in order to avoid multiple, diverse definitions within the FSAR.	Editorial
9.3.2	4	9.3-006-9.3.2	9.3-20 [Am-59] Changes the description of steam generator blowdown sample isolation upon an alarm from the monitor. In place of only sample isolation, it notes that the outboard sample and inboard process isolation valves close. Manual operation from the Control Room remains unchanged.	Clarification
9.3.2	4	9.3-021-9.3.2	F9.3-4 [Am-67] Updates the figures to show as-built piping (e.g. reducer location) design.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.3.3	3	9.3-012-9.3.3	T9.3-5 [Am-66] (Sheet 2) Revises the following as per existing design of the liquid storage tanks: 1. Typographical error - Corrects the tank capacity to 4100 gallons which is equivalent to 550 cu. ft. 2. Corrects FDT to WHT overflow from waste evaporator condensate tank drains in Waste Hold-up Tank (WHT). 3. Adds local level indication (PDP) for reactor make-up water storage tank.	Revision
9.3.3	3	9.3-013-9.3.3	T9.3-5 [Am-66](Sht. 3) 1. Corrects "overflow" to "relief valve discharge" to FDT, for Steam Generator Blowdown Spent Resin Storage Tank. 2. Deletes Waste Evaporator Condensate Tank. 3. Deletes Floor Drain Monitor Tank. 4. Corrects typographical error for reverse osmosis concentrate tanks elevation - change to 790 ft. 6 in.	Revision
9.3.3	3	9.3-023-9.3.3	F9.3-5 [Am-67] Adds locked closed valves. Adds safety class for drain valves.	Revision
9.3.3	3	9.3-024-9.3.3	F9.3-5 [Am-67](Sheet 1) Adds a relief valve for over pressure protection on penetration piping per ASME Section III, Subarticle NC-7155.	Revision
9.3.3	3	9.3-028-9.3.3	F9.3-9 [Am-67] Revises the figure to reflect the as-built conditions and minor editorial and technical changes. Changes the normally closed gate valves to normally closed globe valves.	Revision
9.3.3	4	9.3-025-9.3.3	F9.3-6 [Am-67] Updates the figures to reflect as-built conditions.	Correction
9.3.3	4	9.3-026-9.3.3	F9.3-7 [Am-67](Sheet 4) Corrects the line number.	Correction
9.3.3	4	9.3-027-9.3.3	F9.3-8 [Am-67] Deletes the service sink in Room 26, as the room is converted to a storage room in lieu of a janitorial closet.	Correction
9.3.3	4	9.3-032-9.3.3	F9.3-10 [Am-67](Sheet 3) Updates the figures to show as-built piping (e.g. reducer location) design.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.3.4	3	9.3-008-9.3.4	9.3-42, 9.3-43, 9.3-44 and 9.3-46 [Am-66] Deletes the automatic start of Reactor Make-up Water Pump, on demand from the reactor make-up controller. Reactor make-up water pump does not have a safety function and run continuously in normal operation, which allows the deletion of automatic start function.	Revision
9.3.4	3	9.3-014-9.3.4	T9.3-9 [Am-56](Sheet 3) Adds to component 3 the information that valve 1-8160 is analogous to 1-8152, and corrects identification from 1-8162.	Revision
9.3.4	3	9.3-029-9.3.4	F9.3-10 [Am-67] Adds locked closed to valves. Adds safety class break for isolation valves.	Revision
9.3.4	3	9.3-031-9.3.4	F9.3-10 [Am-67] Adds flexible hoses to RCP seal housing No. 1 seal leak off nozzle to prevent nozzle overload.	Revision
9.3.4	3	9.3-033-9.3.4	F9.3-11 [Am-67] Adds vacuum breaker on piping downstream of relief valve (1-RV-8634) to prevent column separation and pipe failure.	Revision
9.3.4	3	9.3-035-9.3.4	F9.3-11 [Am-67] Adds vacuum breaker on piping downstream of relief valve (1-RV-8634) to prevent column separation and pipe failure.	Revision
9.3.4	4	9.3-030-9.3.4	F9.3-10 [Am-67] Updates figures to reflect as-built conditions.	Correction
9.3.4	4	9.3-034-9.3.4	F9.3-11 [Am-67] Drafting error - changes valve number 1-8605 to 8605.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.4	2	1AB-12-9.4	1A(B)-21, 22, 23 [Am-66] Rearranges the exception paragraphs for Sectior C.2.g, C.3.h, C.5 and C.6 of NRC Regulatory Guide 1.52. Adds exception to part C.2.g, indicates that flow rates and pressure drops for ESF filtration units are not recorded or monitored by the control room. Alarm annunciators in the control room for units used for post-DBA are used to monitor design limits. Adds exception to part C.3.h, water drains. Check valves are used in lieu of seals or traps. Demister compartments for two primary plant ventilation systems and hydrogen purge filtration systems are not provided with seals, traps or check valves. By-pass through this is filtered before discharged through stack. Clarifies the part number C.5 and C.6. Add the application of revision of NRC Regulatory Guide 1.52 for part C.2.g and C.6.	Revision
9.4	2	9.4-065-9.4	T9.4-2 [Am-66] Updates the various indoor design conditions for the various plant areas, as per the present plant design.	Revision
9.4	2	9.4-075-9.4	T9.4-6 [Am-66] Reflects the following changes: 1. Adds air flows based on System design. 2. Updates residence time for 4" bed thickness which meets the requirements 0.25 sec. for 2" bed of NRC Regulatory Guide 1.52. 3. Updates the temperature (inlet) through system, based on loss of ventilation calculations.	Revision
9.4	3	9.4-067-9.4	T9.4-2a [Am-66] Deletes this table as the revised Table 9.4-2 incorporates the intent of the old Table 9.4-2a. This change is consistent with evaluation no. 9.4-065-9.4.	Revision
9.4	3	9.4-068-9.4	T9.4-4 [Am-66](Shts. 1 and 2) Updates the design parameters for the Prefilter and HEPA filters to conform with vendor data. These changes are consistent with the NRC Regulatory Guide 1.52, Rev. 1.	Revision
9.4	3	9.4-069-9.4	T9.4-4 [Am-66](Sht. 2) Updates the design parameters based on the total iodine inventory in lieu of total flow. Minimum charcoal weight is replaced with maximum iodine loading. These changes are consistent with the NRC. Regulatory Guide 1.52, Rev. 1, Subsection C.3.i.	Revision
9.4	3	9.4-070-9.4	T9.4-4 [Am-59] Removes reference to the BTP ETSB 11-2 for the efficiency of air clean-up filters and enters a commitment to R.G. 1.140 for non-ESF filters.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.4	3	9.4-084-9.4	T9.4-10 [Am-56] Line 1a is changed to indicate that the dampers will be locked open where required in place of a requirement for manual operation.	Revision
9.4	3	9.4-088-9.4	F9.4-1 (Sht. 1), F9.4-3, F9.4-4 (Shts. 1 and 2), F9.4-5, F9.4-7, F9.4-12, F9.4-14, and F9.4-15 [Am-66] Revises the flow diagrams to reflect the as-build design. Deletes the fire dampers. Updates the air flow and changes the layout of the flow diagrams. Adds cooling coils to CRDM (F9.4-5).	Revision
9.4	4	1AB-32-9.4	1A(B)-74 [Am-60] Corrects the inadvertant deletion of words (by Amendment 59) in discussion to Reg. Guide 1.140.	Editorial
9.4	4	9.4-026-9.4	9.4-18, 9.4-23 and 9.4-31 [Am-68] These changes are being made for consistency between HVAC components indicated on these pages and the changes made to Table 17A-1. These changes are evaluated under evaluation number 17A-039-322-J, item number 3. Note: These changes to the HVAC are consistent with appropriate specifications and the technical bases is unaffected. They include changes from Amendment 56 to the FSAR.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.4.1	1	9.4-009-9.4.1	9.4-10 [Am-68] Provides a statement that the chlorine detectors are not missile protected. This is because locating the detectors within the protected area adversely effects their operating sensitivity. Credit for their operation is not taken during postulated tornado events.	Revision
9.4.1	2	9.4-004-9.4.1	9.4-2 [Am-66] Revises text to clarify the control room location and revise the design parameters for the systems serving the control room area.	Revision
9.4.1	2	9.4-008-9.4.1	9.4-10 [Am-68] Deletes the phrases "plant vent stack high radiation signal" and "and the primary plant ventilation exhaust". Two redundant radiation monitors are provided for each control room intake air vent in lieu of an earlier design which employed one intake air monitor with backup from a plant vent stack high radiation monitor located on primary plant ventilation exhaust. Ser Section 9.4.1, page 9-21, 2nd paragraph, indicates that, "The control room emergency system automatically switches to recirculation mode upon failure of instrument air or offsite power, or upon receipt of a control room high radiation signal, a stack high-radiation signal, a safety injection signal..., as a result of the design change described by this FSAR change, the SER is no longer correct and the phrase "plant vent stack high radiation signal" need to be removed.	Revision
9.4.1	3	9.4-007-9.4.1	9.4-8 [Am-66] Changes the operator action time to stop one pressurization and one filtration unit fan to one hour instead of eight hours.	Revision
9.4.1	4	9.4-001-9.4.1	9.4-1 [Am-68] Provides a more detailed listing of the rooms at elevation 830 ft. 0 in.	Clarification
9.4.1	4	9.4-002-9.4.1	9.4-2 [Am-68] Provides a more detailed listing of the rooms at elevation 840 ft. 6 in.	Clarification
9.4.1	4	9.4-003-9.4.1	9.4-2 [Am-68] Provides the correct name for the control room HVAC and equipment rooms.	Correction
9.4.1	4	9.4-005-9.4.1	9.4-3 [Am-66] Adds the function of the non-safety related air-conditioning units servicing control room areas.	Addition
9.4.1	4	9.4-006-9.4.1	9.4-6 [Am-66] The intent of "at all times" for the control room air-conditioning system is clarified to be during normal operation.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.4.1	4	9.4-010-9.4.1	9.4-10 [Am-59] Changes the reference applicable to the iodine absorbers from R.G. 1.52 (Rev. 1) to the currently applicable revison as discussed in Appendix 1A(B).	Update
9.4.1	4	9.4-011-9.4.1	9.4-10 and 9.4-11 [Am-66] Corrects the table references in the paragraphs. Deletes the words, "in new conditions" to clarify the application of filter data/information.	Editorial
9.4.1	4	9.4-012-9.4.1	9.4-11 [Am-68] Deletes the sentence referring to Section 12.2.6, as that section does not exist.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.4.2	2	9.4-013-9.4.2	9.4-13 [Am-66] This change clarifies the fuel building room temperature during normal condition and adds the emergency condition room temperatures for spent fuel pool heat exchanger and pump rooms. Also, editorial changes and deletion of Table 9.4-2a.	Addition
9.4.2	2	9.4-014-9.4.2	9.4-13 [Am-56] Incorporates the operation of the latest revisions to the ventilation system in accordance with the resolution of SDAR 84-27. A slight negative pressure is maintained in the Fuel Handling Building during normal operation or a fuel handling accident. However, upon the loss of offsite power, the FHB exhaust will not be maintained by the primary plant exhaust units, so this reference has been removed.	Update
9.4.2	2	9.4-025-9.4.2	9.4-18 [Am-56] Adds a paragraph defining the Safety Class and seismic category of the Fuel Building exhaust duct work, the emergency fan coil units, and the spent fuel exhaust fans.	Addition
9.4.2	3	9.4-018-9.4.2-I	9.4-16 [Am-56] Removes a sentence saying that modulating supply air dampers control the slight negative pressure in the fuel handling area.	Correction
9.4.2	3	9.4-079-9.4.2	T9.4-9 [Am-56] Line item on fuel element drop is deleted since this is an accident treated in Section 15.7.4 and not a ventilation malfunction.	Revision
9.4.2	3	9.4-080-9.4.2	T9.4-9 [Am-56] Item 4 on the effect of loss of offsite power on the primary plant ventilation system is added in its entirety.	Addition
9.4.2	3	9.4-082-9.4.2	T9.4-9 [Am-59] The comment for Item 6 is changed to show that upon the failure of the ventilation heating coils the rate of evaporation from the Spent Fuel Pool will decrease (not increase as previously stated). A sentence on the relative humidity is removed since upon failure of the heater, control of humidity in the ductwork will be lost.	Revision
9.4.2	4	1AB-3-9.4.2	1A(B)-6 [Am-66] Clarifies the NRC Regulatory Guide 1.13 discussion to indicate that the normal plant exhaust filtration system operates continuously, during a fuel handling accident. The design was not changed but the previous description was not clear.	Clarification
9.4.2	4	9.4-015-9.4.2	9.4-13 [Am-56] The last paragraph is clarified to show that the ambient temperature for the spent fuel pool cooling pumps is maintained by emergency	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			fan coil units and the safety-related chilled water system.	
9.4.2	4	9.4-016-9.4.2	9.4-14 [Am-56] Modifies the wording on the buildup of tritium from "prevents" to "reduces" the buildup.	Correction
9.4.2	4	9.4-017-9.4.2	9.4-15 [Am-56] Corrects the name of the "plant ventilation vent" to "plant ventilation discharge vent". Adds "of the" after "bottom" in the eighth line.	Editorial
9.4.2	4	9.4-019-9.4.2	9.4-16 [Am-56] Corrects the name of the plant ventilation vent and adds an "a" to denote that there is one roughing filter and two HEPA filters.	Editorial
9.4.2	4	9.4-020-9.4.2	9.4-16 [Am-56] Improves the nomenclature of the sentence on routing the Fuel Building exhaust from the old name "modular exhaust filtration units" and deletes the reference to normally open dampers. Figure 9.4-2 (Sheet 3) is reference and does show 37,000 c m of ventilation air exhausting from the Fuel Building through a damper. Wording is added to show that the mist eliminators are in the pool exhaust ducts.	Editorial
9.4.2	4	9.4-021-9.4.2	9.4-16 [Am-66] Adds an air handling unit for storage room 250A in the fuel handling building to adequately cool the non-safety related equipment.	Addition
9.4.2	4	9.4-022-9.4.2	9.4-17 [Am-56] Removes reference to 120oF since the water will generally be operating below that temperature. Removes references to 130oF and 70 percent relative humidity. Technically, there is no change since mist eliminators are still provided and function in the intended manner.	Clarification
9.4.2	4	9.4-023-9.4.2	9.4-17 [Am-59] Changes wording to indicate that the demisters are effective against free water particles and not against humidity.	Correction
9.4.2	4	9.4-024-9.4.2	9.4-18 [Am-56] Removes three paragraphs describing the primary plant ventilation system and refers the reader to Section 9.4.3 which appropriately contains the description.	Editorial
9.4.2	4	9.4-076-9.4.2	T9.4-9 [Am-56] Item 2 changes from "system" to "fans".	Editorial
9.4.2	4	9.4-077-9.4.2	T9.4-9 [Am-56] Line item on a fire in the primary plant exhaust system is deleted since all fires are treated in Section 9.5.1.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.4.2	4	9.4-078-9.4.2	T9.4-9 [Am-56] Line item on loss of fuel pool cooling is given the number 3 and is unchanged except to clarify in the comments that it is "maximum" ambient which will not be affected.	Clarification
9.4.2	4	9.4-081-9.4.2	T9.4-9 [Am-56] Item 6 was numbered "4". "Electric heating coil" is change to "electric heaters".	Editorial
9.4.2	4	9.4-083-9.4.2	T9.4-9 [Am-56] Item 7 was numbered "5". The comment is charged to state the present name "Primary Plant Ventilation Exhaust System" in place of a generic reference to S-R air conditioning filters.	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.4.3	2	9.4-030-9.4.3	9.4-19 and 9.4-21 [Am-66] This change revises the section to include that a slight negative pressure is also maintained during and after a LOCA.	Revision
9.4.3	2	9.4-039-9.4.3-J	9.4-21 [Am-66] Defines fourteen exhaust units as "non-ESF" and adds two ESF exhaust units."	Addition
9.4.3	3	9.4-027-9.4.3	9.4-19 [Am-66] Reflects the addition of "emergency fans" for Room 100 to provide cooling, as per loss-of-non-safety equipment ventilation design change. Also, editorial changes and deletion of Table 9.4-2a.	Revision
9.4.3	3	9.4-028-9.4.3-I	9.4-19 [Am-56] Removes reference to the need to modulate Auxiliary Building supply dampers in order to maintain a slightly negative pressure.	Correction
9.4.3	3	9.4-031-9.4.3	9.4-20 [Am-56] Adds a paragraph describing the Recycle Holdup Tank compartments and the potential effects of a rupture of the tank diaphragms.	Addition
9.4.3	3	9.4-036-9.4.3	9.4-21 [Am-66] Revises to reflect that the differential measurement is provided to measure the slight negative pressure during normal operation and during, and after, a LOCA.	Revision
9.4.3	3	9.4-041-9.4.3-I	9.4-21 [Am-56] Inserts a description of the interlocking of the supply and exhaust fans.	Addition
9.4.3	3	9.4-042-9.4.3-J	9.4-23 [Am-56] All of the exhaust system up to the fan discharge is upgraded to seismic Category I, but reference to ANS Safety Class 3 is dropped. The air supply system is upgraded from seismic Category II to Category I except for the fans and dampers which change from non-seismic to Category II. (See evaluation no. 9.4-039-9.4.3-J.)	Revision
9.4.3	3	9.4-043-9.4.3-J	9.4-23 [Am-68] Item 4 picks up the ANS Safety Class 3 formerly located in the previous section and incorporates the seismic category revisions as listed above into the safety evaluation.	Revision
9.4.3	3	9.4-044-9.4.3-J	9.4-23 [Am-56] Adds item 5 on failure modes for dampers.	Addition
9.4.3	3	9.4-062-9.4.3-L	9.4-31 [Am-68] Separates the specification for the exhaust system to show some NNS, seismic II construction where it does not interfere with	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			safety functions.	
9.4.3	3	9.4-066-9.4.3	T9.4-2 [Am-68] Adds elevation for valve room and corrects minimum temperature for operating valve room in Auxiliary Building.	Correction
9.4.3	3	9.4-085-9.4.3	T9.4-10 [Am-56] Line 1b adds Auxiliary Building dampers to those which are locked open.	Addition
9.4.3	3	9.4-086-9.4.3	T9.4-10 [Am-56] Line 1c is changed from "Fan" isolation dampers to "Non-ESF Filtration Systems" isolation dampers. The comment is completely replaced to reflect current design.	Revision
9.4.3	3	9.4-089-9.4.3	F9.4-2 [Am-66](Shts. 1 thru 3) Revises the figures to reflect as-built conditions and the addition of cooling to boron injection surge tank room (Room 100) per changes identified in Section 9.4.3.1.	Revision
9.4.3	3	9.4-093-9.4.3	F9.4-9 [Am-66] Revises the figure to reflect the flow and velocity through the plant vent stack per changes identified for page 9.4D-2.	Revision
9.4.3	4	9.4-029-9.4.3	9.4-19 [Am-56] Adds wording to indicate that it is the emergency fan coil units which control the air temperature.	Clarification
9.4.3	4	9.4-032-9.4.3	9.4-20 [Am-56] Defines that it is the centrifugal charging pump rooms that have fan coil units. Deletes sentence which said particularly that the cooling is required for the charging pumps. Emergency fan coil units are provided for each of the various pumps required for a LOCA. Each compartment is maintained at an ambient temperature conducive to the long term operation of the equipment contained therein.	Clarification
9.4.3	4	9.4-033-9.4.3	9.4-20 [Am-56] The word "simultaneously" is deleted from the last paragraph. The preferred wording is that each fan unit starts "with the equipment it serves."	Editorial
9.4.3	4	9.4-034-9.4.3	9.4-21 [Am-66] Adds the system name to clarify the sentence further.	Clarification
9.4.3	4	9.4-035-9.4.3	9.4-21 [Am-56] Substitutes the word "required" for the word "used" to indicate that many more than three modular supply units may be used if	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			desired.	
9.4.3	4	9.4-037-9.4.3	9.4-21 [Am-66] Clarifies the placement of fan coil units in each pump room and which fan coil units are safety-related.	Clarification
9.4.3	4	9.4-038-9.4.3	9.4-21 [Am-66] Adds the word "purge" to define the supply units.	Clarification
9.4.3	4	9.4-040-9.4.3	9.4-21 [Am-59] Adds a reference to Figure 9.4-9 for capacity requirements.	Editorial
9.4.3	4	9.4-045-9.4.3	9.4-23 [Am-56] Numbering change. The present items 6 and 7 were numbered 5 and 6.	Editorial
9.4.3	4	9.4-046-9.4.3	9.4-24 [Am-56] Some of the ventilation equipment is located at elevation 886 ft 6 in in addition to elevation 873 ft 6 in. Reference to louvers in the air inlet duct is deleted. Reference to seismic Category II requirements is deleted. The word "appropriate" is used to denote the varying requirements as defined above.	Correction
9.4.3	4	9.4-063-9.4.3-L	9.4-31 [Am-56] Reference to seismic Category II for the design of supply system components is deleted. The word "appropriate" is used to denote the varying requirements as defined above.	Correction
9.4.3	4	9.4-087-9.4.3	T9.4-10 [Am-66](Sht. 1) Line 1d is changed from "Filter units" isolation dampers to " ESF Filtration System" isolation dampers. The first sentence of the comment is unchanged. The wording of the second sentence is clarified to indicate that each ESF unit will have its own set of dampers, not just the "Standby filter" units. Only the opposed blade dampers can be manually operated. Of course, the gravity type are not.	Clarification
9.4.3	4	9.4-090-9.4.3	F9.4-2 [Am-66](Sht. 3) Adds an air handling unit in storage room 250A.	Addition
9.4.3	4	9.4-108-9.4.3	9.4-22 [Am-56] Adds an "a" to denote that there is one roughing filter and two HEPA filters in each exhaust module.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.4.4	2	9.4-049-9.4.4-K	9.4-27 thru 9.4-29 [Am-56] Modifies the description of the operation of the system treating as one case the loss of offsite power together with a LOCA. The new description clarifies the use of the emergency fan coil units in the ESF pump rooms.	Update
9.4.4	2	9.4-058-9.4.4-K	9.4-30 [Am-56] States that only compartments containing ESF motor-driven pumps will have emergency fan coil units. Previously, the sentence read "all compartments which contain safety feature equipment". The motors are the chief heat generators requiring the cooling coils.	Revision
9.4.4	2	9.4-103-9.4.4	9.4C-6 [Am-66] Describes the dampers and heaters that provide make-up air and heating following a Loss of Offsite Power, to maintain the Battery Room under design conditions.	Revision
9.4.4	3	9.4-048-9.4.4-I	9.4-28 [Am-56] Deletes a sentence describing modulation of supply air to maintain negative pressure. Modulation will not be necessary to maintain the negative pressure due to fan sizing.	Revision
9.4.4	3	9.4-053-9.4.4	9.4-29 [Am-56] Removes the modifier "where applicable" from the commitment to seismically qualify fire dampers to remain open during an SSE.	Update
9.4.4	3	9.4-054-9.4.4-K	9.4-29 [Am-56] Removes a sentence describing the sizing of the ESF exhaust fans as inappropriate since the paragraph concerns only the cooling of ESF pumps by their emergency fan coil units.	Correction
9.4.4	3	9.4-055-9.4.4	9.4-29 [Am-56] Upgrades the main air supply system from Seismic Category II to I.	Revision
9.4.4	3	9.4-056-9.4.4	9.4-30 [Am-56] Adds the function of maintaining ambient temperature above the lower limit for some process piping to the original personnel comfort function of the unit heaters.	Revision
9.4.4	3	9.4-064-9.4.4-K	9.4-31 [Am-56] Deletes from item 7 references to compartment isolation and exhaust duct isolation. This is unnecessary. The local fan coil units will remove the heat load from each compartment.	Revision
9.4.4	3	9.4-092-9.4.4	F9.4-8 [Am-66] Revises the figure to reflect the battery room design per changes identified for page 9.4C-6.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.4.4	4	9.4-047-9.4.4	9.4-27 [Am-56] The Section heading number "9.45" is added. The word "Safeguards" is dropped from "Building" within the parenthesis	Editorial
9.4.4	4	9.4-050-9.4.4	9.4-28 [Am-56] A reference to Section 9.4.3 is added.	Editorial
9.4.4	4	9.4-051-9.4.4	9.4-28 [Am-56] Reference to the specific ambient temperature of 104oF is deleted, and reference to Table 9.4.1 is dropped.	Correction
9.4.4	4	9.4-052-9.4.4	9.4-28 [Am-66] Editorial changes and deletion of Table 9.4-2a.	Editorial
9.4.4	4	9.4-057-9.4.4	9.4-30 [Am-56] Deletes discussion of exhaust units in this section since they are covered previously in Section 9.4.3.2.	Editorial
9.4.4	4	9.4-059-9.4.4-K	9.4-30 [Am-56] Changes "Standby units" to "Standby fans" since the fans are indeed the device turned on. Changes "safety-related equipment room" to "Each motor driven ESF pump room" consistent with the revision noted above.	Clarification
9.4.4	4	9.4-060-9.4.4	9.4-31 [Am-56] Removes the words "two independent and separate" from reference to the chilled water systems, but provides new words to describe that the chilled water is trained with the power supply to serve each cooling unit.	Clarification
9.4.4	4	9.4-061-9.4.4	9.4-31 [Am-56] Adds the word "appropriate" to indicate that not all dampers are locked open.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.4.5	2	9.4-074-9.4.5	T9.4-5 [Am-66](Sht. 2) Changes the Control Rod Shroud Ventilation Fan capacity from 62,100 to 60,000 cu ft/minute per fan unit.	Correction
9.4.5	2	9.4-099-9.4.5	9.4C-1 [Am-66] Provides the correct function for the Diesel Generator Ventilation System. The description previously described the function of supplying combustion air but this function is accomplished by the Diesel Generator Combustion Air Intake and Exhaust System (See FSAR Section 9.5.8). SER Section 9.4.5, page 9-27 2nd paragraph indicates, "the diesel generator building Ventilation System is to provide outside air for diesel Combustion". Due to this FSAR change the SER needs to be revised to delete the system function of providing outside air for diesel combustion.	Correction
9.4.5	2	9.4-105-9.4.5	9.4D-2 [Am-66] Reflects the following changes: 1. Updates the design parameters of flow and velocity based on revised design documents. 2. Clarifies the flow through the vents based on the present design. 3. Adds the classification of vent stack as seismic Category II, and its effects on safety-related system in the event of failure.	Revision
9.4.5	3	9.4-091-9.4.5	F9.4-6 [Am-66] Revises the figure to reflect the containment penetrations piping test connections as locked closed per GDC-56 (10CFR50 Appendix-A). Also clarifies the note.	Revision
9.4.5	3	9.4-096-9.4.5	9.4A-3 [Am-66] Changes the design pressure of the containment pressure relief system to 1.5 psig, which is consistent with the containment design pressure criteria.	Revision
9.4.5	3	9.4-097-9.4.5	9.4A-5 [Am-59] Updates commitments from BTP ETSB 11-2 to R.G. 1.140 for containment preaccess filtration.	Update
9.4.5	3	9.4-098-9.4.5	9.4B-1 [Am-68] Revises the maximum indoor design temperature to 132oF based on new calculation.	Revision
9.4.5	3	9.4-101-9.4.5	9.4C-2 [Am-66] Adds the description of the isolation dampers in the MSFW piping area ventilation system, which protect the safety related equipment	Addition

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			located in the nearby areas from the effects of MSFW pipe breaks.	
9.4.5	3	9.4-102-9.4.5	9.4C-5 [Am-66] This change corrects the hydrogen concentration level to 2% as per FSAR Section 9.5.1, design criteria DC-305, and ANSI/ANS 59.2-1985.	Correction
9.4.5	3	9.4-104-9.4.5	9.4C-9 [Am-66] This change revises the indoor design conditions for the security office, deletes humidity requirement and updates temperature to represent the present as-built conditions.	Revision
9.4.5	4	9.4-071-9.4.5	T9.4-5 [Am-66](Sht. 1) Adds degree symbols for temperatures. Adds "(average)" after temperature for Neutron Detector Wall Unit Data.	Clarification
9.4.5	4	9.4-072-9.4.5	T9.4-5 [Am-66](Sht. 2) Adds missing degree symbols.	Editorial
9.4.5	4	9.4-073-9.4.5	T9.4-5 [Am-66](Sht. 2) Provides two new entries under Control Rod Shroud Ventilation Unit Data-Type of Coil and Cooling Medium.	Addition
9.4.5	4	9.4-100-9.4.5	9.4C-1 [Am-66] Clarifies the operation of Diesel Generator Building exhaust fans. Sufficient fans are started to ensure adequate room ventilation. The number of fans operating is limited during the winter to prevent the room temperature from falling below the minimum design temperature.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.4.6	2	9.4-106-9.4.6	9.4E-1 thru 9.4E-8 [Am-66] Entire chilled water system (non-safety) is redesigned to provide adequate cooling to the plant non-safety related areas.	Revision
9.4.6	3	9.4-094-9.4.6	F9.4-11 [Am-66](Shts. 1 thru 4) Revises the figures to reflect the changes due to system design as identified for pages 9.4E-1 through 9.4E-8.	Revision
9.4.6	3	9.4-095-9.4.6	F9.4-11 [Am-66] (Sht. 2) Adds relief valves and "locked closed" to valves.	Revision
9.4.6	3	9.4-107-9.4.6	9.4F-1 [Am-66] This change corrects the capacity of the safety related chillers to 101 tons. This is consistent with the project specification and design criteria.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-66)	Change Classification
9.5.1	2	1.2-23-9.5.1	1.2-28 [Am-65] Changes the technical description of the diesel generator day tank suppression systems to reflect as-built design. These systems are actuated automatically by the thermal detection system. This improves the response time of the suppression system.	Correction
9.5.1	2	7.4-29-9.5.1	T7.4-1, [Am-65](Shts. 1 and 3) Added a note to the tables to clarify the operational condition of the Train B RHR valve. Switches are available for control, but during normal operation the valve is not available until the breaker is inserted.	Addition
9.5.1	2	9.5-005-9.5.1	9.5-4 and -5 [Am-66] Adds the definition of engineering evaluation. This definition is provided to define the method of demonstrating levels of fire protection commensurate with the fire hazards present.	Addition
9.5.1	2	9.5-018-9.5.1-M	9.5-12 and 9.5-13 [Am-66] Changes the technical description of the Fire Protection Water Supply System to reflect the final as-built plant Fire Protection Water Supply System design. The final design utilizes two, greater than 100% capacity dedicated firewater storage tanks and three, 50% capacity, fire pumps.	Correction
9.5.1	2	9.5-033-9.5.1	9.5-15 [Am-66] Deletes the description of the Diesel Fire Pump Room Water Spray System to agree with the plant as-built design. The technical basis of the plant Fire Protection System is unaffected.	Correction
9.5.1	2	9.5-044-9.5.1	9.5-20 [Am-66] Adds reference to FSAR Section 9.5.1.6.1 (E.3.d) which permits engineering evaluations to identify, document and justify existing conditions and configurations.	Addition
9.5.1	2	9.5-050-9.5.1-M	9.5-22 and 9.5-23 [Am-66] Changes the technical description of the Fire Protection Water Supply System to reflect the final as-built plant Fire Protection Water Supply System design.	Correction
9.5.1	2	9.5-065-9.5.1	9.5-29 [Am-65] Deletes reference to service air powered smoke ejectors. Adequate smoke removal capacity is available without the services of this type of unit.	Revision
9.5.1	2	9.5-082-9.5.1	9.5-59 [Am-65] Changes the description of the drainage system for the battery	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			rooms to reflect the fact that two battery rooms depend on floor drains located in an adjacent corridor. There are no installed suppression systems in these rooms. Any suppression water supplied would be manual using hose stations. The doors to these rooms would then be open and the suppression water would drain to the corridor.	
9.5.1	2	9.5-094-9.5.1-O	9.5-72 and -73 [Am-56] The AC Essential Lighting System and DC Emergency Lighting System are being reclassified as non-Class 1E is removed from the Class 1E. Lighting is not a safety related function. The AC Essential Lighting System is fed from safety related buses. It is isolated from the Class 1E power sources with two separate Class 1E breakers connected in series. These breakers are coordinated with their supply breaker and will be tested periodically. The circuits are routed in conduit to provide physical and electrical independence beyond the isolation breaker. The conduit meets the separation criteria given in Section 8.3.1.4. The DC Emergency Lighting, which was previously fed from Class 1E station batteries, will be fed from dedicated non-Class 1E batteries. These circuits are also routed in conduit to provide physical and electrical independence from Class 1E circuits. The conduit meets the separation criteria given in Section 8.3.1.4. Although Appendix A states that emergency lighting units be sealed-beamed units, fixed fluorescent units, with individual 8-hour minimum battery power supplies, will also be used for certain applications, because of their superior performance. These fluorescent units are specifically permitted by Regulatory Guide 1.120, paragraph 4.3 (1).	Revision
9.5.1	2	9.5-105-9.5.1	9.5-88 [Am-66] Adds reference to engineering evaluations which identify, document and justify existing conditions and configurations.	Addition
9.5.1	2	9.5-121-9.5.1-S	9.5-106 and 9.5-114 [Am-66] Clarifies the description of how the Fire Protection Program meets the guideline. Adds reference to engineering evaluations for all areas where a fire barrier contains a non-rated feature.	Addition
9.5.1	2	9.5-123-9.5.1	9.5-115 and 9.5-116 [Am-65] Adds a description of the Bullet Resistant and Penetration Resistant doors used as fire doors. Assemblies are similar to units that have been listed with UL by the manufacturer. Deletes Reference 20. Updates Reference 19. Reference 19 is replaced with a reference containing a complete package of all justifications for deviations.	Addition
9.5.1	2	9.5-124-9.5.1	9.5-116 [Am-66] Adds the Fire Protection Program position statements on internal conduit seals.	Addition

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.5.1	2	9.5-126-9.5.1-O	9.5-117 [Am-66] The AC Essential Lighting System and DC Emergency Lighting System are reclassified as non-Class 1E. The DC Emergency Lighting System will be powered off dedicated non-Class 1E batteries (See evaluation number 9.5-094-9.5.1-O.	Revision
9.5.1	2	9.5-127-9.5.1	9.5-118 [Am-66] Changes the description to reflect the as-built system. Item 4 reflects the use of two of three fire pumps to meet system functions in place of one of two fire pumps.	Correction
9.5.1	2	9.5-130-9.5.1-T	9.5-121 [Am-65] Adequate handheld fire extinguishers are provided for all hazards present in the radwaste areas.	Revision
9.5.1	2	9.5-220-9.5.1	010-47 [Am-65] Updates description of methodology used by CPSES to perform the fire safe shutdown analysis.	Correction
9.5.1	2	9.5-223-9.5.1	010-50 [Am-66] Reflects the completion of the breaker/fuse coordination analysis.	Update
9.5.1	2	9.5-225-9.5.1	010-50 and -51 [Am-66] Revises the methodology for reviewing cables for common enclosure concerns. A complete analysis was performed in lieu of a sampling method.	Update
9.5.1	2	9.5-226-9.5.1	010-52 [Am-66] Adds the separation criteria of "fire safe shutdown" cables and equipment and "fire stops" as part of the fire propagation/mitigation scheme. Adds reference to Section 9.5.1.5.5. These additions reflect how intervening combustibles are addressed in the Fire Safe Shutdown Analysis.	Addition
9.5.1	2	9.5-231-9.5.1	010-54 [Am-66] Deletes requirement that a redundant component be assigned to a different safety train. Redundant components may also be supplied from the same train. This does not change the design criteria or basis.	Correction
9.5.1	2	9.5-240-9.5.1	040-144 [Am-65] Updated response to NRC questions to reflect current analytical techniques used in the analysis for cable separation.	Correction
9.5.1	3	9.5-004-9.5.1	9.5-4 [Am-65] Added a definition of Maximum Permissible Fire Load. The combustible loading calculations have been as-built and this represents an	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			as-built design limit based on installed fire protection features.	
9.5.1	3	9.5-006-9.5.1	9.5-5 [Am-65] Changed the assumptions for combustible loading calculations. As-built combustible loading calculations have replaced design calculations originally provided. The as-built calculation results have been reviewed against the Maximum Permissible Fire Load to verify design margin maintenance. The cable loading values are based on cable counts and BTU values for each cable located in a Fire Area/Zone.	Correction
9.5.1	3	9.5-008-9.5.1	9.5-6 [Am-65] Changes methodology for calculation of combustible loading. The as-built combustible loading calculations have accounted for the insitu combustibles. Transient combustibles are enveloped by the design margin maintained between the as-built combustibles and the Maximum Permissible Fire Load.	Correction
9.5.1	3	9.5-030-9.5.1	9.5-15 [Am-65] Adds reference to plant areas or components protected by automatic water spray systems to clearly identify where such systems are provided in the as-built installation and to be consistent with other FSAR sections. This clarifies what type of suppression systems are utilized to protect respective plant hazards. The technical basis is not affected.	Addition
9.5.1	3	9.5-031-9.5.1	9.5-15 [Am-65] Revises description of deluge valves utilized in water spray systems protecting atmospheric cleanup units (ACUs) to reflect that no provision for manual operation exists in the as- built installation. The deluge valves provided are for a specialized HVAC application and meet Reg. Guide 1.52 requirements. The valve design precludes inadvertent operation by being seismically qualified. The technical basis is not affected.	Correction
9.5.1	3	9.5-036-9.5.1-N	9.5-16 and -17 [Am-56] Describes the inclusion of the demineralized water transfer pump as the primary suppression supply for the containment fire protection for the pre-access charcoal absorber beds. (See also evaluation number 9.2-028-9.2.3-N).	Update
9.5.1	3	9.5-041-9.5.1	9.5-18 and 9.5-19 [Am-66] Adds description of plant manual deluge sprinkler systems.	Addition
9.5.1	3	9.5-043-9.5.1	9.5-19 [Am-66] Adds reference to FSAR Section 9.5.1.6.1(E.4) permitting differing Halon concentrations in accordance with engineering evaluations which identify, document and justify existing conditions and	Addition

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			configurations.	
9.5.1	3	9.5-047-9.5.1-M	9.5-21 [Am-66] Editorial correction of "on" to "of". Changes the technical description of the Fire Protection Water Supply System to reflect the final as-built Plant Fire Protection System design. The final design utilizes two, greater than 100% capacity dedicated firewater storage tanks and three, 50% capacity, fire pumps.	Correction
9.5.1	3	9.5-054-9.5.1	9.5-24 [Am-66] Includes reference to Fire Protection Report for Administrative Controls of the Fire Protection Program. This addition is in support of the deletion of Fire Protection surveillances from Technical Specification.	Addition
9.5.1	3	9.5-056-9.5.1-S	9.5-25 [Am-66] Adds reference to FSAR Section 9.5.1.6.1 which permits as an alternative engineering evaluations to identify, document and justify existing conditions and configurations.	Addition
9.5.1	3	9.5-060-9.5.1	9.5-27 [Am-66] Adds removable concrete hatches, a feature of the CPSES fire protection system design previously not discussed. Concrete hatches have been evaluated and justified in an engineering evaluation.	Addition
9.5.1	3	9.5-061-9.5.1	9.5-28 [Am-66] Changes the testing requirements for certain penetration seals. All penetration seals are tested to ASTM E- 119. Only electrical penetration seals are tested to IEEE 634.	Revision
9.5.1	3	9.5-063-9.5.1	9.5-28 [Am-65] Eliminates exception to provide approved fire dampers with a rating equivalent to that designated for a fire barrier of two hours or greater resistance. Dampers which meet this requirement are being installed.	Update
9.5.1	3	9.5-069-9.5.1	9.5-37 [Am-65] Revises description of Engineer to reflect the involvement of other Architect-Engineers and consultants in the CPSES Project.	Correction
9.5.1	3	9.5-076-9.5.1-S	9.5-54 [Am-66] Adds reference to engineering evaluations which identify, document and justify existing conditions and configurations.	Addition
9.5.1	3	9.5-080-9.5.1	9.5-58 [Am-66] Identifies that a previously submitted and accepted deviation for fire barrier rating exists.	Correction
9.5.1	3	9.5-085-9.5.1	9.5-60 [Am-66] Adds statement of acceptance of modifications for security purposes, from U.L. Inc.	Addition

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.5.1	3	9.5-091-9.5.1	9.5-65 [Am-66] Adds description of internal conduit seals. Three hour fire rated seals are provided on one or both sides of a fire barrier inside conduits depending on the size of the conduit, except as described in Section 9.5.1.6.2.	Addition
9.5.1	3	9.5-093-9.5.1	9.5-69 [Am-56] Adds a commitment to minimize the use of combustible materials at air intakes.	Addition
9.5.1	3	9.5-095-9.5.1	9.5-73 [Am-66] Makes correction as shown for technical accuracy. Portable radios with page-party/public address as backup provide more reliable system for communication than does the installed Sound Powered Telephone System.	Revision
9.5.1	3	9.5-096-9.5.1	9.5-73 [Am-66] Makes addition as shown for technical accuracy. Radio to radio "talk-around" is provided see Section 9.5.2.2.4 for additional description of intra plant portable radios. The page-party/public address system is used as a backup in case of damage to the fixed repeater system.	Addition
9.5.1	3	9.5-100-9.5.1	9.5-74 and -75 [Am-66] Adds reference to the separate evacuation alarm provided for audible annunciation of a fire in Control Room complex per DMRC 87-1-069.	Addition
9.5.1	3	9.5-101-9.5.1-M	9.5-78 thru 9.5-80 [Am-66] Changes the technical description of the Fire Protection Water Supply System to reflect the final as-built plant Fire Protection Water Supply System. The final design utilizes two, greater than 100% capacity dedicated firewater storage tanks and three, 50% capacity, fire pumps.	Correction
9.5.1	3	9.5-109-9.5.1-S	9.5-93 [Am-66] Adds reference to engineering evaluations which identify, document and justify existing conditions and configurations.	Addition
9.5.1	3	9.5-117-9.5.1	9.5-106 [Am-65] Adds description of three hour barriers between fire areas containing safety related pumps and other fire areas.	Addition
9.5.1	3	9.5-118-9.5.1-T	9.5-108 [Am-65] Provides a discussion of an alternate means of manual suppression provided for Radwaste Areas. CPSES does not use wheeled extinguishers	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			as suggested in the BTP 9.5-1.	
9.5.1	3	9.5-119-9.5.1-T	9.5-108 [Am-65] Deletes the provision for large wheeled portable extinguisher units in radwaste areas. Adequate handheld portable extinguishers are provided for the hazard.	Revision
9.5.1	3	9.5-122-9.5.1	9.5-114 [Am-65] Deletes paragraph on guideline D.1.f which contained justification for wood trim used for control room suspended ceiling. The wood trim was removed when the ceiling was redesigned and reinstalled.	Correction
9.5.1	3	9.5-170-9.5.1	9.5-165 to 9.5-167 [Am-65] Adds references to industry standards and applicable editions used for establishing code compliance or as guidance. Change reflects as-build plant conditions.	Addition
9.5.1	3	9.5-170-9.5.1	9.5-165 to -167 [Am-65] Adds references to industry standards and applicable editions used for establishing code compliance or as guidance. Change reflects as-built plant conditions.	Addition
9.5.1	3	9.5-171-9.5.1	9.5-165 and 9.5-166 [Am-66] Deletes reference to incorrect code year. (2 places).	Correction
9.5.1	3	9.5-171-9.5.1	9.5-165 and 166 [Am-66] Deletes reference to incorrect code year. (2 places)	Correction
9.5.1	3	9.5-183-9.5.1	F9.5-43 [Am-68] (Sheet 1) Adds information regarding the Fire Protection Water Supply System. This change is made to reflect current design conditions. The design has been revised in this amendment to include connection to the Permanent Treated Fire Protection Water Supply.	Addition
9.5.1	3	9.5-188-9.5.1	F9.5-44 [Am-68] (Sheet 1) Adds information regarding the Fire Protection Water Supply System. This change is made to reflect current design conditions. The design has been revised in this amendment to include information pertaining to an additional Fire Suppression System provided in the Unit 1 Turbine Building.	Addition
9.5.1	3	9.5-196-9.5.1	F9.5-46 [Am-68] (Sheet 1) Adds information regarding the Fire Protection Water Supply System. The change is made to reflect current design conditions. This design has been revised in this amendment to include information pertaining to an additional Fire Suppression System provided in the Unit 1 Turbine Building.	Addition

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.5.1	3	9.5-197-9.5.1	F9.5-46 [Am-68] (Sheet 1) Adds information regarding the Fire Protection Water Supply system. The change is made to reflect current design conditions. This design has been revised in this amendment to include information pertaining to additional fire hose cabinets located in the Safeguards and Diesel Generator Buildings.	Addition
9.5.1	3	9.5-199-9.5.1	F9.5-46 [Am-68] (Sheet 1) Adds information regarding the Fire Protection Water Supply System. The change is made to reflect current design conditions. This design has been revised in this amendment to include information pertaining to additional fire hose cabinets located in the Safeguards and Diesel Generator Buildings.	Addition
9.5.2	3	9.5-204-9.5.1	F9.5-47 [Am-66] Adds information regarding the Fire Protection Water Supply System. This change is made to reflect current design conditions. The design has been revised in this amendment to include information pertaining to the monitoring of system operation, provided for the Control Room Standpipe and Hose System.	Addition
9.5.1	3	9.5-205-9.5.1	F9.5-48 [Am-66] Modified figure to show normally closed manual isolation valves in the containment penetration boundary. These valves must be locked closed for GDC-56. Also illustrates safety class break in the penetration boundary at the isolation valve.	Correction
9.5.1	3	9.5-213-9.5.1	F9.5-61 [Am-68] (Sheet 1) Added connections for outlying buildings Fire Suppression systems.	Addition
9.5.1	3	9.5-218-9.5.1	F9.5-62 [Am-68] (Sheet 2) Added a new figure showing details of the chemical treatments for Fire Protection Treated Water System makeup supply. This system is provided for corrosion control within the Fire Protection System.	Correction
9.5.1	3	9.5-232-9.5.1	010-54 [Am-66] Adds the consideration of alternate shutdown capability when off-site power is assumed to be available, which is a necessary condition with or without the availability of off-site power.	Revision
9.5.1	3	9.5-239-9.5.1	010-64 [Am-66] Added statement to verify required post fire operator actions for other fire areas exist in plant procedures.	Addition
9.5.1	4	1.2-3-9.5.1	1.2-23 [Am-66] Clarifies the explanation of fixed Fire Suppression Systems throughout the plant by deleting the word "deluge" from the term "Deluge	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			Water Spray System". The technical basis of the Water Spray System design is unaffected.	
9.5.1	4	1.2-4-9.5.1	1.2-24 [Am-65] Changes description of fire detectors to reflect the fact that ionization detectors are the only devices with indicating lamps in the base of the unit. This is not a requirement and other detectors are annunciated by zone at the local and main fire detection panels.	Correction
9.5.1	4	1.2-5-9.5.1	1.2-24 [Am-65] Clarifies the type of automatic fixed extinguishing systems that are actuated by the fire detection system. Other automatic suppression systems have been added that actuate upon detection of heat by fusible link mechanisms integral with sprinkler heads.	Clarification
9.5.1	4	1.2-7-9.5.1	1.2-24 [Am-66] Clarifies the explanation of fire detector by adding "unless the system is designed strictly for manual operation." The technical basis of the detection system is unaffected.	Clarification
9.5.1	4	1.2-8-9.5.1	1.2-25 [Am-65] Changes the description of thermal detector types used at CPSES. This change reflects plant conditions.	Correction
9.5.1	4	1.2-9-9.5.1	1.2-25 [Am-65] Changes the description of the use of strip thermistor heat detectors to reflect the as-built plant condition. Spot type thermal detectors are used for transformers not strip thermistors.	Correction
9.5.1	4	1.2-10-9.5.1	1.2-25 [Am-65] a. Adds a technical description of flame detectors used in the plant. b. Deletes description of detection systems which actuate suppression systems. This eliminates redundancy with description on Page 1.2-24.	Update
9.5.1	4	1.2-11-9.5.1	1.2-26 [Am-65] Deletes specific statements made regarding alarm system trouble indication to eliminate redundancy. Alarm system trouble indication is discussed on FSAR Page 9.5-11.	Clarification
9.5.1	4	1.2-12-9.5.1	1.2-26 [Am-65] Clarifies the technical description of Class A detection that has been provided for the cable spreading room to automatically actuate the Halon system.	Clarification
9.5.1	4	1.2-13-9.5.1	1.2-26 [Am-65] Changes description of fixed water spray systems to reflect the fact that suppression systems added include water spray, sprinkler,	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			and Halon systems.	
9.5.1	4	1.2-14-9.5.1	1.2-26 [Am-65] Changes the technical description of system operating pressures from a specific pressure to reflect the changes that occurred during construction. A nonspecific set point is described. The set point will be maintained at a pressure adequate to support suppression systems demands within the plant.	Correction
9.5.1	4	1.2-15-9.5.1	1.2-26 [Am-65] Changes the technical description of the Fire Protection Water Supply System to reflect the final as-built Plant Fire Protection Water Supply System design. The final design utilizes two, greater than 100% capacity, dedicated fire water storage tanks and three, 50% capacity, fire pumps independently connected to the underground yard main loop. The tank pump and valve arrangement facilitates suction from either or both tanks. There are two diesel engine driven fire pumps and one electric motor driven fire pump housed in a structure protected by automatic sprinklers and detection.	Clarification
9.5.1	4	1.2-16-9.5.1	1.2-27 [Am-65] Changes the description of the number of connections to the underground loop to reflect the addition of connections to meet increased system demands. The adequacy of the underground loop connection is assured by hydraulic calculations of system demand.	Correction
9.5.1	4	1.2-17-9.5.1	1.2-27 [Am-65] Deletes description of normally dry standpipes and deluge valves from the discussion of standpipe isolation. The plant now utilizes normally wet standpipes except in certain highly sensitive areas. The adverse effects of these standpipes has been evaluated by the MEB 3-1 criteria and protective measures implemented where unacceptable interactions were identified. Correction: Discusses yard post indicator valves located in the branch lines to the maintenance and administration buildings are used in accordance with NFPA 24, not NFPA 13 and 14.	Correction
9.5.1	4	1.2-18-9.5.1	1.2-27 [Am-65] Deletes description of water supply and suppression system for the QA record storage area. This storage facility is no longer located in the Administration Building. Fire protection for QA record storage areas in the Administration Building Annex and the CP Engineering Building is provided as stated in FSAR Section 1A(B).	Correction
9.5.1	4	1.2-19-9.5.1	1.2-28 [Am-65] Discusses extinguishers that are adequately provided in the maintenance and administration buildings; however, they are not	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			all located in hose stations.	
9.5.1	4	1.2-20-9.5.1	1.2-28 [Am-65] Changes the technical description of the transformer suppression systems to reflect the as-built design. These systems are actuated automatically by the thermal detection system. This improves the response time of the suppression system.	Correction
9.5.1	4	1.2-21-9.5.1	1.2-28 [Am-65] Clarifies the description of the type of suppression system for the diesel generator day tanks, the supply independence, and the description of the water tight door to reflect plant conditions. The technical basis is not affected.	Editorial
9.5.1	4	1.2-22-9.5.1	1.2-28 [Am-65] Substitutes the hazard that is protected by a deluge system to reflect as-built plant conditions. The diesel generators are protected adequately by an automatic water sprinkler system.	Correction
9.5.1	4	1.2-25-9.5.1	1.2-29 [Am-65] a. Changes the description of the supply system of fire protection water for the atmospheric cleanup units outside containment. This change reflects plant as-built conditions. Adequate water supply is assured through hydraulic calculations. b. Changes the description of the components of the atmospheric cleanup unit water spray systems to reflect the plant as-built conditions. The technical basis is not affected.	Correction
9.5.1	4	1.2-26-9.5.1	1.2-29 [Am-65] Changes the technical description of the atmospheric cleanup unit suppression systems to reflect the as-built design. These systems are actuated automatically by the thermal detection system. This improves the response time of the suppression system.	Correction
9.5.1	4	1.2-27-9.5.1	1.2-29 and 1.29-30 [Am-65] Deletes details of Halon system since information did not accurately reflect the plant design. Halon system detailed technical description appears in Section 9.5.1.4.3.	Clarification
9.5.1	4	7.4-33-9.5.1	T7.4-2 [Am-60] (Sht. 3) Changes "alternate offsite source-amperes" to "frequency" for F-1EA2-L. The wrong functional description was given.	Correction
9.5.1	4	7.4-34-9.5.1	T7.4-2 [Am-60](sht 3) Changes "onsite source-amperes" to "alternate offsite source-amperes: for A-1EA2-2L. The wrong functional description was given.	Correction
9.5.1	4	9.5-001-9.5.1	9.5-1 [Am-66] Relocates the word "quickly" to clarify the statement. Changes description from "installed" to "in situ" combustibles for consistency	Editorial

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			with Fire Hazards Analysis. The technical basis is not affected.	
9.5.1	4	9.5-002-9.5.1	9.5-3 [Am-65] Substitutes a description of base curve used in determination of fire protection. Previous reference was to table derived from the base curve. Deletes reference to flashover, a term not descriptive of assumption used.	Clarification
9.5.1	4	9.5-003-9.5.1	9.5-4 [Am-65] The fire safe shutdown analysis establishes separation of fire safe shutdown systems or components which may be safety related or non-safety related. This change clarifies this fact.	Clarification
9.5.1	4	9.5-007-9.5.1	9.5-6 [Am-65] Corrects section number for Methodology to 9.5.1.2.3.	Editorial
9.5.1	4	9.5-009-9.5.1	9.5-6 [Am-66] Corrects "are" to "area".	Editorial
9.5.1	4	9.5-010-9.5.1	9.5-7 [Am-65] This amendment clarifies in Section 8.b. that automatic area wide suppression will be installed to protect redundant safe shutdown equipment within the same fire area when spatial seperation is greater than 20 feet when no intervening combustibles of fire hazards exist.	Clarification
9.5.1	4	9.5-011-9.5.1	9.5-7 [Am-66] Combines two sentences and deletes redundant wording.	Editorial
9.5.1	4	9.5-011-9.5.1	9.5-8 [Am-65] Automatic sprinkler suppression system densities are based on NFPA 13. The densities stipulated by the Copper Life Safety Handbook do not adequately reflect fire hazard configuration and anticipated transient combustibles which are considered in NFPA 13 hazard occupancies.	Update
9.5.1	4	9.5-012-9.5.1	9.5-7 [Am-65] The last paragraph on this page states that some areas will be provided with suppression when case (b) exists. This change clarifies that suppression will be provided unless justification of deviation to this condition is provided.	Clarification
9.5.1	4	9.5-012-9.5.1	9.5-8 [Am-65] Water spray is provided for concentrated cables in addition to where area wide sprinklers are required. This clarification ensures that water spray is not used as an alternative protection scheme for condition (b) unless adequately justified.	Clarification
9.5.1	4	9.5-013-9.5.1	9.5-8 [Am-65] This clarification to Paragraph 9 clarifies when one hour barriers are required.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.5.1	4	9.5-014-9.5.1	9.5-8 [Am-66] Changes description to refer to the Section of the FSAR which contains the detailed description of Cable Tray Suppression System design densities.	Correction
9.5.1	4	9.5-015-9.5.1	9.5-10 and 9.5-12 [Am-66] Clarifies the documentation of fire dectectors throughout the plant in the updated FHA format. The technical basis of the plant Fire Protection System is unaffected.	Clarification
9.5.1	4	9.5-016-9.5.1	9.5-11 [Am-65] Provides additional clarification on the type of events which initiate a trouble alarm and incorporates limitations for ground fault supervision.	Clarification
9.5.1	4	9.5-017-9.5.1	9.5-12 [Am-66] Adds references to figures to reflect new Fire Protection Water Supply design.	Clarification
9.5.1	4	9.5-019-9.5.1-M	9.5-13 [Am-66] Removes the number three from the description of the fire pumps. There are only two fire pumps installed in the service water intake structure as described in the preceding paragraph.	Clarification
9.5.1	4	9.5-020-9.5.1	9.5-13 [Am-66] Deletes reference to Factory Mutual Approval of the pumps and controllers. They have been listed by Underwriters Laboratory for fire protection service.	Correction
9.5.1	4	9.5-021-9.5.1	9.5-13 [Am-66] Adds a description that reflects the fact some three way hydrants have been used at CPSES. This enhances fire fighting capabilities.	Clarification
9.5.1	4	9.5-022-9.5.1	9.5-13 [Am-66] Clarifies the description of fire hydrants. The technical basis is unaffected.	Clarification
9.5.1	4	9.5-023-9.5.1	9.5-13 [Am-65] Removes reference to brackets which were not utilized in the as-built installation. These brackets as originally procured, are not necessary for storage or maintenance of accessories in the hose cabinets. Hose wrenches are stored and maintained inside cabinets not hydrants as stated.	Correction
9.5.1	4	9.5-024-9.5.1-P	9.5-14 [Am-65] Clarifies type of suppression systems utilized in the as-built installation (i.e., both sprinkler and water spray systems are	Clarification

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			employed). The technical basis is not affected.	
9.5.1	4	9.5-025-9.5.1	9.5-14 [Am-65] Adds a reference to the section of the FSAR that provides a complete technical description of the valve supervision program.	Editorial
9.5.1	4	9.5-026-9.5.1	9.5-14 [Am-65] Changes the reference for suppression system spray density criteria to the appropriate FSAR section. The technical basis is not affected.	Clarification
9.5.1	4	9.5-027-9.5.1	9.5-14 [Am-66] Deletes specific references to certain types of sprinkler heads. The reason for this change is that sprinkler heads are discussed in detail in paragraph 9.5.1.4(2) b.	Clarification
9.5.1	4	9.5-028-9.5.1	9.5-14 [Am-66] Deletes specific water spray densities which do not accurately reflect the plant water spray densities for cable trays. This information has been moved to Section 9.5.1.6.1.b.3.c. The technical basis of the plant Fire Protection System is unaffected.	Correction
9.5.1	4	9.5-029-9.5.1-P	9.5-15 [Am-66] Clarifies the description of fixed Fire Suppression Systems throughout the plant by deleting the word "deluge" from the term "Deluge Water Spray System". The technical basis of the plant Fire Protection System is unaffected.	Clarification
9.5.1	4	9.5-032-9.5.1	9.5-15 [Am-66] Deletes the description of atmospheric clean-up units valves which could be confused with Water Spray System valves. The technical basis of the plant Fire Protection System is unaffected.	Clarification
9.5.1	4	9.5-034-9.5.1	9.5-16 [Am-66] Adds the description of atmospheric cleanup units valves to distinguish from Water Spray System valves. The technical basis of the plant Fire Protection System is unaffected.	Clarification
9.5.1	4	9.5-035-9.5.1	9.5-16 [Am-66] Changes the description of the Atmospheric Cleanup Unit valve operating mode to reflect the as-built design.	Correction
9.5.1	4	9.5-037-9.5.1-P	9.5-16 and -17 [Am-66] Clarifies the description of fixed Fire Suppression Systems throughout the plant by deleting the word "deluge" from the term "Deluge Water Spray System". The technical basis of the plant Fire Protection System is unaffected.	Clarification
9.5.1	4	9.5-038-9.5.1	9.5-17 [Am-66] Relocates to FSAR Section 9.5.1.4.2.2.b5 the description of the Fuel Building Railroad Bay which is no longer protected by the type	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			of Suppression System discussed. The technical basis of the plant Fire Protection System is unaffected.	
9.5.1	4	9.5-039-9.5.1-P	9.5-18 [Am-65] Adds reference to plant areas protected by manual preaction sprinkler systems to clearly identify where such systems are provided in the as-built installation and to be consistent with other FSAR sections. This clarifies what type of suppression systems are utilized to protect respective plant hazards. The technical basis is not affected.	Addition
9.5.1	4	9.5-040-9.5.1	9.5-18 [Am-65] Deletes the reference to system spray density criteria. The appropriate FSAR section containing this information has been previously identified. The technical basis is not affected.	Clarification
9.5.1	4	9.5-042-9.5.1	9.5-19 [Am-65] Removes description of Halon local control panel locations to reflect as-built plant installation. The location described does not reflect a code requirement and may not provide the best design location for all Halon system installations at CPSES. The technical basis is not affected.	Correction
9.5.1	4	9.5-045-9.5.1	9.5 [Am-65] Adds eference to the control room and containment building standpipe and hose system being of the normally dry type design with manual charging required. The normally dry type design is required to preclude the effects of moderate energy line cracks. The technical basis is not affected.	Addition
9.5.1	4	9.5-046-9.5.1-N	9.5-20 [Am-56] Describes the use of the demineralized water transfer pump as the primary supply of water to the hose stations inside containment.	Update
9.5.1	4	9.5-048-9.5.1	9.5-22 [Am-65] Deletes reference to specific suppression systems supplied by yard loop. Specific reference is provided to these systems in Section 9.5.1.4.2. The technical basis is not affected.	Clarification
9.5.1	4	9.5-049-9.5.1	9.5-22 [Am-65] Changes description of water tight doors for the diesel generator compartment to reflect the fact that only one doorway provides protection for each compartment.	Correction
9.5.1	4	9.5-051-9.5.1	9.5-23 [Am-65] Changes description of water supply for ACU spray systems actuation to a description of water supplies for all suppression systems	Clarification

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			in plant safety-related areas. This maintains the consistency of this section in describing water supplies to all plant and auxiliary buildings. The technical basis is not affected.	
9.5.1	4	9.5-052-9.5.1	9.5-23 [Am-65] Clarifies the technical description of the Halon system. Additional detail is added and the system function is restated. The technical basis is not affected.	Clarification
9.5.1	4	9.5-053-9.5.1	9.5-24 [Am-65] Clarifies the description of the detection system to reflect the fact that indicating lamps are not provided for all detectors. This is not a requirement, and detection zones affected are thermal type devices covering smaller areas or of continuous strip type	Clarification
9.5.1	4	9.5-055-9.5.1	9.5-24 [Am-65] The fire safe shutdown analysis establishes separation of fire safe shutdown systems or components which may be safety related or non-safety related.	Correction
9.5.1	4	9.5-057-9.5.1	9.5-26 [Am-65] Removes description of steel decking since this type of construction is not used at CPSES.	Correction
9.5.1	4	9.5-058-9.5.1	9.5-26 [Am-66] Clarifies the description of the plant as-built conditions. This was made to avoid confusion regarding non-load bearing walls and ratings. The technical basis of the plant Fire Protection System is unaffected.	Clarification
9.5.1	4	9.5-059-9.5.1	9.5-26 [Am-66] Clarifies the description of the use of wood throughout the plant. The technical basis of the plant Fire Protection System is unaffected.	Clarification
9.5.1	4	9.5-062-9.5.1	9.5-28 [Am-66] Clarifies requirements for fire door ratings per the FHA. The technical basis of the Fire Protection System is unaffected.	Clarification
9.5.1	4	9.5-064-9.5.1	9.5-28 [Am-66] Clarifies the fire rating requirements for fire dampers. The technical basis is unaffected.	Clarification
9.5.1	4	9.5-066-9.5.1	9.5-30 [Am-66] Provides clarification of redundant equipment and raceway separation methods. The technical basis of the Fire Protection System is unaffected.	Clarification
9.5.1	4	9.5-067-9.5.1	9.5-30 [Am-65] Clarifies that steel covers used to protect vertical cable trays are installed as a general construction practice and extend a	Clarification

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			minimum of four (4) feet from the floor where utilized.	
9.5.1	4	9.5-068-9.5.1	9.5-34 thru 9.5-36 [Am-65] Updates organizational responsibilities to reflect Nuclear Operations Division reorganization.	Update
9.5.1	4	9.5-070-9.5.1	9.5-37 [Am-66] Adds "or equivalent" to clarify the requirements of the Society of Fire Protection Engineer to agree with regulatory guidance. The basis of the plant Fire protection System is unaffected.	Clarification
9.5.1	4	9.5-071-9.5.1-P	9.5-38 [Am-66] Clarifies the type of suppression system utilized in the as-built installation. The technical basis is not affected.	Clarification
9.5.1	4	9.5-072-9.5.1	9.5-40 [Am-65] Clarifies the technical description of the fire protection program for the fuel building provided prior to complete program implementation for the plant.	Clarification
9.5.1	4	9.5-073-9.5.1	9.5-40 [Am-66] Clarifies the description of the interim fire protection water supply. The technical basis is unaffected.	Clarification
9.5.1	4	9.5-074-9.5.1	9.5-46 [Am-65] Revises description of personnel responsible for notification of off site fire department assistance. Change reflects responsibilities as assigned at CPSES.	Correction
9.5.1	4	9.5-075-9.5.1	9.5-53 and -54 [Am-65] Incorporates a technical description of fire protection provided for redundant fire safe shutdown systems within each fire area located inside and outside of containment.	Clarification
9.5.1	4	9.5-077-9.5.1	9.5-55 [Am-66] Corrects an incorrect reference from "20" to "19". The technical basis is unaffected.	Editorial
9.5.1	4	9.5-078-9.5.1	9.5-56 [Am-65] Deletes technical description of metal roof deck construction. Roof structures for power block and other safety related structures are concrete slab construction.	Correction
9.5.1	4	9.5-079-9.5.1	9.5-57 [Am-65] Deletes references to deviations in noncombustible construction of the control room ceiling. Wood used to trim the ceiling has been removed as part of a redesign and reinstallation of the ceiling.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.5.1	4	9.5-081-9.5.1-P	9.5-58 [Am-66] Clarifies the type of suppression systems utilized in the as-built installation. Removes the words "water spray".	Clarification
9.5.1	4	9.5-083-9.5.1	9.5-60 [Am-65] Deletes Reference 20. Updates Reference 19. Reference 19 is replaced with a reference containing a complete package of all justifications for deviations. This reference is the Fire Protection Report -Appendix C -"Deviations". This also eliminates the need for Reference 20 throughout the FSAR where deviations are discussed.	Update
9.5.1	4	9.5-084-9.5.1	9.5-60 [Am-56] Incorrect amendment citation.	Editorial
9.5.1	4	9.5-086-9.5.1	9.5-63 [Am-65] Changes the description of the code compliance to reflect the requirements of Appendix A to Branch Technical Position ASCSB 9.5-1.	Clarification
9.5.1	4	9.5-087-9.5.1	9.5-63 [Am-66] Provides a more general description of materials used for construction of cable trays.	Clarification
9.5.1	4	9.5-088-9.5.1	9.5-64 [Am-66] Adds "the Containment and" to reflect the as-built locations provided with Cable Tray Fire Suppression Systems. The technical basis is unaffected.	Correction
9.5.1	4	9.5-089-9.5.1	9.5-64 [Am-66] Changes "cold shutdown" to "safe shutdown". This is to provide the correct shutdown reference with respect to cabling. The technical basis is unaffected.	Correction
9.5.1	4	9.5-090-9.5.1	9.5-64 [Am-66] Deletes reference for sprinkler head location criteria which is no longer valid. The technical basis is unaffected.	Correction
9.5.1	4	9.5-092-9.5.1-P	9.5-69 [Am-66] Clarifies the description of fixed Fire Suppression Systems throughout the plant by deleting the word "deluge" from the term "Deluge Water Spray System". The technical basis is unaffected.	Clarification
9.5.1	4	9.5-097-9.5.1	9.5-73 [Am-66] Deletes unnecessary portion since the fixed satellite receivers are not used for radio "talk-around".	Correction
9.5.1	4	9.5-098-9.5.1	9.5-74 [Am-65] Provides limitations to ground fault supervision.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-66)	Change Classification
9.5.1	4	9.5-099-9.5.1	9.5-74 [Am-66] Deletes the word "registered" to clarify the qualification of the plant Fire Protection Engineer. This agrees with FSAR Section 9.5.1.6.1.A.1.	Clarification
9.5.1	4	9.5-102-9.5.1-P	9.5-84 [Am-66] Clarifies the description of fixed Fire Suppression Systems. Throughout the plant by deleting the word "deluge" from the term "Deluge Water Spray System". The technical basis is unaffected.	Clarification
9.5.1	4	9.5-103-9.5.1	9.5-84 [Am-66] Clarifies the description of the cable tray suppression system design. The technical basis is unaffected.	Clarification
9.5.1	4	9.5-104-9.5.1	9.5-85 [Am-66] Clarifies the description of the as-built plant Fire Suppression Systems.	Clarification
9.5.1	4	9.5-106-9.5.1-P	9.5-90 [Am-66] Clarifies the description of fixed Fire Suppression Systems throughout the plant by deleting the word "deluge" from the term "Deluge Water Spray System". The technical basis is unaffected.	Clarification
9.5.1	4	9.5-107-9.5.1	9.5-92 [Am-66] Moves a section of the guideline to this location to provide for better continuity between the guideline and the plant fire protection programs. The technical basis is unaffected.	Editorial
9.5.1	4	9.5-108-9.5.1	9.5-92 [Am-66] Clarifies the description of portable fire extinguishers and hose station treatment during refueling. The technical basis is unaffected.	Clarification
9.5.1	4	9.5-110-9.5.1	9.5-93 and 9.5-94 [Am-66] Moves a section of the guideline to this location provide for better continuity between the guideline and the plant Fire Protection Program description. The technical basis is unaffected.	Editorial
9.5.1	4	9.5-111-9.5.1	9.5-98 [Am-65] Deletes Reference 20. Updates Reference 19. Reference 19 is replaced with a reference containing a complete package of all justifications for deviations.	Update
9.5.1	4	9.5-112-9.5.1	9.5-100 [Am-66] Clarifies the description of the plant halon systems by referring to FSAR Section F.3.a.1 which provides one location for the	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			description. The technical basis is unaffected.	
9.5.1	4	9.5-113-9.5.1	9.5-101 [Am-66] Clarifies that guideline F.4 is not applicable because the plant computers are not safety-related.	Clarification
9.5.1	4	9.5-114-9.5.1	9.5-102 [Am-66] Clarifies the description of which equipment and what type of detection is provided for the equipment. Adds reference to engineering evaluations.	Clarification
9.5.1	4	9.5-115-9.5.1-P	9.5-104 [Am-66] Clarifies the description of fixed Fire Suppression Systems throughout the plant by deleting the word "deluge" from the term "Deluge Water Spray System". The technical basis is unaffected.	Clarification
9.5.1	4	9.5-116-9.5.1	9.5-106 [Am-65] Deletes reference to deviation in Section 9.5.1.6.2 since the FHA and underlying calculations demonstrate compliance with this section.	Editorial
9.5.1	4	9.5-120-9.5.1	9.5-112 [Am-65] Deletes reference to Section 9.5.1.6.2 from G.3 since the CPSES design is described in the text on this page.	Editorial
9.5.1	4	9.5-125-9.5.1	9.5-117 [Am-65] Clarifies that elevator towers outside containment have a two-hour fire resistance rating. Two two-hour fire barriers would have to be breached to have an affect on safe shutdown.	Clarification
9.5.1	4	9.5-128-9.5.1	9.5-119 [Am-65] Deletes Reference 20. Updates Reference 19. Reference 19 is replaced with a reference containing a complete package of all justifications for deviations.	Update
9.5.1	4	9.5-129-9.5.1	9.5-121 [Am-65] Changed capacity of the day tank to reflect as-built plant conditions. The technical basis is not affected.	Correction
9.5.1	4	9.5-168-9.5.1	9.5-164 [Am-66] Clarifies that the referenced portion of the Branch Technical position is Appendix "A" and corrects the title and date of the referenced document.	Clarification
9.5.1	4	9.5-173-9.5.1	T9.5-1 thru T9.5-10 [Am-63] Revision date and/or amendment number added to each of these sheets.	Editorial
9.5.1	4	9.5-178-9.5.1	T9.5-16 [Am-65] Changes made on page 9.5-8 clearly identify where justificaion for deviations from area wide suppression and NFPA 13 and 15	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			are located; therefore, this table is no longer necessary.	
9.5.1	4	9.5-178-9.5.1	T9.5-16 [Am-65] Changes made on page 9.5-8 clearly identify where justification for deviations from area wide suppression and NFPA 13 and 15 are located; therefore, this table is no longer necessary.	Clarification
9.5.1	4	9.5-180-9.5.1	F9.5-43 thru 9.5-48 [Am-65] Replaces existing figures with latest drawing revisions.	Correction
9.5.1	4	9.5-181-9.5.1	F9.5-43 [Am-66] Changes the title of the Figure to reflect the status of the illustrated water supply system. This system is now the interim fire protection water supply.	Correction
9.5.1	4	9.5-182-9.5.1	F9.5-43 [Am-68] (Sheet 1) Clarifies the location of the information regarding the Fire Protection Water Supply System. These changes are being made to accomodate the structure of the new computer aided design drawings provided in this amendment. The figures in this amendment have been completely regenerated and therefore, interface points and reference drawings (figures) have been modified.	Clarification
9.5.1	4	9.5-184-9.5.1	F9.5-43 [Am-68] (Sheet 1) Adds information regarding the Fire Protection Water Supply System. This change is made to reflect current design conditions. The design has been revised in this amendment to include information pertaining to additional required equipment (strainer and flushing valve) provided for system 334.791-5021.	Addition
9.5.1	4	9.5-185-9.5.1	F9.5-44 thru 9.5-47 [Am-66] Title blocks were redrawn and figures were reissued to enhance legibility.	Clarification
9.5.1	4	9.5-186-9.5.1	F9.5-44 [Am-68] (Sheet 1) Clarifies the location of information regarding the Fire Protection Water Supply System. These changes are being made to accommodate the structure of the new computer aided design drawings provided in this amendment. The figures attached in this amendment have completely regenerated and therefore, interface points and reference drawings (figures) have changed.	Clarification
9.5.1	4	9.5-187-9.5.1	F9.5-44 [Am-68] (Sheet 1) Corrects the technical depiction of the Fire Protection Water Supply System. These corrections are made to replace erroneous information previously contained in the drawing. Included in these revisions are corrected typos, corrected drafting errors, and the inclusion of omitted information.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.5.1	4	9.5-189-9.5.1	F9.5-45 [Am-68] (Sheet 1) Clarifies the location of the information regarding the Fire Protection Water Supply System. These changes are being made to accommodate the structure of the computer aided design drawings provided in this amendment. Figures 9.5-45 sheet 1 and sheet 2 attached in this amendment have been completely regenerated from a single sheet and therefore, interface points and reference drawings (figures) have been modified.	Clarification
9.5.1	4	9.5-190-9.5.1	F9.5-45 [Am-68] (Sheet 1) Clarifies the design of Fire Protection Water Supply System Piping. This change is made to reflect current design conditions. The documentaton of design has been revised in this amendment to include information as indicated on a reissuance of the system installation drawings. Clarifies the design of Fire Protection Water Supply System. This correction is made to replace erroneous information previously contained in the drawing. This revision relocates a line number designation to the proper fire protection line.	Correction
9.5.1	4	9.5-191-9.5.1	F9.5-45 [Am-68] (Sheet 1) Adds information regarding the Fire Protection Water Supply System. This change is made to reflect current design conditions. The design has been revised in this amendment to include information pertaining to the status of shutoff valves (locked closed vs. locked open) provided for the Cable Spreading Room Hose Station Systems.	Addition
9.5.1	4	9.5-192-9.5.1	F9.5-45 [Am-68] (Sheet 2) Clarifies the location of information regarding the Fire Protection Water Supply System. These changes are being made to accommodate the structure of the new computer aided design drawings provided in this amendment. Figures 9.5-45 sheet 1 and sheet 2 attached in this amendment have been completely regenerated from a single sheet and therefore, interface points and reference drawings (figures) have been modified.	Clarification
9.5.1	4	9.5-193-9.5.1	F9.5-45 [Am-68] (Sheet 2) Clarifies the design of Fire Protection Water Supply System Piping. This change is made to reflect current design conditions. The documentation of design has been revised in this amendment to include information as indicated on a reissuance of the system installation drawings.	Clarification
9.5.1	4	9.5-194-9.5.1	F9.5-46 [Am-68] (Sheet 1) Clarifies the location of the information regarding the Fire Protection Water Supply System. The changes are being made to	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			accommodate the structure of the new computer aided design drawings provided in this amendment. Figures 9.5-46 sheet 1 and sheet 2 attached in this amendment have been completely regenerated from a single sheet and therefore, interface points and reference drawings (figures) have been modified.	
9.5.1	4	9.5-195-9.5.1	F9.5-46 [Am-68] (Sheet 1) Clarifies the design of Fire Protection Water Supply System Piping. This change is made to reflect current design conditions. The documentation of design has been revised in this amendment to include information as indicated on a reissuance of the system installation drawings.	Clarification
9.5.1	4	9.5-198-9.5.1	F9.5-46 [Am-68] (Sht. 2) Clarifies the location of the information regarding the Fire Protection Water Supply System. The changes are being made to accommodate the structure of the new computer aided design drawings provided in this Amendment. Figure 9.5-46, Sheet 1 and Sheet 2, attached to this amendment have been completely regenerated from a single sheet and therefore, interface points and reference drawings (figures) have been modified.	Clarification
9.5.1	4	9.5-200-9.5.1	F9.5-46 [Am-68] (Sheet 2) Adds information regarding the Fire Protection Water Supply System. The change is made to reflect current design conditions. This design has been revised in this amendment to include information pertaining to the addition of a locked open header valve in the Diesel Generator Building.	Addition
9.5.1	4	9.5-201-9.5.1	F9.5-47 [Am-68] (Sheet 1) Clarifies the location of the information regarding the Fire Protection Water Supply System. These changes are being made to accommodate the structure of the new computer aided drawings provided in this amendment. Figures 9.5-47 sheet 1 and sheet 2 attached in this amendment have been completely regenerated from a single sheet and therefore, interface points and reference drawings (figures) have been modified.	Clarification
9.5.1	4	9.5-202-9.5.1	F9.5-47 [Am-68] (Sheet 2) Clarifies the location of the installation regarding the Fire Protection Water Supply System. These changes are being made to accommodate the structure of the new computer aided design drawings provided in this amendment. Figure 9.5-47 sheet 1 and 2 attached in this amendment have been completely regenerated from a single sheet and therefore, interface points and reference drawings (figures) have been modified.	Clarification
9.5.1	4	9.5-203-9.5.1	F9.5-47 [Am-68] (Sheet 2) Corrects the technical depiction of the Fire Protection Water Supply System. These corrections are made to replace erroneous	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			information previously contained in the drawing. Included in these revisions are corrected drafting errors and deletion of incorrect information.	
9.5.1	4	9.5-206-9.5.1	F9.5-48 [Am-68] (Sheet 1) Clarifies the location of the information regarding the Fire Protection Water Supply System. These changes are being made to accommodate the structure of the new computer aided design drawings provided in this amendment. The figures attached in this amendment have been completely regenerated and therefore, interface points and reference drawings (figures) have been modified.	Clarification
9.5.1	4	9.5-207-9.5.1	F9.5-48 [Am-68] (Sheet 1) Corrects the technical depiction of the Fire Protection Water Supply System. This correction is made to replace erroneous information previously contained in the drawing.	Correction
9.5.1	4	9.5-208-9.5.1	F9.5-48 [Am-68] (Sheet 1) Adds information regarding the Fire Protection Water Supply System. This change is made to reflect current design conditions. The design has been revised in this amendment to include information pertaining to the modification of the type of valve to be used for local leak rate testing in the Unit 1 Containment Building.	Addition
9.5.1	4	9.5-210-9.5.1	F9.5-61 and 9.5-62 [Am-66] Adds Figures to illustrate details of the fire protection water supply design to supplemant the description of the new system provided.	Addition
9.5.1	4	9.5-211-9.5.1	F9.5-61 [Am-68] (Sheet 1) Regenerated the complete figure using computer aided design techniques. Interface points and reference drawings have changed to accommodate the new structure of the figures. The technical basis is not affected. Relocated the water supply to Alternate Access Point Guard House to reflect the current design. The technical basis is not affected.	Correction
9.5.1	4	9.5-212-9.5.1	F9.5-61 [Am-68] (Sheet 1) Added the connection of the temporary treated water supply to the Fire Protection System Main Loop. This supply is an interim solution to gain control of corrosion problems pending availability of the Fire Protection Treated Water Suppiy System.	Addition
9.5.1	4	9.5-214-9.5.1	F9.5-61 [Am-68] (Sheet 1) Added valve tag numbers and a hydrant detail to reflect the current plant design.	Addition
9.5.1	4	9.5-215-9.5.1	F9.5-62 [Am-68] (Sheet 1) Deleted instrumentation details that are not part of piping flow diagrams. Revised all instrument tag numbers to conform to CPSES	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			tag number conventions. Regenerated the complete figure using computer aided design techniques. Reference drawings have changed to accommodate the new structure of the figures.	
9.5.1	4	9.5-216-9.5.1	F9.5-62 [Am-68] (Sheet 1) Added vent valves, line numbers and revised line locations to reflect current plant design. Deleted quick disconnect design from sump pump out connection.	Correction
9.5.1	4	9.5-217-9.5.1	F9.5-62 [Am-68] (Sheet 1) Deleted reference to tank volumes and clarified description of levels shown. Tank volume information is contained in Section 9.5.1.6.1.E.2.d.	Editorial
9.5.1	4	9.5-219-9.5.1	010-47 [Am-66] The inclusion of "Fire Safe" identifies the type of shutdown path being analyzed.	Clarification
9.5.1	4	9.5-221-9.5.1	010-47 [Am-66] Deletes the detailed descriptions of the requirements for fire rated barriers in this section. This information is discussed in depth in Section 9.5.1.6,D.1.j of the FSAR which correctly reflects how rated fire barriers are employed.	Correction
9.5.1	4	9.5-222-9.5.1	010-48 [Am-65] Added references to deviations in Section 9.5.1.	Editorial
9.5.1	4	9.5-224-9.5.1	010-50 [Am-66] Clarifies the requirements for coordination and more clearly specifies the circuits of concern. (See also 9.5-223-9.5.1)	Clarification
9.5.1	4	9.5-227-9.5.1	010-53 [Am-66] Adds the word "system" after "high/low pressure". Adds the word "potential" before the word "spurious" to more properly describe the type of problem being considered.	Clarification
9.5.1	4	9.5-228-9.5.1	010-53 [Am-66] Changes the words "actions" to "actuations" to distinguish this type of problem from operator action which is addressed separately.	Clarification
9.5.1	4	9.5-229-9.5.1	010-53 [Am-66] Changes the word "designated" to "required" and adds the word "fire" to describe the type of safe shutdown being considered. This does not change the design criteria or basis.	Correction
9.5.1	4	9.5-230-9.5.1	010-54 [Am-66] Changes the description of the redundant train to "fire safe shutdown", which only considers equipment required for fire and	Clarification

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			is a subset of the redundant safety trains.	
9.5.1	4	9.5-233-9.5.1	010-55 [Am-65] Changed reference to design documents containing information requested by the NRC. The Fire Safe Shutdown analysis has been modified to meet current procedural requirements and incorporate plant modifications.	Correction
9.5.1	4	9.5-234-9.5.1	010-62 [Am-66] Changes "hot shutdown" to "hot standby". This change was made in order to consistently reflect and correctly use these definitions as used in both the Fire Safe Shutdown Analysis and the Technical Specifications.	Correction
9.5.1	4	9.5-235-9.5.1	010-63 [Am-65] Clarifies that Operator actions are required for fire scenarios other than control room and cable spread room, but the required actions are enveloped by these scenarios.	Clarification
9.5.1	4	9.5-236-9.5.1	010-63 [Am-65] The Fire Protection Program Review has been revised and is now titled "Fire Safe Shutdown Analysis".	Correction
9.5.1	4	9.5-237-9.5.1	010-63 [Am-66] Deletes reference to Table 4.1-4 from the superseded FPPR by the Fire Protection Report, which indicates that this is available in other site documents.	Update
9.5.1	4	9.5-238-9.5.1	010-64 [Am-66] Deletes all references to tables in the FPPR, because the FPPR has been superseded by the FPR and this information is now available in other site documents.	Editorial
9.5.1	4	9.5-241-9.5.1	040.108 p.040-144 [Am-65] Clarifies that the safe shutdown analysis discusses equipment not meeting separation requirement in FSAR Section 9.5.1.6.1 for guideline D.1.A.	Clarification
9.5.1	4	13.3-8-9.5.1	13.3-2 thru -4 [Am-65] Changes to reflect the current TU Electric organization and organizational names.	Update
9.5.1	4	13.3-9-9.5.1	13.3-3 [Am-56] Clarifies Fire Protection Supervisor's responsibilities on coordination of fire drills.	Clarification
9.5.1	4	13.3-10-9.5.1	13.3-12 and -13 [Am-65] Changes to reflect the Current TU Electric organization and organizational names. Deletes reference to "asbestos".	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.5.2	4	13.3-11-9.5.1	441-11 [Am-66] Corrects FSAR subsection references.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.5.2	2	9.5-136-9.5.2	9.5-124 [Am-66] Deletes reference to the use of the Sound Powered Telephone System for emergency communication.	Correction
9.5.2	2	9.5-137-9.5.2	9.5-125 [Am-66] Deletes description of Sound Powered Telephone System. Sound Powered Telephone System was not chosen as the primary communications system due to system limitations. This system is not used as the primary communication system for hot or cold shutdown per TU abnormal conditions procedures.	Correction
9.5.2	2	9.5-146-9.5.2	9.5-129 [Am-66] Removes reference to sound powered telephone system and include reference to portable radio system. Portable radios are now the primary communication system used during emergency conditions.	Revision
9.5.2	3	9.5-131-9.5.2	9.5-122 [Am-66] Makes additions to paragraph 1 as shown for technical accuracy. Provides a thorough listing of the site emergency communication systems.	Addition
9.5.2	3	9.5-142-9.5.2	9.5-127 [Am-57] Describes evacuation alarm system warning light provision.	Addition
9.5.2	4	1.2-6-9.5.2	1.2-24 & 1.2-25 [Am-65] Deletes description of plant paging system in relation to detection system. Plant paging system is operated manually per procedures.	Correction
9.5.2	4	9.5-132-9.5.2	9.5-122 [Am-66] Deletes portion of paragraph 2 as this is described in section 9.5.2.2.3.	Clarification
9.5.2	4	9.5-133-9.5.2	9.5-122 [Am-66] Arranges paragraph 3 as shown. This is an editorial change for clarity with no technical impact.	Clarification
9.5.2	4	9.5-134-9.5.2	9.5-122 [Am-66] Changes "powered" to "driven" for consistency with the GAI-Tronics Vendor manual and for technical accuracy.	Clarification
9.5.2	4	9.5-135-9.5.2	9.5-124 [Am-66] Makes Editorial changes by replacing "ESF" with "Class 1E" and removing "four" since more than four predetermined telephone stations remain operable during a loss of normal AC power. Removes reference to 28 trunk lines since the PABX is capable of carrying more than 28 trunk lines.	Clarification
9.5.2	4	9.5-138-9.5.2	9.5-125 [Am-66] Deletes description under 9.5.2.2.4 and inserts the revised description. The revised description provides a more thorough	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			description of the intraplant portable radio communication system.	
9.5.2	4	9.5-139-9.5.2	9.5-126 [Am-66] Changes heading for clarification. (Relocate words "Plant-to-Offsite").	Editorial
9.5.2	4	9.5-140-9.5.2	9.5-126 and 9.5-127 [Am-66] Makes addition of "VHF" for clarification. This distinguishes the intra plant radio frequencies with lower frequencies for offsite communication. Deletes Section 9.5.2.2.7 and inserts the revised description. The revised description provides a a more accurate and thorough description of Plant-to-Offsite emergency telephone systems.	Clarification
9.5.2	4	9.5-141-9.5.2	9.5-127 [Am-66] Replaces "multi frequency audio oscillator" with "multi-tone generator" to provide consistency with the vendor manual and a more accurate description.	Clarification
9.5.2	4	9.5-143-9.5.2	9.5-127 [Am-66] Adds reference to rotating beam lights to clarify the type of visual indication provided with evacuation alarm.	Clarification
9.5.2	4	9.5-144-9.5.2	9.5-128 [Am-66] Replaces "Multifrequency audio oscillator" with "multi-tone generator" to provide consistency with the vendor manual. Remove reference to ESF bus and unique alarm signal for description accuracy.	Clarification
9.5.2	4	9.5-145-9.5.2	9.5-128 and 9.5-129 [Am-66] Inserts reference to page-party/public address system as backup to the portable radio system for use by plant operators during hot shutdown for technical accuracy. This revised description provides a more comprehensive description of the use of the PABX telephone and the-party/public address systems.	Clarification
9.5.2	4	9.5-147-9.5.2	9.5-129 [Am-66] Revises description of intraplant portable radio transmitter receiver system to provide how system is used. The portable radio system is used for communication among fire brigade members and plant operator during use of the hot shutdown panel.	Clarification

SSR	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.5.3	2	1.3-2-9.5.3	T1.3-2 [Am-66](Sht. 22) Re-classifies the AC Essential Lighting System and DC Emergency Lighting System as non-Class 1E (See Justification for page 1A(B)-45).	Revision
9.5.3	2	8.3-128-9.5.3-C	8.3-1, 52, 53, 64, 78, T8.1-1 (Sht. 3) [Am-66] The non-Class 1E AC essential lighting circuits are isolated from Class 1E power sources with two separate Class 1E breakers (i.e., main breaker and feeder breaker within the Class 1E lighting distribution panel) connected in series. These breakers are coordinated with their supply breaker and will be tested periodically to ensure that coordination is maintained. The non-Class 1E AC essential lighting circuits use interconnecting cable (i.e., from the distribution panel feeder breaker to the lighting load) routed in conduit. The routing of the circuits in conduit ensures the physical and electrical independence from Class 1E circuits beyond the isolation breaker. The non-Class 1E DC emergency lighting circuits connected to dedicated batteries are routed in conduit. The routing of the circuits in conduit ensures physical and electrical independence from Class 1E circuits. The lighting circuits routed in conduit meet the separation criteria of FSAR Section 8.3.1.4. Note: Both AC Essential and DC Emergency Lighting Systems are reviewed in SER 9.5.3 for fire protection considerations. Both AC Essential and DC Emergency Lighting Systems would be reviewed in SER 8.4.4 for cable separation. AC Essential Lighting System only would be reviewed in SER 8.4.5 for non-1E loads on 1E power supplies. (See 1A(B) R.G. 1.75).	Revision
9.5.3	2	9.5-149-9.5.3-O	9.5-133 [Am-66] The AC Essential Lighting System and DC Emergency Lighting System are reclassified as non-Class 1E. The DC Emergency Lighting System will be powered off dedicated non-Class 1E batteries. Fixed fluorescent emergency lighting units will be used in certain applications, because of their superior performance. These fluorescent units are specifically permitted by Regulatory Guide 1.120, paragraph 4.e (1).	Revision
9.5.3	2	9.5-151-9.5.3-O	9.5-136 [Am-66] The AC Essential Lighting System and DC Emergency Lighting System are reclassified as non-Class 1E. Lighting is not a safety related function. The AC Essential Lighting System is fed from safety related buses. It is isolated from the Class 1E power sources with two separate Class 1E breakers connected in series. These breakers are coordinated with their supply breaker and will be tested periodically. The circuits are routed in conduit to provide	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			physical and electrical independence beyond the isolation breaker. The conduit meets the separation criteria given in FSAR Section 8.3.1.4. The DC Emergency Lighting, which was previously fed from Class 1E station batteries, will be fed from dedicated non-Class 1E circuits. These circuits are also routed in conduit to provide physical and electrical independence from Class 1E circuits. The conduit meets the separation criteria given in FSAR Section 8.3.1.4. (See also 8.1-010-9.5.3-O).	
9.5.3	2	9.5-154-9.5.3-O	9.5-138 [Am-66] The AC Essential Lighting System and DC Emergency Lighting System are reclassified as non-Class 1E. The DC Emergency Lighting System will be powered off dedicated non-Class 1E Batteries.	Revision
9.5.3	2	17A-053-9.5.3	T17A-1 [Am-66] (Shts. 32 and 33) The AC Essential Lighting System and DC Emergency Lighting System are reclassified as non-Class 1E and deleted from Table 17A-1. This reclassification of components is not a programmatic change in the quality control program. The reduction in commitment for this equipment is acceptable since lighting is not a safety related function and adequate separation from the Class 1E systems will be provided by the following: 1. The AC Essential Lighting System is isolated from the Class 1E power sources with two separate, coordinated Class 1E breakers connected in series. These breakers are coordinated with their supply breaker and will be tested periodically. The circuits are routed in conduit to provide physical and electrical independence beyond the isolation breaker. The conduit meets the separation criteria given in Section 8.3.1.4. 2. The DC Emergency Lighting, which was previously fed from Class 1E station batteries, will be fed from dedicated non-Class 1E batteries. These circuits are also routed in conduit to provide physical and electrical independence from Class 1E circuits. The conduit meets the separation criteria given in Section 8.3.1.4.	Revision
9.5.3	3	9.5-150-9.5.3	9.5-134 [Am-66] Adds information concerning the illumination level provided by the DC Emergency Lighting System.	Addition
9.5.3	3	9.5-152-9.5.3-O	9.5-136 [Am-66] The AC Essential Lighting System and DC Emergency Lighting System are reclassified as non-Class 1E. Detailed discussion of the installation of the raceway is no longer required. Fixed fluorescent emergency lighting units will be used in certain applications. (See also 9.5-151-9.5.3-O).	Revision
9.5.3	3	9.5-153-9.5.3-O	9.5-137 [Am-66] The AC Essential Lighting System and DC Emergency Lighting System are reclassified as non-Class 1E. Detailed discussion of the	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			installation of the raceway is no longer required. (See also 9.5-151-9.5.3-3).	
9.5.3	3	9.5-169-9.5.3	9.5-165 [Am-66] Changes the reference to the IES Lighting Handbook from 1972 to the 1981 edition.	Update
9.5.3	3	9.5-172-9.5.3	9.5-167 [Am-66] Adds NUREG-0700 to the list of references.	Addition
9.5.3	4	1AB-14-9.5.3	1A(B)-43 [Am-60] Changes "comment" to "comments".	Editorial
9.5.3	4	8.1-6-9.5.3	8.1-9 [Am-68] Consistent with Amendment 66, corrects the version of the IES Lighting Handbook in use at CPSES is the Application Volume, 1981. (See also evaluation number 9.5-169-9.5.3).	Correction
9.5.3	4	9.5-148-9.5.3	9.5-132 & 9.5-133 [Am-66] Adds information and references concerning the illumination level provided by the AC Essential Lighting System.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.5.4	2	1AB-42-9.5.4	1A(B)-72 and -73 [Am-66] Adds exceptions to paragraph C.1.b, C.2.b and C.2.c to NRC Regulatory Guide 1.137. Clarifies the exceptions to 6.1 and 7.5 of ANSI N-175 and co-relates with sections C.1.d and C.1.g of NRC Regulatory Guide 1.137 to the numbered items The changes to the numbered items are as follows: 1. Venting components are not designed to safety class 3 (as identified in paragraph 7.1 of ANSI N195-1976), however they are seismically supported and the vent paths are missile protected. 2 and 3. Editorial change. 4. ASTM D975-74 is updated ASTM D975-81 which updates the fuel oil monitoring program to current standards. The revised testing will test the parameters which indicate degradation or contamination of fuel during transit. The tests are based on a surveillance program report developed by Kurt H. Strauss and docketed earlier for McGuire Nuclear Plant (Docket Nos. 50-369 and 50-370) by letter to Mr. H. R. Denton from Mr. H. B. Tucker dated November 18, 1983. 5. ASTM D270-65 is updated to ASTM D4057-81 in 1984 which provides the updated ASTM method for sampling of D. G. fuel oil and is acceptable alternate standard in the industry.	Revision
9.5.4	2	9.5-157-9.5.4	9.5-141 [Am-66] This change revises the description due to replacement of simplex strainers with duplex strainers. This update in filter removal capability eliminates the clogging of filter and improves the availability of quality diesel fuel oil supply to the diesel generators. Deletes the reference to motor driven engine pump which is not used for emergency mode of operation.	Revision
9.5.4	2	9.5-159-9.5.4	9.5-142 [Am-66] This change revises the fuel oil day tank capacity from 4 1/2 hours to useable capacity of 3 hours of continuous operation of diesel generators at rated 100% load. This exceeds the requirements of NRC Regulatory Guide 1.137 and ANSI N195 (66 minutes of continuous operation). Deletes the tank capacity in gallons as it varies with the density of fuel oil. SER Section 9.5.4.2, page 9-39, second paragraph indicates "day tank capacity 2160 gallons sufficient to power the diesel engine at rated load for 4 1/2 hour". By this FSAR-CR, SER needs to be revised to say day tank usuable capacity sufficient to power the diesel engine at rated load for 3 hours.	Revision
9.5.4	2	9.5-160-9.5.4	9.5-146 [Am-66] Deletes the diesel generator fuel oil booster pump (motor driven), which is not available during emergency operation of the diesel generators.	Correction
9.5.4	3	9.5-166-9.5.4	9.5-156 [Am-66] Changes the "vacuum pumps" to "centrifugal blowers" for diesel generators crankcase ventilation. This change provides positive	Correction

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			means of forced ventilation through the diesel generator crankcase and reflects the as-built conditions.	
9.5.4	3	9.5-243-9.5.4	040-168 [Am-66] Changes are as follows: 1) ASTM D975-74 change to ASTM D975-81 (see item 4 on page 1AB-74) 2) ASTM D270-65 change to ASTM D4057-81 (see item 5 on page 1AB-74)	Revision
9.5.4	3	9.5-244-9.5.4	040-169 and 040-170 [Am-66] 1) Fuel oil will be sampled before transfer to storage tank and tested before 30 days (see item 4 on page 1A(B) -74, and 2) delete viscosity test as it is covered under ASTM D975-1981 (See item 4 on page 1A(B)-74).	Revision
9.5.4	4	9.5-155-9.5.4	9.5-139 [Am-66] Deletes the position exceptions to on NRC Regulatory Guide 1.137, as these are discussed previously in Section 1A(B) (Evaluation number 1AB-37-9.5.4).	Correction
9.5.4	4	9.5-156-9.5.4	9.5-140 [Am-66] Clarifies the system description for filling, venting, draining and removing condensate from storage tanks, as per as-built conditions and in compliance with NRC Regulatory Guide 1.137 and ANSI N195.	Clarification
9.5.4	4	9.5-158-9.5.4	9.5-142 [Am-66] Nomenclature change "fuel-oil" for "F.O.".	Editorial
9.5.4	4	9.5-174-9.5.4	T9.5-11 [Am-66] Typographical error, changes transfer pump "2a" to "1b".	Editorial
9.5.4	4	9.5-175-9.5.4	T9.5-11 [Am-66] Deletes "Remedial Action" column, as it is covered by "Effects on System" column.	Correction
9.5.4	4	9.5-209-9.5.4	F9.5-52 [Am-67] Revises the figure to add the following changes: 1. Adds note for removal of strainer element from Y-strainer. 2. Adds duplex strainer as per requirements of ANSI N-195. 3. Adds day tank vent pipe vacuum breakers which is located in missile protected area and seismically supported. 4. Adds miscellaneous technical and editorial changes to the figure to make consistent with vendor drawings and isometric drawings.	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.5.5	2	9.5-162-9.5.5-Q	9.5-148 [Am-66] Deletes the reference to the motor-driven jacket water pump, which is not available during emergency operation of the diesel generators. SER Section 9.5.5, page 9-40, paragraph 6 indicates, "motor driven auxiliary pump for jacket water is available for continuous water circulation, in the event of engine-driven pump fail." By this FSAR-CR, "SER needs to be revised to indicate that motor driven auxiliary jacket water pump is not available during emergency conditions. However, in this scenario, backup diesel generator set is available.	Correction
9.5.5	3	9.5-176-9.5.5-Q	T9.5-12 [Am-66] Deletes reference to motor driven auxiliary jacket water pump, which is not available during emergency operation of the diesel generators.	Correction
9.5.5	4	9.5-161-9.5.5	9.5-147 [Am-65] Table on "Jacket Water Cooler Design Parameters" had been renumbered to Table 9.5-18 in a previous amendment of the FSAR and the text was not corrected at the same time.	Editorial
9.5.5	4	9.5-163-9.5.5-Q	9.5-149 [Am-66] Deletes from the instrument list the on-off control for the motor-driven jacket water pump, which is not available during emergency operation of the diesel generators.	Correction
9.5.5	4	9.5-164-9.5.5	9.5-150 [Am-66] Corrects the spelling of "backup".	Editorial
9.5.5	4	9.5-179-9.5.5	T9.5-18 [Am-56] This table was numbered 9.5-16. The data contained has remained the same since Amendment 6, May 31, 1979.	Editorial
9.5.5	4	9.5-179-9.5.5	T9.5-18 [Am-56] This table was numbered 9.5-16. The data contained has remained the same since Amendment6, May 31, 1979.	Editorial
9.5.5	4	9.5-242-9.5.5	040-35 [Am-66] Adds reference to the response to Q040.112. Thus the response to Q040.24 is contained in the Revised Section 9.5.5.2 and in R040.112.	Addition

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9.5.7	2	9.5-165-9.5.7-R	9.5-154 and 9.5-155 [Am-66] Deletes the reference to motor driven lube oil pump, which is not available during emergency operation of the diesel generators. Deletes from the instrument list the on-off control for the motor driven lube oil pump, which is not available during emergency operation of the diesel generators. Adjust the following sequence numbers. SER section 9.5.7, page 9-43, paragraph 2 indicates, the system has a motor-driven lube oil pump available in the event of failure of engine driven pump. By this FSAR-CR SER needs to be revised to indicate that the motor-driven lube oil pump is not available as a backup to engine driven lube oil pump. However, in this scenario, backup diesel generator jet pump is available.	Correction
9.5.7	2	9.5-177-9.5.7-R	T9.5-14 [Am-66] Deletes reference to auxiliary lube oil pump, which is not available during emergency operation of the diesel generators.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
9.5.8	4	9.5-167-9.5.8	9.5-162 [Am-66] Typographical error, changes Q040.178 to 040.128.	Editorial

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SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification

Total Records Processed : 554

Chapter 09
EVALUATIONS SUMMARY BY ALPHA DESIGNATOR

ALPHA	GROUPS 1	2	3	4	TOTAL
	2	49	138	278	467
A		1		1	2
B		1	2		3
C		1	2		3
D		1	2		3
E		1	5		6
F		1	6		7
G		2		2	4
H			3		3
I			4		4
J		1	3		4
K		2	2	1	5
L			3	1	4
M		2	2	1	5
N			2	1	3
O		5	2		7
P				10	10
Q		1	1	1	3
R		1	1		2
S		1	3		4
T		1	2		3
U		1	1		2
Totals :	2	72	184	296	554
Factored Totals :	2	65	156	286	509

TU Electric FSAR Change Review Information

EVALUATIONS SUMMARY BY GROUP
Chapter : 09

SER	GROUPS 1	2	3	4	TOTAL
09.01.0				1	1
09.01.1		1			1
09.01.2		2		3	5
09.01.3	1	2	11	5	19
09.01.4		1	3	5	9
09.02.0				2	2
09.02.1		2	8	6	16
09.02.2		5	17	6	28
09.02.3			10	12	22
09.02.4			6		6
09.02.5		1	6	1	8
09.02.6		1			1
09.03.1		1	6	1	8
09.03.2		1	8	4	13
09.03.3			5	4	9
09.03.4			6	2	8

TU Electric FSAR Change Review Information

EVALUATIONS SUMMARY BY GROUP
Chapter : 09

SER	GROUPS 1	2	3	4	TOTAL
09.04.0		3	6	2	11
09.04.1	1	2	1	8	12
09.04.2		3	4	15	22
09.04.3		2	14	14	30
09.04.4		3	7	8	18
09.04.5		3	7	4	14
09.04.6		1	3		4
09.05.1		23	44	164	231
09.05.2		3	2	13	18
09.05.3		6	5	3	14
09.05.4		4	3	6	13
09.05.5		1	1	6	8
09.05.7		1	1		2
09.05.8				1	1

TU Electric

FSAR Change Review Information

EVALUATIONS SUMMARY BY GROUP

Chapter : 09

SER	GROUPS 1	2	3	4	TOTAL
TOTAL :	2	72	184	296	554

TU Electric FSAR Change Review Information Chapter : 10 Page: 1

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
10.1	4	10.1-001-10.1	Table of Contents 10-i thru xii [Am-66] Table of contents reissued with new format utilizing computerization with the sheets being renumbered.	Editorial
10.1	4	10.1-002-10.1	Section 10.1 [Am-65] Section 10.1 reissued with new format for change bars, sheet renumbered, and typographical errors corrected.	Editorial
10.1	4	10.1-003-10.1	T10.1-1 [Am-59] Generator power output was 1,203,378kW with valves wide open. This change represents about a 0.2% increase.	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
10.2	3	10.2-005-10.2	10.2-36 [Am-55] Adds requirement for the inspection of one valve of each type every 40 months and all valves within 10 years in order to match technical specifications. The provision to perform tests and inspections during each refueling is retained.	Addition
10.2	4	10.2-001-10.2	Sec. 10.2 [Am-65] Section 10.2 reissued with new format for change bars, sheet renumbered, and typographical errors corrected	Editorial
10.2	4	10.2-004-10.2	10.2-36 [Am-55] Improves grammar by changing "If the inspections..." to "If an inspection..."	Editorial
10.2	4	10.4-046-10.2	10.4-122 and -124 [Am-66] Corrects the error updated capacity data supplied in FSAR Amendment 65. The drain pump flow rate is 225 gpm.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
10.2.2	3	10.2-003-10.2.2	10.2-27 [Am-68] Revises the sentence to correct the statement "the high-pressure turbine cannot generate missiles." The statement is not supported by design documents. The original FSAR statement appears to be an interpretation error in that the high pressure turbine can produce missiles but they are bounded by the low pressure turbine missile.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
10.3.1	2	1.3-4-10.3.1	T1.3-2 [Am-55] Updates design change to reflect the plant modifications which replaced the automatic, hydraulic MSIV bypass valve actuators with manual flywheels.	Update
10.3.1	2	10.3-003-10.3.1-A	10.3-2 [Am-66] Changes the limit for RHR operation and natural cooldown to 100 psia in lieu of 125 psia based on design documents.	Correction
10.3.1	2	10.3-007-10.3.1-C	10.3-7 [Am-56] Deletes "within 10 secs" for closing time of MSIV. This may not be consistent with the preferred definition given in parenthesis as "five seconds after receiving the closing signal".	Correction
10.3.1	2	10.3-008-10.3.1-B	10.3-7 [Am-66] The words "an integral" were replaced by the words "a manual" for describing the 4-in. bypass valve. This revision is part of our response to the NRC request for additional information dated February 27, 1986, which was transmitted by our letter TXX-6126, dated December 8, 1986. MSIV Bypass Valves 10.3.1, 2nd paragraph indicates, "The MSIV and bypass valves are designed to close in 5 seconds upon receipt of MSIV closure signal". This position is revised by SSER #12, Section 10.3.1, page 10-1, and indicates, "The MSIV bypass valve actuators are replaced with manual operators". CPE submitted the impact of this change and submitted the evaluation by a letter, dated July 10, 1985. The NRC staff review is incomplete and identified as confirmatory issue (27) in Section 1.8 of this Supplement (SSER #12).	Revision
10.3.1	3	6.2-101-10.3.1	T6.2.4-6[Am-66](Sht. 1, 1A and 2) Changes classification of items 5, 9, 13 and 18 from "non-essential" to "essential" and changes Post-accident function to "Atmospheric Relief".	Revision
10.3.1	3	10.3-002-10.3.1	10.3-1 [Am-66] Updates the main steam system design parameters based on the design calculations.	Update
10.3.1	3	10.3-005-10.3.1-E	10.3-6 and -7 [Am-66] Adds safety-related air accumulators for PORV's as the compressed air system is non safety-related and may not be available. STEAM GENERATOR PORV ACTUATORS SER Section 10.3.1, Page 10-4, 3rd Paragraph indicates that, "By Amendment 22 and a letter dated June 22, 1981, PORV's are provided with a nitrogen accumulators...". However, subsequent to this	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			amendment, nitrogen accumulators were replaced by air accumulators by Amendment 27. This FSAR-CR revises the section to reflect Amendment 27, and SER needs to reflect the air accumulators as per Amendment 27.	
10.3.1	3	10.3-006-10.3.1-A	10.3-7 [Am-66] Changes the bottom of the steam pressure range to 100 psia in lieu of 125 psia.	Update
10.3.1	3	10.3-009-10.3.1-B	10.3-7 [Am-56] States that the bypass valve will be locked closed during power operation. This replaces a commitment for design to stop flow in either direction.	Revision
10.3.1	3	10.3-010-10.3.1-P	10.3-8 [Am-66] Deletes the sentence "Each MSIV bypass valve also has a two train module, open, close and auto switch on the control board." This revision is part of our response to the NRC request for additional information dated February 27, 1986, which was transmitted by our letter TXX-6126, dated December 8, 1986.	Revision
10.3.1	3	10.3-012-10.3.1-B	10.3-9 [Am-56] Deletes a description of the MSIV isolation signal which included closing the bypass valves from two places in the text.	Revision
10.3.1	3	10.3-013-10.3.1-B	10.3-10 [Am-66] The sentence "There is no provision for testing the bypass valves". is deleted. This revision is part of our response to the NRC request for additional information dated February 27, 1986, which was transmitted by our letter TXX-6126, dated December 8, 1986.	Revision
10.3.1	3	10.3-015-10.3.1	10.3-15 [Am-65] Updates the hydrostatic test pressure of MSIV Shell as per ASME B&PV Code, Section III, table NV3531-9 (for a 600 lb welded end valve).	Update
10.3.1	3	10.3-017-10.3.1-B	10.3-16 [Am-56] Adds the commitment to lock closed all four MSIV bypass valves during power operation.	Revision
10.3.1	3	10.3-018-10.3.1-B	10.3-16 [Am-66] Revises this section to describe the operation of the main steam isolation bypass valves during operations startup, hot standby and hot shutdown. This revision is part of our response to the NRC request for additional information dated February 27, 1986, which was transmitted by our letter TXX-6126, dated December 8, 1986.	Revision
10.3.1	3	10.3-022-10.3.1	T10.3-2 [Am-65] Changed the Main Steam Safety valve blowdown to 5% of the set pressure of the safety valve, as per ASME B&PV Code, Section	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			III, Subsection NC 7614.1 and specification 2323-MS-77, Rev.2.	
10.3.1	3	10.3-023-10.3.1-B	T10.3-5 [Am-56] Changes the MSIV bypass valve actuator from hydraulic to manual.	Revision
10.3.1	3	10.3-024-10.3.1	T10.3-9 [Am-65] Changed the material classification of nonpressure retaining component of the Main Steam Isolation Valves to match the design.	Revision
10.3.1	3	10.3-025-10.3.1	T10.3-10 [Am-55] Changes secondary cycle water chemistry to agree with the recommendation of the EPRI Owners Group for optimum performance of the steam generators.	Revision
10.3.1	3	10.3-029-10.3.1-E	F10.3-1 [Am-67] Revised to show the addition of air operated valves. (See evaluation number 10.3-005-10.3.1-E)	Revision
10.3.1	3	10.3-030-10.3.1-K	F10.3-1 [Am-67] Adds Locked closed to manually closed isolation valves in containment penetrations as per 10 CFR 50, Appendix A, GDC 56 and 57.	Revision
10.3.1	4	10.3-001-10.3.1	Sec. 10.3 [Am-65] Section 10.3 reissued with new format for change bars, sheets renumbered, and typographical errors corrected.	Editorial
10.3.1	4	10.3-011-10.3.1-B	10.3-8 and 10.3-10 [Am-66] Deletes Automatic operation and testing of MSIV bypass valves, as the valves are operated manually and locked closed during power operation.	Correction
10.3.1	4	10.3-014-10.3.1-C	10.3-11 [Am-56] Deletes "within 10 seconds" with reference to the MSIV closing time. The calculation ties actuation signals and actuating conditions to the accident sequence so that the preferred wording is given as "within five seconds from receipt of the initiating signal." Deletes "10-second" from closure time in items 2 and 3 also.	Correction
10.3.1	4	10.3-016-10.3.1	10.3-15 [Am-65] Adds clarification for the disc hydrostatic testing as per ASME B&PV Code, Section III, para NB3531.2(c).	Clarification
10.3.1	4	10.3-021-10.3.1	T10.3-1 thru T10.3-11 [Am-65] Tables are being reissued for new format for change bars and sheets are renumbered.	Editorial
10.3.1	4	10.3-026-10.3.1	T10.3-10 [Am-56] Removes residual hydrazine from the specification for condensate which is sampled upstream of the hydrazine injection point. The	Editorial

SER Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
		residual hydrazine appears appropriately in the Feedwater specification.	

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
10.3.2	3	10.3-020-10.3.2	10.3-17 [Am-66] Adds safety related accumulators to steam valves for TDAFW pump to permit valve closing for containment isolation or to isolate depressurized steam generator.	Correction
10.3.2	3	10.3-031-10.3.2	F10.3-1 [Am-67] Revises the drawing to reflect the following as-built conditions: a) Adds safety class change 5/2 and pipe tag nos. b) Changes globe valves to gate valves, c) Changes reference drawing no. from 1102J11 to an updated 1103J20.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
10.3.3	3	10.2-002-10.3.3	10.2-4 [Am-65] Change reflects the replacement of 90-10 copper nickel alloy MSR tube bundles and tube sheets with ferritic stainless steel tubes and inconel clad carbon steel tube sheets. This prevents the degradation of steam generator tubing.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
10.4	3	10.4-058-10.4	T10.4-15 [Am-57] Alters the span for normal operating conductivity from 2000 to 3000 micromhos/cm to 600 to 2000 micromhos/cm.	Correction
10.4	3	10.4-059-10.4	T10.4-15 [Am-55] Deletes the limitation on boiler water alkalinity and on ammonia.	Revision
10.4	3	10.4-060-10.4	T10.4-15 [Am-55] Deletes the specifications for sodium sulfite and sodium sulfate. An all volatile water treatment is to be used on the auxiliary boiler similar to that used for the nuclear feedwater.	Revision
10.4	3	10.4-076-10.4	F10.4-13 [Am-67] This figure re-drawn and split into 2 sheets. Also includes following changes: a) adds permanent nitrogen purge system to feedwater heaters to prevent corrosion, b) removes note 13 - not applicable, c) adds injection, sample and test instrument connections in extraction steam system to measure temperature, pressure and flow for secondary side and turbine performance testing, d) revises pipe specifications adds line numbers, valve tag numbers and new note 13.	Revision
10.4	3	10.4-077-10.4	F10.4-13 & 10.4-14 & 10.4-18 [Am-67] Revises the figure to show the Permanent Nitrogen purge system to the feedwater heaters and drain coolers. This prevents corrosion during startup and laydown time periods.	Revision
10.4	3	10.4-081-10.4	F10.4-16 [Am-67] Modifies the Auxiliary Steam Condensate sample line to allow easier maintenance and calibration of the radiation monitor.	Revision
10.4	3	10.4-082-10.4	F10.4-17 [Am-67] (Shts. 1-3) To clarify interface between site and ACPSI Turbine Oil Systems and to incorporate as-built conditions. Also manual valves to control the F.W.P. Turbine Extractor Flow.	Revision
10.4	3	10.4-083-10.4	F10.4-18 [Am-67] (Shts. 1&2) Adds the following to reflect the as-built conditions: (Sheet 1): 1. Adds Unit 2 nitrogen supply to the feedwater heaters and drain coolers to prevent corrosion. 2. Adds tritium measurement racks to the system 3. Changes nitrogen purge valves for the feedwater heaters and drain coolers to normally closed position. 4. Adds Unit 2 nitrogen bottle rack. (Sheet 2): 1. Supply nitrogen to the containment fire protection stand pipe to prevent corrosion. 2. Supply nitrogen to Unit 2 steam generators to provide a continuous blanket during wet lay up 3. Adds pressure control valve to Unit 1 containment fire protection supply line. 4. Adds relief valves	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			to RMWST and CST (See NE-15643).	
10.4	3	10.4-085-10.4	F10.4-19 [Am-67] Adds Unit 1 primary water valve rack and line no. to hydrogen system. Minor editorial and technical changes.	Revision
10.4	4	10.4-056-10.4	T10.4-14 thru -20 [Am-65] Full table reissued with new format utilizing computerization.	Editorial
10.4	4	10.4-057-10.4	T10.4-15 [Am-57] Changes the title to define that this table applies to make-up water for the auxiliary boiler only.	Clarification
10.4	4	10.4-061-10.4	T10.4-15 [Am-57] Changes note to give anticipated source of amines. Previously the note confirmed that the presence of amines is desirable for pipe line protection.	Clarification
10.4	4	10.4-062-10.4	T10.4-15 [Am-57] Previous note banned only phosphates. This has been clarified to permit only sodium borate together with the all volatile treatment.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
10.4.1	3	10.4-002-10.4.1-M	10.4-5 and -6 [Am-65] Reflects the deletion of integrally grooved tube sheets and installation of titanium tube bundles and titanium clad carbon steel tube sheets in the Units 1 & 2 condenser shells. The new leak tight tube sheet design features solid tube sheets in addition to welded tube to tube sheet joints, which resulted in deletion of the tube sheet pressurization system.	Revision
10.4.1	3	10.4-003-10.4.1	10.4-33 [Am-65] Reflects the replacement of condenser tube bundles material from copper-nickel alloy to titanium and the condenser tube sheets material from aluminium-bronze to a titanium clad carbon steel. This material change improves the quality of condenser tubes and tube sheets to resist any long term corrosion, erosion, pitting or stress-cracking when used with circulating water.	Revision
10.4.1	3	10.4-087-10.4.1-M	040-133 [Am-65] Reflects the replacement of condenser tube bundle material from copper-nickel alloy to titanium and the condenser tube sheets from aluminum-bronze to titanium-clad carbon steel.	Revision
10.4.1	3	10.4-088-10.4.1-M	040-183 [Am-65] Reflects the replacement of condenser tube bundle material from copper-nickel alloy to titanium and the condenser tube sheets from aluminum-bronze to titanium-clad carbon steel.	Revision
10.4.1	4	10.4-001-10.4.1	Section 10.4 [Am-65] Section 10.4, reissued with new format for change bars, sheets renumbered and typographical errors corrected.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
10.4.2	3	10.4-063-10.4.2	F10.4-3 [Am-67] Adds isolation and vent valves to condenser vacuum suction lines which allow independent operation of each condenser shell.	Revision
10.4.2	4	10.4-050-10.4.2	T10.4-1 thru -12 [Am-65] Full table reissued with new format utilizing computerization.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
10.4.3	4	10.4-064-10.4.3	F10.4-4 [Am-67] Corrects relief valve discharge and discharge piping line designation. Editorial changes.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
10.4.5	3	10.4-004-10.4.5	10.4-36 [Am-65] There are no performance tests identified for the circulating water system butterfly valves in any of the technical references. Routine maintenance activities assure proper functioning of the valves and valve operators.	Revision
10.4.5	3	10.4-005-10.4.5	10.4-37 [Am-68] Deletes "two to three ppm of chlorine are added" and adds "chlorine is added". The chlorine concentration limit depends on the location of sample measurement. The NPDS permit limits to the chlorine concentration 0.2 average to 0.5 ppm maximum. The statement that chlorination is not needed and that systems can be operated with extended outages in the chlorination system is deleted. Chlorine is required to minimize organic fouling which could lead to microbiologically influenced corrosion.	Revision
10.4.5	3	10.4-054-10.4.5	T10.4-11 [Am-55] Revises corrosion inhibitors suitable for use at CPSES to delete Potassium Dichromate for environmental reasons and to add two proprietary inhibitors from Calgon. Deletes the analysis for total ions and dissolved oxygen as not important to the performance of the inhibitors or the cooling water. (Turbine Plant Cooling Water)	Revision
10.4.5	3	10.4-065-10.4.5	F10.4-5 [Am-67](Shts.1-4) Adds three non safety-related chiller condensers and five booster pumps to the system to increase turbine building HVAC system cooling capacity. Change pipe classification for the main condenser water box connections to prevent corrosion.	Revision
10.4.5	3	10.4-079-10.4.5	F10.4-15 [Am-67] Revision reflects addition of chain operator to the valve for accessibility (valve 1TW-048).	Revision
10.4.5	3	10.4-080-10.4.5	F10.4-15 [Am-67] Revision reflects the addition of demineralized water line and associated control to inlet of the turbine plant cooling water head tank.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
10.4.6	3	10.4-066-10.4.6	F10.4-7 [Am-67](Shts.1&2) Adds pressure instrumentation to the condensate polishing system and minor editorial and technical changes.	Revision
10.4.6	4	10.4-008-10.4.6	10.4-54 & 10.4-55 [Am-66] Changes Condensate Clean-up System to Condensate Polishing System.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
10.4.7	2	10.4-014-10.4.7-J	10.4-59 [Am-68] Revises description of the steam generator sampling system to delete reference to steam generators 3 and 4. They were determined to be unnecessary and the sample lines were capped.	Revision
10.4.7	2	10.4-021-10.4.7	10.4-68 thru -71 [Am-59] Describes the changes to the Feedwater System incorporated as a result of concerns regarding water hammer and steam generator tube vibration. The interlocks provided as a result of Amendment 10 are non-safety grade, but are electrically isolated from safety class equipment where they interface. The description with respect to the FIV is changed only as follows: 1) The feedwater is routed to the auxiliary nozzle via the preheater bypass line instead of the Feedwater Bypass line. 2) The value of the S.G. level set-point is added. 3) The value of the S.G. pressure set-point is specified at 605 psig from a range of 500-800. 4) The description of the feedwater flow switches is made more specific. 5) The minimum feedwater temperature is raised from 200oF to 250oF and the maximum temperature difference is specified as 5oF in place of a "a few degrees".	Revision
10.4.7	2	10.4-023-10.4.7	10.4-68 thru -71 [Am-59] The Feedwater Bypass Tempering Valve is replaced by the Feedwater Split Flow Bypass Valve (FSBV). This change replaces the function of minimizing thermal transients at the auxiliary nozzle with a more effective function of minimizing flow induced vibration in the S. G. preheater section while also reducing thermal transients.	Revision
10.4.7	2	10.4-025-10.4.7	10.4-71 [Am-66] Changes the flow split from a fixed 90:10 (40% - 100% load) to 90:10 at 100% and somewhat less from 50% to 100%, to match the as-built system.	Revision
10.4.7	3	10.4-010-10.4.7	10.4-56 [Am-66] Adds the MSR Separator Drain Tank which provides condensate to the system.	Correction
10.4.7	3	10.4-015-10.4.7	10.4-61 [Am-66] Adds the classification of the system piping in Safeguard Building.	Revision
10.4.7	3	10.4-018-10.4.7	10.4-66 [Am-66] Identifies Condensor Hot Well low level as an additional trip for the Condensate Pumps.	Correction
10.4.7	3	10.4-024-10.4.7	10.4-68 thru -71 [Am-66] Modifies the controls on the FIBV to remain closed (instead of automatically open) upon lack of water hammer permissives. Clarifies	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			that the FIBV is manually opened to purge pockets of cold water.	
10.4.7	3	10.4-045-10.4.7	10.4-99 [Am-66] Deletes the stainless steel lagging on the extraction steam piping and feedwater heaters 5 and 6 within the condenser necks, to prevent damage to tube bundles in the event of the lagging tearing away. The purpose of the insulation is to reduce the heat transfer and not to protect the components from steam impingement erosion.	Revision
10.4.7	3	10.4-048-10.4.7	10.4-138 and -139 [Am-66] Adds R.G. 1.32, 1.47, 1.53 and 1.75 as applicable to the Condensate and Feedwater Systems.	Addition
10.4.7	3	10.4-055-10.4.7	T10.4-13 [Am-65](Sht. 1) Update the Condensate System hot well sparger flow rate, which eliminates uncontrolled rate of steam flow to the condenser. This system design modification reduces uneven heating, minimal deaeration, severe noise and vibration in condensers.	Revision
10.4.7	3	10.4-067-10.4.7	F10.4-8 [Am-67](Shts. 1-3) Adds three restriction orifices and two globe valves on the steam supply line to the condenser hot well spargers. Also added four test connection lines with globe valves.	Revision
10.4.7	3	10.4-068-10.4.7-J	F10.4-9 [Am-67](Sht. 2) Deletes the sample connections from the feedwater lines to steam generators 3 and 4. They were determined to be unnecessary and the sample lines were capped.	Revision
10.4.7	3	10.4-069-10.4.7	F10.4-9 [Am-67](Sht. 2) Adds "locked open" to manual valves upstream and down stream of feedwater isolation bypass valves (FIBV) to prevent inadvertent closure of either manual valve, which would prevent flow through the FIBV and opening of feedwater isolation valves.	Revision
10.4.7	3	10.4-071-10.4.7	F10.4-9 [Am-67](Sheet 2) Adds "Locked Closed" to manually closed isolation valves in containment penetrations as per 10 CFR 50, Appendix A, GDC 56 and 57. Adds the safety class 2 to 5 interface for drain valves.	Revision
10.4.7	3	10.4-072-10.4.7	F10.4-9 [Am-67](Sht. 3) 1) Corrects the actual position of temperature elements. On feedwater to steam generators. 2) Adds root and vent valves to each pressure element as per ASME B&PV Section III, subsection NC 3676.4.	Revision
10.4.7	4	6.2-036-10.4.7	T6.2.4-1 [Am-66](Shts. 2 and 3) The Feedwater Tempering Line is renamed the Feedwater Preheater Bypass Line.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
10.4.7	4	10.4-006-10.4.7	10.4-51 [Am-66] Deletes discussion on CST which is discussed in Section 9.4.9. Provides full titles for ASME Sections III and IV.	Correction
10.4.7	4	10.4-007-10.4.7	10.4-52 [Am-66] Adds the NRC Reg. Guide and ANSI Standard applicable to Condensate and Feedwater system.	Correction
10.4.7	4	10.4-009-10.4.7	10.4-54 & 10.4-55 [Am-68] Corrects the title of NRC Regulatory Guide 1.32 by deleting the words, "use of IEEE Standard 308-1971."	Correction
10.4.7	4	10.4-012-10.4.7	10.4-58 [Am-66] Corrects the usage of the terms "bypass" and "split flow bypass" and clarifies the description without changing technical content.	Clarification
10.4.7	4	10.4-013-10.4.7	10.4-59 & 10.4-60 [Am-66] Adds Paragraph to describe the full flow flushing operation. Editorial: Changes to correct terminology.	Addition
10.4.7	4	10.4-016-10.4.7	10.4-61 [Am-66] Changes to correct terminology.	Editorial
10.4.7	4	10.4-017-10.4.7	10.4-64 [Am-66] This change corrects the terminology usage and clarifies Annubar function.	Clarification
10.4.7	4	10.4-019-10.4.7	10.4-66 [Am-66] This change corrects terminology.	Editorial
10.4.7	4	10.4-020-10.4.7	10.4-67 [Am-66] Identifies that transfer from the feedwater control bypass valves to the feedwater control valve is manually initiated.	Clarification
10.4.7	4	10.4-022-10.4.7	10.4-68 thru -71 [Am-59] FIV replaces FIVs in the last line of page 10.4-69.	Editorial
10.4.7	4	10.4-047-10.4.7	10.4-138 [Am-60] Subsequently to the introduction of the Westinghouse memo on its High Pressure Water Hammer Test Program as Reference 19, this memo was given the number WCAP-09364.	Editorial
10.4.7	4	10.4-049-10.4.7	10.4-138 [Am-68] Corrects the title of NRC Reg. Guide 1.32 by deleting the incorrect words, "use of IEEE standard 308-1971."	Editorial
10.4.7	4	10.4-070-10.4.7	F10.4-9 [Am-67] Sht. 2) Updates figures to reflect as-built conditions.	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
10.4.8	2	10.4-028-10.4.8	10.4-77 [Am-66] Revises text to add new air operated valves HV-2397A, HV-2398A, HV-2399A and HV-2400A. Motor operated valves HV-2397, -2398, HV-2399 and HV-2400 previously used to isolate steam generators during DBA's and HELB are no longer used in our analysis for this function.	Revision
10.4.8	3	10.4-026-10.4.8	10.4-73 and -74 [Am-55] Changes steam generator blowdown water chemistry to match latest evaluation of the anticipated conditions with and without a leak from the primary side. This change deletes free hydroxide from both analyses, and hydrazine and morpholine from the analysis without leak and eliminates the estimate of particle size.	Update
10.4.8	3	10.4-089-10.4.8	F10.4-10 [Am-67] (Sht. 1 and 2) Revises to reflect as-built conditions. Adds class break of pipes, line nos., valves, piping materials and valve tag nos.	Revision
10.4.8	4	10.4-027-10.4.8	10.4-73 and -74 [Am-57] Retains the original estimate for silica at less than 1 mg per liter.	Correction
10.4.8	4	10.4-073-10.4.8	F10.4 [Am-67](Sheet 1&2) Corrects the line number	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
10.4.9	2	10.3-019-10.4.9-D	10.3-17 [Am-65] Adds warm-up valves and steam supply bypass lines to the Turbine Driven Auxiliary Feedwater (TDAFW) Pump. These bypass lines are used to pre-warm the steam supply lines to minimize transient effect during TDAFW Pump surveillance testing.	Revision
10.4.9	2	10.4-011-10.4.9-G	10.4-56 [Am-68] Clarifies the usable volume, design volume and the availability of the condensate storage tank volume for emergency use by the AFW system. The "12% margin" has been removed from the list of design has for the tank. The 12% margin resulted from a previous calculation of the available water. Such calculation results are descriptions that should not be tabulated under the design basis for the equipment. SER Section 10.4.9.1, page 10-15, 2nd paragraph, indicates, "The technical specifications require a minimum of 276,000 gallons of water to be reserved in the condensate storage tank". This statement is not consistent with the revised FSAR which states that 270,000 gallons of water are reserved for emergency use for the AFW system.	Revision
10.4.9	2	10.4-029-10.4.9-H	10.4-84 & 10.4-87 [Am-66] Reflects the changes in design parameters for the AFW components based on the design documents, certified pump curves and W-SIP 10.1; clarifies the text description.	Revision
10.4.9	2	10.4-031-10.4.9-F	10.4-84 [Am-68] Revises flow rates to be consistent with the requirements of Westinghouse.	Revision
10.4.9	2	10.4-033-10.4.9-G	10.4-85 [Am-68] Revises Condensate [illegible]age tank volume to be consistent with the project calcula[illegible]ons. (See also evaluation no. 10.4-011-10.4.9-G) SER Section 10.4.9.1, page 10-15, 2nd paragraph indicates, "the technical specifications require a minimum of 276,000 gallons of water to be reserved in the condensate storage tank". This statement is not consistent with the revised calculations which show that a reserve of 270,000 gallons of water are satisfactory for emergency use for the AFW system.	Revision
10.4.9	2	10.4-040-10.4.9	10.4-94 [Am-66] Adds high flow to the description of the automatic trip of the flow control valves from manual to automatic pressure control to protect the pumps. The automatic trip requires low discharge pressure and high flow.	Correction
10.4.9	3	10.3-027-10.4.9-D	F10.3-1 [Am-65] Adds warm-up valves and steam supply bypass lines to the Turbine Driven Auxiliary Feedwater (TDAFW) Pump. These lines are used	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			to pre-warm the steam supply lines to minimize the transient effect during surveillance testing of the TDAFW Pump.	
10.4.9	3	10.3-028-10.4.9	F10.3-1 [Am-67] (1) Adds AFW pump turbine trip and throttle valve in order to prevent overpressurization of components. Manufacturer of turbine advised to keep trip valve below seat drain open for continuous drain. (2) Revises the drawing to reflect the following as-built conditions: a) Change note 14 to reference Westinghouse drawing 8758D39, sheet 13, b) Change line number, move safety class break, and revise note 13 to indicate the control valve has an associated safety class 3 accumulator, c) Correct the direction of indicated flow, d) Add safety class change from 3 to 5 to IMS-374 and IMS-375, e) Delete accumulator arrangement and add note 13, 18 as indicated on drawing.	Revision
10.4.9	3	10.4-037-10.4.9	10.4-87 [Am-57] Deletes sentence indicating that any one of the AFW pumps is capable of allowing the plant to go to safe shutdown. The fact is that either both motor-driven pumps or the turbine- driven pump alone is required. This change still meets the redundancy criteria and the diversity criteria.	Revision
10.4.9	3	10.4-038-10.4.9	10.4-89 [Am-68] Adds ANS Safety Class 2 for AFW system to meet the requirements of a containment penetration boundary and a connection to feedwater.	Revision
10.4.9	3	10.4-041-10.4.9	10.4-94 [Am-66] Updates the FSAR to identify that the TDAFW Turbine has a mechanical/hydraulic governor in lieu of an electronic governor.	Update
10.4.9	3	10.4-042-10.4.9-I	10.4-94 [Am-68] Revises sentence to be consistent with the Westinghouse requirements that pump response time be based upon receipt of actuation signal. Also deletes the low suction pressure trip to prevent a spurious low pressure signal from tripping the Auxiliary Feedwater System. This trip is not required per system design (see LER 50-423-87-00;-00 from Northeast Utility).	Revision
10.4.9	3	10.4-044-10.4.9	10.4-95 [Am-65] Corrects the Condensate Storage Tank level alarms to HI-HI, LO, and LO-LO from high-high, high and low.	Revision
10.4.9	3	10.4-051-10.4.9-H	T10.4-8 [Am-66] Reflects the changes in design parameters for the AFW components based on the design documents, certified pump curves and W-SIP	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			10.1. SER page 10-11, Section 10.4.9.1, 2nd paragraph indicates, "the AFW System design parameters". By this FSAR-CR, the SER needs to be revised to update the AFW System design parameters identified in Table 10.4-8.	
10.4.9	3	10.4-052-10.4.9-I	T10.4-9 [Am-68] (Sheet 6) Deletes item 16 which discusses failures of the low suction pressure trip instruments. The system design does not require this trip. (See LER 50-423-87-004-00 for Northeast Utility.)	Revision
10.4.9	3	10.4-074-10.4.9	F10.4-11 [Am-67] 1) Adds AFW pump suction piping relief valves to prevent overpressurization. 2) Corrects the tag no. for moment restraint. 3) Deletes the PS-2470A/B to prevent the inadvertent trip of AFW pumps; and are not required as per design. 4) Deletes the line 3/4-152-34 valve 1AF-214 as it is not required by design.	Revision
10.4.9	3	10.4-075-10.4.9-K	F10.4-11 [Am-67] Revises to reflect the containment penetrations normally closed manual isolation valves as locked closed valves, per GDC-57, 10 CFR 50, Appendix A.	Revision
10.4.9	3	10.4-084-10.4.9	F10.4-18 [Am-67] (Shts. 1&2) Adds pressure relief valves downstream of pressure control valves on nitrogen supply lines to the Condensate Storage Tank and Reactor Makeup Water Storage Tank to prevent overpressurization in the event of failure of pressure control valves.	Revision
10.4.9	3	10.4-086-10.4.9	Q40.20 [Am-66] The motor driven and turbine driven auxiliary feedwater pump low suction pressure interlocks were disabled. During emergency conditions it is important to have the AFW pump available. Thus, disabling these interlocks ensures that they will not preclude the automatic operation of the AFW pump.	Revision
10.4.9	4	10.4-030-10.4.9	10.4-84 [Am-68] Clarifies the AFW design basis to 1) 4 hours operation at hot standby in the event of onsite/offsite power available with single failure, and 2) 2 hours operation at hot standby in the event of main steam or feedwater line breaks.	Clarification
10.4.9	4	10.4-032-10.4.9-F	10.4-84 [Am-57] Adds the auxiliary flowrate of 430 gpm.	Addition
10.4.9	4	10.4-034-10.4.9-F	10.4-86 [Am-68] Clarifies the system description for the AFW motor driven and turbine driven pump capacities. Also clarifies the pump discharge	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			piping configuration, and deletes the sentence as it is duplicate of a subsequent sentence.	
10.4.9	4	10.4-035-10.4.9	10.4-87 [Am-68] Clarifies the sentence by adding the word "three" to AFW pumps.	Clarification
10.4.9	4	10.4-036-10.4.9	10.4-88 [Am-68] Clarifies the sentence by adding "Large break LOCA" as per the Westinghouse system description.	Clarification
10.4.9	4	10.4-039-10.4.9	10.4-93 [Am-66] Changes the description to clearly describe that the isolation of the S.G. blowdown and sampling occur upon automatic initiation of of the AFW System.	Clarification
10.4.9	4	10.4-043-10.4.9	10.4-95 [Am-68] Revises the sentence to be consistent with pages 10.4- 86 and 10.4-94 as to location of the flow control stations.	Correction

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SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification

Total Records Processed : 128

Chapter 10
EVALUATIONS SUMMARY BY ALPHA DESIGNATOR

ALPHA	GROUPS 1	2	3	4	TOTAL
		6	50	39	95
A		1	1		2
B		1	7	1	9
C		1		1	2
D		1	1		2
E			2		2
F		1		2	3
G		2			2
H		1	1		2
I			2		2
J		1	1		2
K			2		2
M			3		3
Totals :		15	70	43	128
Factored Totals :		14	59	42	115

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EVALUATIONS SUMMARY BY GROUP

Chapter : 10

SER	GROUPS 1	2	3	4	TOTAL
10.01.0				3	3
10.02.0			1	3	4
10.02.2			1		1
10.03.1		4	17	6	27
10.03.2			2		2
10.03.3			1		1
10.04.0			9	4	13
10.04.1			4	1	5
10.04.2			1	1	2
10.04.3				1	1
10.04.5			6		6
10.04.6			1	1	2
10.04.7		4	12	14	30
10.04.8		1	2	2	5
10.04.9		6	13	7	26

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EVALUATIONS SUMMARY BY GROUP

Chapter : 10

SER	GROUPS 1	2	3	4	TOTAL
TOTAL :		15	70	43	128

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SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-69)	Change Classification
11.2.1	2	11.2-2-11.2.1	11.2-12 [Am-66] The Resin Disposal System physical configuration allows for the bypassing of the Spent Resin Storage Tank (SRST) which would be needed if it were secured for maintenance or repair. Currently the FSAR states that all resin is sent to the SRST and then directed to a disposal system. This FSAR change is needed to allow for the system flexibility that bypassing the SRST will provide.	Addition
11.2.1	2	11.2-3-11.2.1	F11.2-2 [Am-67] Overpressure protection needed for line 3-WP-1-048- 151R-2. Relief valve 1WP-7176 has been added to the line.	Revision
11.2.1	2	11.2-7-11.2.1	F11.2-4 [Am-67](Sheet 1) Revises figure to reflect DCA 3803, Rev. 3, Page 4, added inlet isolation valve XWP-222 to floor drain tank strainer TBX-WPSRFD-02.	Revision
11.2.1	2	11.2-8-11.2.1	F11.2-4 [Am-67](Sheet 2) Revises figure to reflect ECN 052, pages 2 and 4. Added valves XWP-318 and XWP-320. Revision: Revises figure to reflect DCA 25308-1, page 2. Added a clamp on flow indicator monitor flow to the demineralizer water tank during bypass or overflow mode of operation.	Revision
11.2.1	2	11.2-10-11.2.1	F11.2-4 [Am-67](Sheet 2) Revises figure to reflect DCA-25352-0, page 2, to reflect as-built conditions line 2WP-X-221-151R5 is connected to line 2WP-X-455-151R5 instead of line 2WP-X-240-151R5.	Revision
11.2.1	2	11.2-11-11.2.1	F11.2-4 [Am-67](Sheet 2) Revises figure to show valve XWP-0199 normally closed as the telltale drain is not normally used.	Revision
11.2.1	2	11.2-12-11.2.1	F11.2-4 [Am-67](Sheet 3) Revises figure to reflect DCA-3803-3, page 4, added inlet isolation valve XWP-221 to floor drain tank strainer TBX- WPSRFD-01. Revises figure to reflect as-built conditions and correct editorial errors.	Revision
11.2.1	3	11.2-2-11.2.1	F11.2-2 [Am-67] "F.C." add to valve #i - HV7311 and 7312 to ensure containment isolation (per GDC-56) upon loss of air.	Correction
11.2.1	3	11.2-4-11.2.1	F11.2-3 [Am-67](Shts. 1 and 2) Local sample line is relocated downstream of valve X-WP-7227. This change reflects as-built conditions and does not adversely affect system operation.	Correction
11.2.1	3	11.2-6-11.2.1	F11.2-4 [Am-67](Sheet 1) Revises drawings to reflect as-built conditions and correct editorial errors.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
11.2.1	3	11.2-9-11.2.1	F11.2-4 [Am-67](Sheet 2) Revises figure to reflect as-built conditions and correct editorial errors.	Revision
11.2.1	3	11.2-14-11.2.1	F11.2-6 [Am-67] Revised figure to reflect as-built conditions and correct editorial errors.	Revision
11.2.1	3	11.2-15-11.2.1	F11.2-7 [Am-67] Revised figure to reflect as-built conditions and correct editorial errors.	Revision
11.2.1	3	11.2-20-11.2.1	F11.2-8 [Am-67] Revised figure to reflect as-built conditions and correct editorial errors.	Revision
11.2.1	4	11.2-1-11.2.1	11.2 [Am-66] This section is being reissued in the computerized format.	Editorial
11.2.1	4	11.2-5-11.2.1	F11.2-4 [Am-67] Figure was divided into three parts and re-drawn for clarity.	Clarification
11.2.1	4	11.2-13-11.2.1	F11.2-5 [Am-67] Drafting error.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
11.2.2	2	11.3-2-11.2.2	11.3-8 [Am-55] Revises alarm setpoint for Catalytic Hydrogen Recombiner from 0.15% to 0.25% to reflect as built conditions.	Correction
11.2.2	2	11.3-3-11.2.2	11.3-10 [Am-66] Changes the description to allow for greater operational flexibility of the Waste Gas Processing System and provide a means of operating the system under low pressure conditions.	Addition
11.2.2	2	11.3-4-11.2.2	11.3-11 [Am-66] Changes the description to allow for greater Gaseous Waste Processing System flexibility and allow for operation at the higher system pressures expected with increasing plant age.	Addition
11.2.2	4	11.3-1-11.2.2	11.3 [Am-66] This section is being re-issued in the computerized format.	Editorial
11.2.2	4	11.3-5-11.2.2	F11.3-1 [Am-67] Corrects drafting errors.	Editorial
11.2.2	4	11.3-6-11.2.2	F11.3-5 [Am-63] Deletes figure as it only contained editorial information.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
11.2.3	4	11.4-1-11.2.3	11.4-5 [Am-55] Clarifies description of containers used for shipment and disposal of radioactive wastes.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
11.3	2	11.5-7-11.3	T11.5-1 [Am-56] Revises basis for process radiation alarm setpoint.	Revision
11.3	2	11.5-8-11.3	T11.5-1 [Am-68] Provides correct reference to figures to reflect as built conditions. Corrects principle isotopes monitored (XRE 5570 A&B, XRE 5380, XRE 5895 A & B, XRE 5896 A & B).	Revision
11.3	2	11.5-9-11.3	T11.5-1 [Am-68] Corrects basis for alarm set points for: XRE 5701 - Adds Note 4 since personnel protection is considered in this setpoint, IRE 5698 - Changes Note from 2 to 4. These are not XRE 5700 release points and setpoint is for XRE 5702 personnel protection. IRE 5566 - Deletes Note 2. This is not a release point. IRE 5637 IRE 2959 XRE 5251 XRE 5252 1,2 RE 5503 - The basis for these setpoints is leak detection. 4269 Adds Note 7 to identify these basis. These 4270 are not considered normal effluent monitors 4509 in the CPSES design. 4510 4511 5502	Revision
11.3	2	11.5-11-11.3	T11.5-1 [Am-68](Sheet 4) Adds XRE 5895B & XRE 5896B to table.	Revision
11.3	2	11.5-12-11.3	T11.5-1 [Am-68] Changes Note 6 to "iodine absorber cartridge" instead of "charcoal cartridge collector" since collectors other than charcoal may be used.	Revision
11.3	2	11.5-16-11.3	F11.5-1 [Am-66] Revises figure to add Control Room CRT and includes an editorial change to the legend.	Revision
11.3	3	11.5-13-11.3	T11.5-1 [Am-59] (sheet 3) Includes high alarm setpoint and basis for containment air monitor.	Update
11.3	4	11.5-1-11.3	11.5 [Am-66] Section 11.5 is being reissued with new format for change bars and sheets renumbered, with typographical errors corrected.	Editorial
11.3	4	11.5-2-11.3	11.5-24 [Am-59] Clarifies basis for alarm setpoints for containment air particulate and iodine.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
11.3	4	11.5-3-11.3	11.5-55 [Am-59] Clarifies implementation of monitors to detect excessive radiation levels released to environment per GDC 60.	Clarification
11.3	4	11.5-4-11.3	11.5-2, 11.5-6, 11.5-9, 11.5-10,11.5-12 to11.5-15,11.5-22,11.5-33, 11.5-26 &2711.5-29,11.5-30,11.5-37 to39,11.5-56[Am-66] Changes to delete items that have been determined to be inappropriate and to clarify design modifications.	Clarification
11.3	4	11.5-5-11.3	11.5-56 [Am-59] Clarifies use of fluid discharge isolation valves and implementation of GDC-63 concerning excessive radiation levels in fuel storage and radioactive waste processing.	Clarification
11.3	4	11.5-6-11.3	T11.5-1 thru 11.5-3 [Am-66] Clarifies design modifications.	Clarification
11.3	4	11.5-10-11.3	T11.5-1 [Am-68] Lists XRE 5253 separately for clarity.	Clarification
11.3	4	11.5-14-11.3	T11.5-2 [Am-66] Change environmental design conditions to match specifications.	Clarification
11.3	4	11.5-15-11.3	F11.5-1 [Am-68] Editorial changes to provide agreement with existing plant design.	Editorial

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SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification

Total Records Processed : 2

Chapter 11

EVALUATIONS SUMMARY BY ALPHA DESIGNATOR

ALPHA	GROUPS 1	2	3	4	TOTAL
		16	8	16	40
Totals :		16	8	16	40
Factored Totals :		16	8	16	40

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EVALUATIONS SUMMARY BY GROUP

Chapter : 11

SER	GROUPS 1	2	3	4	TOTAL
11.02.1		7	7	3	17
11.02.2		3		3	6
11.02.3				1	1
11.03.0		6	1	9	16
TOTAL :		16	8	16	40

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SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
12.1.1	4	12.1-1-12.1.1	Sec. 12.1 thru 12.3 and 12.5 [Am-66] Sections issued in new computerized format.	Editorial
12.1.1	4	12.1-2-12.1.1	Sec. 12.1 [Am-66] Administrative change of titles and responsibilities reflect the current Nuclear Operations organization.	Editorial
12.1.1	4	12.1-3-12.1.1	12.1-1 [Am-55] Makes minor editorial changes throughout the section.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
12.2	2	12.2-5-12.2-A	12.2-17 [Am-66] The vent computer code used for these calculations is no longer available for use at CPSES.	Revision
12.2	2	12.2-9-12.2	T12.2-16 thru 12.2-19B and 12.2-24 [Am-66] These new tables present updated source term data and bases.	Revision
12.2	3	12.2-6-12.2-A	12.2-19, 12.2-20 and T12.2-5 [Am-66](Sht. 5) The vent computer code used for these calculations is no longer available for use at CPSES.	Revision
12.2	3	12.2-7-12.2	T12.2-5 [Am-66] (Sheet 5) Revises source strength from 7.6E4 to 7.6E5.	Correction
12.2	4	12.2-1-12.2	12.2-1 [Am-66] To delineate the equipment qualification dose evaluations from the initial shield design calculations.	Clarification
12.2	4	12.2-2-12.2	12.2-9, 12.2-10 and 12.2-11 [Am-66] This text has been replaced by Insert 1, which includes the updated source term information resulting from the SWEC CAP.	Clarification
12.2	4	12.2-3-12.2	12.2-11 [Am-66] This change clarifies the heading for Section 12.2.1.5.	Clarification
12.2	4	12.2-4-12.2	12.2-12 [Am-66] A change to denote initial shielding design as opposed to all shield evaluation (i.e., equipment qualification).	Clarification
12.2	4	12.2-8-12.2	T12.2-7 [Am-66](Sht. 1) Table is being reissued in the computerized format and includes editorial corrections.	Editorial
12.2	4	12.2-10-12.2	T12.2-16 thru 12.2-19B, 12.2-24 [Am-66] Tables are being issued in a new computerized format.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
12.3	2	12.3-8-12.3	T12.3-8 [Am-66](Sht. 6) Modify setpoint bases. The monitor cannot differentiate between spurious safety injection or steam line break and a Loss of Coolant Accident (LOCA). The HRRMs are Reg. Guide 1.97 E1 variables which should be used for detection of significant releases assessment, long-term surveillance, and emergency plan actuation.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
12.3.3	3	12.3-1-12.3.3	12.3-45, -46 [Am-59] Revises FSAR Section 12.3.3.5 to conform to R.G. 1.140 in addition to the existing commitment to conform to R.G. 1.52.	Revision
12.3.3	4	12.3-2-12.3.3	12.3-46 [AM-59] Distinguishes Regulatory guidance conformance for ESF and non-ESF atmosphere cleanup units.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
12.3.4	4	12.3-3-12.3.4	12.3-47 [Am-66] Airborne monitors do not control diversion valves. They only control isolation valves.	Clarification
12.3.4	4	12.3-4-12.3.4	12.3-48 [Am-66] Control Room deleted from list since monitoring of Control Room air is provided by mobile monitors. Fixed airborne monitoring is provided for Control Room Intake Air.	Clarification
12.3.4	4	12.3-5-12.3.4	12.3-49 and 12.3-50 [Am-66] Revised to reflect design changes and delete unnecessary information.	Clarification
12.3.4	4	12.3-6-12.3.4	12.3-58 [Am-66] Removes reference to "calibrator box". CPSES does not use a "calibrator box".	Clarification
12.3.4	4	12.3-7-12.3.4	12.3-59 [Am-66] Deletes current accuracy statement. The overall system accuracy is required as acceptance criteria, rather than subcomponent accuracy.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
12.5	2	12.5-14-12.5	T12.5-2 [AM-56] Changes information in table to reflect actual radiation protection equipment. Also deletes sensitivity from table. DISCUSSED IN SER/SUPPLEMENTS FSAR/AMENDMENT.	Correction
12.5	4	12.5-1-12.5	Sec. 12.5 [Am-66] Administrative changes of titles and responsibilities to reflect the current Nuclear Operations Organization.	Editorial
12.5	4	12.5-2-12.5	12.5-1 [Am-59] Clarifies that both the Radiation Protection Advisor and the Radiation Protection Supervisor are available to provide backup responsibilities for the Radiation Protection Engineer.	Clarification
12.5	4	12.5-3-12.5	12.5-2 [Am-56] Clarifies responsibilities of the Radwaste Transportation Coordinator.	Clarification
12.5	4	12.5-4-12.5	12.5-2 [Am-59] Deletes reference to qualifications and experience of the Radwaste Transportation Coordinator in FSAR Section 13.1.	Clarification
12.5	4	12.5-5-12.5	12.5-3, -4 [Am-56] a. Clarifies unescorted access limitations of visiting and contract individuals pending completion of training program. b. Clarifies locations, specifications and calibration of portable and non-portable radiation detection equipment.	Clarification
12.5	4	12.5-6-12.5	12.5-5, -6 [AM-56] Clarifies locations, specifications and calibration of portable and non-portable radiation detection equipment.	Clarification
12.5	4	12.5-7-12.5	12.5-8 [Am-56] Clarifies the process at Point 6 of the respiratory protective equipment issue station attendant verifying worker's qualification is current prior to issuing the appropriate respiratory equipment.	Clarification
12.5	4	12.5-8-12.5	12.5-9 [Am-56] Deletes reference to standard features (i.e. desks, tables, etc.) normally located in a radiation protection office.	Clarification
12.5	4	12.5-9-12.5	12.5-12, -13 [Am-55] Clarifies that an automatic TLD Reader will be located in the Personnel Dosimetry Processing Facility instead of the OSC.	Clarification
12.5	4	12.5-10-12.5	12.5-13 [Am-56] Changes statement from "...samples from suspected individuals..." to "...samples from selected individuals...".	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
12.5	4	12.5-10-12.5	12.5-14 [Am-56] Changes statement from "...anticipated types and levels of radioactivity..." to "...anticipated types of radiation and levels of radioactivity...".	Editorial
12.5	4	12.5-11-12.5	12.5-16 [Am-55] Clarifies the use of RWPs for non-routine specific activities where radiation levels are significant and subject to fluctuation.	Clarification
12.5	4	12.5-12-12.5	12.5-16 [Am-55] Changes statement from "...for non-routine activities..." to "...for non-routine specific, activities...".	Editorial
12.5	4	12.5-13-12.5	12.5-18 [Am-56] Clarifies unescorted access of visiting and non-permanent personnel pending completion of training.	Clarification

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SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification

Total Records Processed : 36

TU Electric FSAR Change Review

Chapter 12

EVALUATIONS SUMMARY BY ALPHA DESIGNATOR

ALPHA	GROUPS 1	2	3	4	TOTAL
		3	2	29	34
A		1	1		2
Totals :		4	3	29	36
Factored Totals :		4	3	29	36

TU Electric FSAR Change Review Information

EVALUATIONS SUMMARY BY GROUP

Chapter : 12

SER	GROUPS 1	2	3	4	TOTAL
12.01.1				3	3
12.02.0		2	2	6	10
12.03.0		1			1
12.03.3			1	1	2
12.03.4				5	5
12.05.0		1		14	15
TOTAL :		4	3	29	36

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
13	2	1AB-2-13	1A.B)-4 [Am-59] Updates commitment to R.G. 1.8 except as delineated in FSAR section 13.1.3.1.	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
13.1	2	13.1-19-13.1-C	13.1-5, 13.1-7 and 13.1-10 [Am-68] Changes organization to form the Test Department; consolidate and re-assign testing and startup responsibilities and activities.	Update
13.1	2	13.1-23-13.1	13.1-7 [Am-60] Substitutes "Vice President, Administration" for "Vice President". Contains changes which reflect the responsibilities of the Vice President, Administration.	Update
13.1	2	13.1-94 -13.1-C	13.1-3 [Am-68] Organizational change to form the Test Department; consolidate and re-assign testing and startup responsibilities and activities. (See also 13.1-19-13.1-C)	Update
13.1	3	13.1-15-13.1	13.1-5 [Am-60] Changes the text to reflect the responsibilities of the Vice President, Nuclear Operations.	Update
13.1	3	13.1-17-13.1	13.1-6 [Am-60] Changes the text to reflect the responsibilities of the Manager, Plant Operations.	Update
13.1	3	13.1-18-13.1	13.1-6 [Am-60] Changes the text to reflect the responsibilities of the Director, Nuclear Training.	Update
13.1.2	3	13.1-66-13.1-C	13.1-58, 13.1-59, 13.1-61, 13.1-63, 13.1-65, and 13.1-66 [Am-68] Changes organization to form the Test Department; consolidate and re-assign testing and startup responsibilities and activities. (Evaluation provided under no. 13.1-19-13.1-C)	Update
13.1.2	3	13.1-86-13.1-C	T13.1-1 [Am-68](Sht. 2) Adds the Manager, Startup and Test qualifications.	Update
13.1	4	13.1-1-13.1	13.1-1 [Am-62] (Entire Section) Amends discussion to reflect new company name and company division titles. Revises position titles and organizational relationships to reflect organizational changes (as shown in amended Figures 13.1-2 and 13.1-3). (This evaluation covers the generic organizational change; individual specific changes are evaluated separately.)	Update
13.1	4	13.1-2-13.1	13.1-1 [Am-60] Provides distinction between the TUGCO fossil and nuclear groups and defines the general scope of the new TUGCO Nuclear Engineering and Operations (NEO) Group. Only a description of the fossil group is added.	Update

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SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
13.1	3	13.1-3-13.1	13.1-1/2 [Am-64] Eliminates the word "division" which does not apply to organizations within the NEO group.	Editorial
13.1	4	13.1-4-13.1	13.1-1 [Am-62] Changes the opening to Section 13.1.1.1.1 to show that the responsibilities of the Engineering and Construction Division are being described. (Includes deletion of "Responsibilities of Engineering and Construction.)	Clarification
13.1	4	13.1-5-13.1	13.1-2 [Am-64] Changes the responsible organizations to the NEO divisions.	Update
13.1	4	13.1-6-13.1	13.1-2 [Am-62] Engineering and Construction are responsible for developing "technical information for" SARs, etc., rather than developing SARs.	Clarification
13.1	4	13.1-7-13.1	13.1-3 [Am-60] Substitutes "Nuclear Operations" for "TUGCO Nuclear Operations".	Editorial
13.1	4	13.1-8-13.1-C	13.1-3 [Am-60] Deletes the position of Director of Start-up. The Manager, Start-up has assumed responsibility for the start-up and test program.	Update
13.1	4	13.1-9-13.1	13.1-3 [Am-60] Changes the description of where technical services and back-up support for Nuclear Operations can be obtained within TUGCO.	Clarification
13.1	4	13.1-10-13.1	13.1-4 [Am-60] Changes the format for the responsibilities of the Executive Vice President, NEO.	Editorial
13.1	4	13.1-12-13.1	13.1-4 [Am-64] Changed to eliminate the word "division" which does not apply to organizations within the NEO group.	Editorial
13.1	4	13.1-13-13.1	13.1-4 [Am-62] Revises the text to show that the Quality Assurance Plan is provided as applicable to all nuclear activities. Deletes the redundant words "the requirements of" from the ORC discussion.	Clarification
13.1	4	13.1-14-13.1	13.1-5 [Am-60] Changes the format for the responsibilities of the Manager, Safeteam.	Editorial
13.1	4	13.1-16-13.1	13.1-5 [Am-62] Amends discussion to reflect new company name and company division titles. Revises position titles and organizational relationships	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			to reflect organizational changes (as shown in amended Figures 13.1-2 and 13.1-3).	
13.1	4	13.1-20-13.1	13.1-7 [Am-56] Clarifies title and responsibilities for the Executive Vice President, Nuclear Operations (Superseded in Am- 60).	Clarification
13.1	4	13.1-21-13.1-C	13.1-6 [Am-50] Deletes the position of Director of Start-up.	Update
13.1	4	13.1-22-13.1-C	13.1-7 [Am-60] Changes the text to reflect the responsibilities of the Manager, Start-up. Changed to Manager, Startup and Test by Am-68. (See also evaluation no. 13.1-99-13.1-C)	Update
13.1.2	4	13.1-89-13.1-C	F13.1-2 [Am-68] Organizational change to form the Test Department; consolidate and re-assign testing and startup responsibilities and activities. Revises figure to incorporate recent TU Electric Organizational changes.	Update
13.1	4	13.1-92-13.1	13.1-4 [Am-60] Deletes the unnecessary words "corporate" and "administrative".	Editorial
13.1	4	13.1-98-13.1	13.1-5 [Am-60] Changes the text to reflect the responsibilities of the Superintendent Support Services.	Update
13.1.2	4	13.1-99-13.1-C	13.1-74 and 75 [Am-60] Moves Manager, Startup resume from Section 13.1.1 to 13.1.2 and changes title to Manager, Startup and Test in Am-68.7.	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
13.1.1	2	13.1-24-13.1.1	13.1-8 [Am-60] Changes the text to reflect the responsibilities of the Health Physics Supervisor.	Update
13.1.1	2	13.1-37-13.1.1	3.1-13 [Am-60] Changes the text to reflect the responsibilities of the Manager, Quality Assurance.	Update
13.1.1	2	13.1-38-13.1.1	3.1-11 [Am-60] Changes the text to reflect the responsibilities of the Manager, Quality Control.	Update
13.1.1	2	13.1-47-13.1.1	13.1-17 [Am-57] Submits resume' of A. Scott, Vice President of Nuclear Operations.	Update
13.1.1	2	13.1-56-13.1.1	13.1-37 and -38 [Am-60] Provides resume' for the new position of Director, Reactor Engineering.	Update
13.1.1	3	13.1-29-13.1.1	13.1-9 [Am-60] Changes the text to reflect the responsibilities of the Vice President, Engineering and Construction.	Update
13.1.1	3	13.1-31-13.1.1.-B	13.1-9 [Am-60] Changes the text to reflect the responsibilities of the Director of Construction; Director of Engineering; and the new position of Director of Projects. Change expands the scope to include responsibility for Unit 1 Construction. (See also evaluation no. 13.1-30-13.1.1.)	Update
13.1.1	3	13.1-34-13.1.1	13.1-12 [Am-60] Changes the text to reflect the responsibilities of the Manager, Nuclear Licensing.	Update
13.1.1	3	13.1-36-13.1.1-A	13.1-12 [Am-60] Changes the text to reflect the responsibilities of the new position of Director, Reactor Engineering. This position evolved from Manager, Nuclear Fuel Services. (See evaluation no. 13.1-35-13.1.1-A)	Update
13.1.1	3	13.1-39-13.1.1	3.1-11 [Am-60] Changes the text to reflect the responsibilities of the new position of Manager, Operations QA. The previous position of Operations Quality Assurance Supervisor (who reported to the manager, Plant Operations) was deleted in favor of the new position of Manager, Operations QA (who reports to the Director, Quality Assurance).	Update
13.1.1	4	13.1-25-13.1.1	13.1-8 [Am-60] Changes the text to reflect the responsibilities of the Supervisor, Engineering and Administrative Services. Changes title to Engineering	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			and Adminstrative Services Manager in Am-62.	
13.1.1	4	13.1-26-13.1.1	13.1-9 [Am-60] Restructures discussion regarding the responsibilities of the Vice President, Administration.	Update
13.1.1	4	13.1-27-13.1.1	13.1-7 [Am-60] Changes the text to reflect the responsibilities of the new position of Project Engineer, Nuclear.	Update
13.1.1	4	13.1-28-13.1.1	13.1-9 [Am-60] Changes the text to reflect the responsibilities of the new position of Project Manager, Records.	Update
13.1.1	4	13.1-30-13.1.1-B	13.1-10 [Am-60] Deletes the position of Project Manager - Unit 1. His functions are assigned to the Director of Construction. (See evaluation no. 13.1-31-13.1.1-B.)	Update
13.1.1	4	13.1-32-13.1.1	13.1-9, 10 [Am-64] Eliminates the word "division" which does not apply to organizations within the NEO group.	Update
13.1.1	4	13.1-33-13.1.1	13.1-11 [Am-60] Substitutes "Vice President, Nuclear Engineering" for "Vice President". Contains changes which reflect the responsibilities of the Vice President, Nuclear Engineering.	Update
13.1.1	4	13.1-35-13.1.1-A	13.1-10 [Am-60] Removes discussion of the Manager, Nuclear Fuel Services from the FSAR. This position is replaced by Director, Reactor Engineering. (See evaluation no. 13.1-36-13.1.1-A.)	Update
13.1.1	4	13.1-40-13.1.1	3.1-12 [Am-62] Deletes "as well as with the TUGCo Quality Assurance Program." Development of a licensing issue position does not come under the purview of the QA Program.	Revision
13.1.1	4	13.1-41-13.1.1	3.1-12 [Am-62] Adds the word "nuclear" to show that the responsibility described is for nuclear safety analyses.	Update
13.1.1	4	13.1-42-13.1.1	13.1-14 [Am-60] Substitutes "Vice President, Support" for "Vice President Nuclear Support". Contains changes which reflect the responsibilities of the Vice President, Support.	Update
13.1.1	4	13.1-43-13.1.1	13.1-13, 14 [Am-62] Relocates the description of the responsibilities for Manager, Operations QA, that were previously described elsewhere.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
13.1.1	4	13.1-44-13.1.1	13.1-14 [Am-62] Revises text to clarify that the resumes of NEO personnel follow.	Clarification
13.1.1	4	13.1-45-13.1.1	13.1-15 thru -46 [Am-59] Makes changes to existing resumes or submits new resumes to reflect existing organization.	Update
13.1.1	4	13.1-46-13.1.1	13.1-15 and -16 [Am-56] Clarifies title for W.G. Council.	Clarification
13.1.1	4	13.1-48-13.1.1	13.1-19 and -20 [Am-60] Substitutes "Vice President. Administration" for "Vice President". Contains changes which reflect current membership activities.	Update
13.1.1	4	13.1-49-13.1.1	13.1-21 [Am-60] Substitutes "Vice President, Support" for "Vice President, Nuclear Support".	Update
13.1.1	4	13.1-50-13.1.1	13.1-20 [Am-60] Clarifies areas of responsibility for J. Kuykendall, Vice President. Deletes unnecessary discussion of responsibilities on resume.	Clarification
13.1.1	4	13.1-51-13.1.1	13.1-22 [Am-60] Substitutes "Vice President, Nuclear Engineering" for "Vice President". Deletes unnecessary discussion of the responsibilities on resume'. Adds 1985 assignment to resume'.	Update
13.1.1	4	13.1-52-13.1.1	13.1-26 [Am-60] Substitutes "Director, Quality Assurance" for "Director of Quality Assurance".	Update
13.1.1	4	13.1-53-13.1.1	13.1-27 [Am-60] Corrects description of TUGCO job position.	Update
13.1.1	4	13.1-54-13.1.1	13.1-27 [Am-60] Changes the text to show the Manager, Quality Assurance as a TUGCO employee.	Update
13.1.1	4	13.1-55-13.1.1	13.1-31 [Am-60] Changes the text to show the Manager, Quality Control as a TUGCO employee.	Update
13.1.1	4	13.1-57-13.1.1-A	13.1-32 and -33 [Am-60] Removes resume' of the Manager, Nuclear Fuel Services from the FSAR. This position title changed to Director, Reactor Engineering. (See evaluation no. 13.1-35-13.1.1-A.)	Update
13.1.1	4	13.1-58-13.1.1	13.1-39 and -40 [Am-60] Changes the text to reflect the continued education of the Health Physics Supervisor and to reflect current membership activities.	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
13.1.1	4	13.1-59-13.1.1	13.1-38 and -39 [Am-60] Provides resume' for the Manager, Start-up.	Update
13.1.1	4	13.1-60-13.1.1	13.1-43,44 and 45 [Am-60] Provides resume' for the new position of Director, Nuclear Services.	Update
13.1.1	4	13.1-61-13.1.1	13.1-46 and -47 [Am-60] Provides resume' for the new position of Project Engineer, Nuclear.	Update
13.1.1	4	13.1-62-13.1.1	13.1-48,49 and 50 [Am-60] Provides resume' for the new position of Project Manager, Records.	Update
13.1.1	4	13.1-63-13.1.1	13.1-50 [Am-60] Deletes resume' of the previous Director of Construction (who also served as the Director of Start-up).	Update
13.1.1	4	13.1-64-13.1.1	13.1-50 [Am-60] Deletes resume' of the old position of Project Manager, Unit 1.	Update
13.1.1	4	13.1-82-13.1.1	13.1-30 and 31 [Am-55] Adds resume' of P. E. Halstead.	Update
13.1.1	4	13.1-93-13.1.1	13.1-9 [Am-60] Changes the text to reflect the responsibilities of the new position of Director, Nuclear Services.	Update
13.1.1	4	13.1-95-13.1.1	13.1-35 and 13.1-36 [Am-68] Provides resume for new TU Electric Personnel assignments. Adds resum of R. D. Walker as Manager, Nuclear Licensing.	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
13.1.2	2	13.1-73-13.1.2	13.1-66 [Am-62] Revises the discussion regarding supervisor succession based on organizational changes.	Update
13.1.2	2	13.1-78-13.1.2	13.1-79 [Am-64] Submits new resume for J. W. Donahue, Operations Manager.	Update
13.1.2	2	13.1-97-13.1.2	13.1-71 [Am-64] Submits new resume for TU Electric personnel J.J. Kelley, Jr., Manager Plant Operations.	Addition
13.1.2	4	13.1-67-13.1.2	13.1-58 [Am-60] Clarifies that the Mgr., Plant Operations responsibilities by adding "In addition to the responsibilities for the plant operation and maintenance, the Mgr., Plant Operations (see Section 13.1.1.2.1) is chairman of the SORC.	Clarification
13.1.2	4	13.1-68-13.1.2	13.1-59, 61 [Am-68] Changes "...in the coordinated initial start-up test program..." to "in the start up test program...".	Clarification
13.1.2	4	13.1-69-13.1.2	13.1-59 [Am-62] Revises text to more clearly describe the responsibilities of the Shift Supervisors.	Clarification
13.1.2	4	13.1-70-13.1.2	13.1-60 [Am-62] Revises text to more clearly describe the responsibilities of the Assistant Shift Supervisors, Reactor Operators, Auxiliary Operators, Shift Technical Advisors, and Radwaste Coordinator.	Update
13.1.2	4	13.1-71-13.1.2	13.1-62 [Am-62] Revises and expands the Preventive Maintenance Program description.	Clarification
13.1.2	4	13.1-72-13.1.2	13.1-65 [Am-64] The word "computer" erroneously omitted in Amendment 62.	Editorial
13.1.2	4	13.1-74-13.1.2	13.1-69 [Am-59] Expands minimum qualification requirements per Q421.11, Q421.53 and Q422.9	Clarification
13.1.2	4	13.1-75-13.1.2	13.1-70 [Am-62] Revises the description of the RPM and RPA to better describe their relationship.	Clarification
13.1.2	4	13.1-76-13.1.2	13.1-76 [Am-62] Changes B. T. Lancaster resume title from "Administrative Superintendent" to "Mgr., Plant Support".	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
13.1.2	4	13.1-77-13.1.2	13.1-78 [Am-59] Submitted resume of P. M. Bozeman, Chemistry and Environmental Engineer. Updated to Manager in Am-62.	Update
13.1.2	4	13.1-79-13.1.2	13.1-81, 83 [Am-62] Changes B.B. Taylor's title from "Maintenance Superintendent" to "Maintenance Manager".	Clarification
13.1.2	4	13.1-80-13.1.2	13.1-84 [Am-62] Submits E. J. Schmitt's resume'. Changes E. J. Schmitt's Title from Radiation Protection Engineer to Radiation Protection Manager in Am-62	Update
13.1.2	4	13.1-81-13.1.2	13.1-85 [Am-62] Changes L. G. Barnes title from "Operations Supervisor" to "Shift Operations Manager".	Update
13.1.2	4	13.1-83-13.1.2	13.1-86, 87 [Am-60] Submits resume of J. Allen Operation Engineer.	Update
13.1.2	4	13.1-84-13.1.2	13.1-86, -87 [Am-62] Changes J. Allen's title from "Operation Engineer" to "Operations Engineering Manager".	Update
13.1.2	4	13.1-85-13.1.2	T13.1-1 [Am-62](Sht. 1, 2) Changes table format which results in a two page table.	Editorial
13.1.2	4	13.1-87-13.1.2	T13.1-2 [Am-60] New format.	Editorial
13.1.2	4	13.1-88-13.1.2	F13.1-1 [Am-62] Amends discussion to reflect new company name and company division titles. Revises position titles and organizational relationships to reflect organizational changes (as shown in amended Figures 13.1-2 and 13.1-3)	Update
13.1.2	4	13.1-90-13.1.2	F13.1-3 [Am-62] Revises figure to incorporate recent TU Electric organizational changes.	Update
13.1.2	4	13.1-91-13.1.2	13.1-72 [Am-62] Updates resume to reflect M. Blevins as Mgr. Technical Support instead of Engineering Mgr; deletes "present" from "Assigned to position..."; adds "1987 assigned as Mgr. Technical Support, CPSES".	Clarification
13.1.2	4	13.1-96-13.1.2	13.1-80 [Am-64] Deletes Results Engineering Manager resume, position currently open.	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
13.1.2	4	13.2-7-13.1.2	13.2-12 [Am-55] Changes Fire Protection Plan to Fire Protection Procedures.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
13.2.1	2	13.2-3-13.2.1	13.2-10, -11 [Am-62] a) Chnges heading from "Chemistry and Environmental Training" to "Chemistry Training"; deletes discussion on environmental personnel to address chemistry personnel only. b) Deletes specific training information regarding previous Chemistry and Environmental Engineer.	Revision
13.2.1	4	13.2-1-13.2.1	13.2-8 [Am-62] Deletes specific training information regarding the previous Radiation Protection Engineer; changes "All radiation protection technicians..." to "All radiation protection personnel..."	Update
13.2.1	4	13.2-2-13.2.1	13.2-10 [Am-62] Deletes specific training information regarding the previous Superintendent, Operations Support.	Update
13.2.1	4	13.2-5-13.2.1	13.2-12 [Am-62] Program names are "General Employee Training" and "Radiation Protection Program" not "General Station Training" and "Radiological Health and Safety Program".	Correction
13.2.1	4	13.2-6-13.2.1	13.2-12 [Am-62] Restructures discussion regarding the training required for unescorted access.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
13.4.1	2	13.4-2-13.4.1-D	13.4-1 and -2 [Am-65] Revises the descrition of the SORC membership to be consistent with the proposed draft Technical Specification of 10/30/87. (See 13.4-3-13.4.1)	Update
13.4.1	3	13.4-3-13.4.1-D	13.4-2 [Am-68] Adds Test (department) to the SORC group. (See 13.4-2-13.4.1)	Update
13.4.1	4	13.4-1-13.4.1	13.4-1 [Am-55] Adds "changes of station administrative procedures" to onsite review discussion.	Clarification
13.4.1	4	13.4-4-13.4.1	13.4-3 [Am-55] Clarifies approval for changes in SORC organization or conduct of operation.	Clarification
13.4.1	4	13.4-5-13.4.1	13.4-3 [Am-55] Changes SORC membership designation from the Manager, Plant Operations to the SORC Chairman.	Clarification
13.4.1	4	13.4-6-13.4.1	13.4-3 and -4 [Am-55] Clarifies items that are subject to SORC Review.	Clarification
13.4.1	4	13.4-7-13.4.1	13.4-4 [Am-68] Replaces "Initial Startup Program..." to "Review Test Program Activities".	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
13.4.2	4	13.4-8-13.4.2	13.4-4 and -5 [Am-65] Changes to reflect the current TU Electric organization and organizational names.	Update
13.4.2	4	13.4-9-13.4.2	13.4-5 [Am-55] Adds membership limitations to ORC membership to a maximum of nine.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
13.5	4	13.5-1-13.5	13.5 [Am-65] Entire Section Changes to reflect the current TU Electric organization and organizational names	Update
13.5	4	13.5-2-13.5	13.5-2 and -3 [Am-55] Clarifies review responsibilities for specific plant procedures. (Superceded by Am-65).	Clarification
13.5	4	13.5-3-13.5.	13.5-3 [Am-65] Eliminates exclusion on the review of Station Administration Procedures with regard to review by a second individual.	Update
13.5	4	13.5-4-13.5	13.5-3 [Am-65] Clarifies the discussion on how changes to quality procedures are reviewed and approved.	Update
13.5	4	13.5-5-13.5	13.5-5 [Am-59] Adds "and defines the area of applicability of position C.1.n of R.G. 1.29 (See Appendix 1A(B)).	Clarification
13.5	4	13.5-6-13.5	13.5-5 [Am-55] Clarifies administrative controls of temporary modifications.	Clarification
13.5	4	13.5-7-13.5-C	13.5-5 [Am-68] Deletes development and implementation responsibilities for the Initial Startup Test program from the startup department. These responsibilities are now assigned to the Test department as described in Section 13.5.2.2.10.	Update
13.5	4	13.5-8-13.5	13.5-5 [Am-68] Adds Test to list of departments responsible for developing and implementing surveillance procedures. (See also 13.5-9-13.5.1)	Update
13.5	4	13.5-10-13.5	13.5-10 [Am-65] Changes "Maintenance Superintendent" to "Maintenance Manager".	Clarification
13.5	4	13.5-11-13.5-C	13.5-10 [Am-68] Changes title of Manager, Startup to Manager, Startup and Test.	Update
13.5	4	13.5-12-13.5	13.5-11, 12, 14 [Am-65] Changes to reflect the current TU Electric organization and organizational names.	Update
13.5	4	13.5-13-13.5-C	13.5-14 [Am-68] Adds Section 13.5.2.2.10 to establish procedural responsibilities for the new Test Department.	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
13.5	4	13.5-14-13.5	T13.5-7 [Am-65] Revises the table on Emergency Preparedness procedures to indicate that emergency equipment calibration is the responsibility of the Radiation Protection Department.	Clarification
13.5	4	13.5-15-13.5	13.5-10 [Am-65] Clarifies responsibilities of I & C Manager to implement a maintenance program for safety related instrumentation and controls.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
13.5.1	4	13.5-9-13.5.1	13.5-6 [Am-65] Clarifies that the plant operations departments and technical support departments will develop and establish administrative procedures instead of the maintenance and engineering departments.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
13.5.5	2	13.5-1-13.5.5	Section 13.5 [Am-65] Changes to reflect the current TU Electric organization and organizational names.	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
13.6	4	13.6-1-13.6	13.6-1 [Am-57] Changes heading and text from "Industrial Security" to "Security". Provides update to site security organization.	Clarification
13.6	4	13.6-2-13.6	13.6-1,2 [Am-65] Changes to reflect the current TU Electric organization and organizational names.	Update
13.6	4	13.6-4-13.6	13.6-1, 2 [Am-57] Clarifies that Executive Vice President has all responsibility to CPSES not just corporate; clarifies discussion on joint utilization of a plant security group and a contract security force.	Clarification
13.6	4	13.6-5-13.6	13.6-2, -5 and -6 [Am-65] Changes to reflect the current TU Electric organization and organizational names.	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
13.7.1	4	13.2-4-13.7.1	13.2-11 Changes "Operations Manager" to "Operation Superintendent" in the list of those receiving the initial training program.	Clarification

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SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification

Total Records Processed : 134

Chapter 13

EVALUATIONS SUMMARY BY ALPHA DESIGNATOR

ALPHA	GROUPS 1	2	3	4	TOTAL
		12	6	97	115
A			1	2	3
B			1	1	2
C		2	2	8	12
D		1	1		2
Totals :		15	11	108	134
Factored Totals :		14	10	100	124

TU Electric FSAR Change Review Information

EVALUATIONS SUMMARY BY GROUP

Chapter : 13

SER	GROUPS 1	2	3	4	TOTAL
13.00.0		1			1
13.01.0		3	5	21	29
13.01.1		5	5	34	44
13.01.2		3		22	25
13.02.1		1		4	5
13.04.1		1	1	5	7
13.04.2				2	2
13.05.0				14	14
13.05.1				1	1
13.05.5		1			1
13.06.0				4	4
13.07.1				1	1
TOTAL :		15	11	108	134

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
14	2	14.1-1-14	14.2-1, 14.2-3 thru 14.2-23, 14.2-25 and 14.2-30 [Am-68] Changes organization to form the Test Department to consolidate and re-assign testing/startup responsibilities and activities.	Update
14	2	14.2-20-14	T14.2-2 [Am-66](Sht. 2) Adds "Reactor Vessel Water Level Indication System Test Summary" to specify required preoperational testing for the added system. Replaced "Incore Thermocouples" with "Saturation Margin Monitor.	Update
14	2	14.2-21-14	T14.2-2 [Am-66](Sht. 29a) Revises the test method to demonstrate the performance of the ESF pump room coolers. The original test method may not have demonstrated adequate ventilation in the ESF pump rooms because of the possibility of not achieving design heat loads during Hot Functional testing.	Revision
14	2	14.2-22-14-A	T14.2-2 [Am-68](Shts. 35a and 35b) Revises the test requirements to reflect the new startup transformer installation (Amendment 66). There is no longer a condition which overloads the Class 1E startup transformers. The deleted test was a design test made at the factory on a representative apparatus.	Revision
14	2	14.2-25-14	T14.2-2 [Am-66](Shts. 46 and 46a) Replaces "Incore Thermocouples Test Summary" with "Saturation Margin Monitor Test Summary" to specify required preoperational testing for added equipment.	Update
14	2	14.2-27-14	T14.2-3 [Am-65](Sht. 28) Section 5.nn of Appendix A to R.G. 1.68 (Revision 2) requires that the plant dynamic response be tested, but does not require cooldown to <350oF or "Hot Shutdown." Westinghouse guideline TBX/TCX-SV-2.4.9, "Plant trip from 100% Power," also does not require a cooldown. Therefore, the plant should be maintained at "Hot Standby" subsequent to performance of the test, until returned to power. Cooling down to "Hot Shutdown" would be an unnecessary and time consuming evolution. (See 1A(B), R.G. 1.68.)	Update
14	2	14.2-31-14	F14.2-1 [Am-68] Changes organization to form the Test Department to consolidate and re-assign testing and startup responsibilities and activities.	Update
14	2	14.2-35-14	T14.2-2 [Am-66](Shts. 61 and 62) Adds "Reactor Vessel Water Level Indication System Test Summary" to specify required preoperational testing for added system.	Update
14	2	14.2-37-14	F14.2-2 [Am-68] Changes organization to form the Test Department to consolidate and re-assign testing and startup responsibilities and activities.	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
14	2	14.2-43-14	T14.2-3 [Am-66](Shts. 1, 20 and 27) TU Electric Nuclear Operations does not intend on performing the pseudo rod drop, pseudo rod ejection and below bank rod tests referenced in Regulatory Guide 1.68, Revision 2, Appendix A, Sections 4c, 5e, 5f and 5i. The justification for not conducting these tests includes the following: Previous tests on similar facilities indicates little new information is generated by the performance of these tests. Recent industry experience indicates that there is increased potential for causing severe xenon transients by performing these tests. The duration and cost of the physics testing program are reduced by not performing these tests. In addition, Westinghouse has indicated that performance of the 50% power pseudo dropped rod test could lead to a violation of the F-delta-H Technical Specifications.	Update
14	3	14.2-18-14	14.2-24 [Am-59] Deletes inclusion of Regulatory Guide 1.80 from test program guidance since Instrument Air System is not safety related.	Revision
14	3	14.2-23-14	T14.2-2 [Am-59](Sht. 35) Deletes the use of "fast" transfer from preferred off-site power to alternate off-site power.	Correction
14	4	14.0-1-14	14-i thru 14-iv and Sec. 14.2 [Am-62] Change in page numbers. Update: Substitutes "Vice President, Nuclear Operation" for "Manager, Nuclear Operations", "Manager, Startup" for "Startup Manager", "Manager, Technical Support" for "Engineering Superintendent", "Operations Manager" for " Operations Superintendent", and "Maintenance Manager" for "Maintenance Superintendent" to reflect new organizational change.	Update
14	4	14.0-2-14	14-iv 14-v [Am-63] These pages are reissued to correct the page number discrepancy created in Amendment 62.	Editorial
14	4	14.2-2-14	14.2-2 [Am-57] References quality related items identified in Table 17A-1.	Clarification
14	4	14.2-3-14	14.2-4 [Am-56] Changes "is" to "are". (Superceded in Amendment 68).	Editorial
14	4	14.2-4-14	14.2-5 and -6 [Am-56] Clarifies additional startup responsibilities for CPSES Startup Mgr. (Superceded in Amendment 68).	Clarification
14	4	14.2-5-14	14.2-5 [Am-60] Shows Start-up personnel as a member of the Joint Test Group. (Superceded in Amendment 68.)	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
14	4	14.2-6-14	14.2-5 [Am-60] Changes "Manager, CPSES Start-up" to "Manager, Start-up". (Superceded in Amendment 68.)	Update
14	4	14.2-7-14	14.2-6 [Am-56] Clarifies responsibilities of Lead Startup Engineer. (Superceded in Amendment 68).	Clarification
14	4	14.2-8-14	14.2-8 [Am-60] Removes reference to "Manager, Nuclear Operation" and replaces with "Vice President, Nuclear Operations" to reflect present organization. Also, removes Vice President, Nuclear Operations from Joint Test Group (JTG).	Update
14	4	14.2-9-14	14.2-8 [Am-60] Shows Manager, Plant Operations to be JTG Chairman. Removes responsibility regarding review of preoperational test procedures which is reassigned to the Engineering Superintendent as noted in description of 14.2-9 [Am-60] below. (Superceded in Amendment 68)	Update
14	4	14.2-10-14	14.2-9 [Am-56] Adds "when required" to statement. (Superceded in Amendment 62.)	Editorial
14	4	14.2-11-14	14.2-9 [Am-60] Shows Engineering Superintendent to be the Vice Chairman of JTG and coordinator for the review of all preoperational test procedures. (Superceded in Amendment 68.)	Update
14	4	14.2-12-14	14.2-10 [Am-60] Removes "TUGCO" from title (was TUGCO Engineering and Construction).	Editorial
14	4	14.2-13-14	14.2-11 [Am-60] Westinghouse, as a vendor, supplies technical support versus direction to TUGCO.	Clarification
14	4	14.2-14-14	14.2-13 [Am-56] a. Deletes reference to "Manager, Nuclear Operations" and replaces with "Vice President, Nuclear Operations". b. Deletes TUGCO from JTG representatives. (Superceded in Amendment 68).	Update
14	4	14.2-15-14	14.2-13 and -14 [Am-63] Revision date and/or amendment number added to each of these sheets. (Superceded in Amendment 68).	Editorial
14	4	14.2-16-14	14.2-13 [Am-60] Changes reflect JTG membership present organization: 1) "Manager, Nuclear Operations" to Manager, Plant Operations".	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			2) "Manager, CPSES Start-up" to "Manager, Start-up". 3) "Manager, Plant Operations" to "Engineering Superintendent". 4) "Assistant Manager, Nuclear Engineering" to "Director of Engineering". (Superceded in Amendment 68).	
14	4	14.2-17-14	14.2-25 [Am-60] Deletes "Manager, Nuclear Operations" and replaces with "Vice President, Nuclear Operations". (Superceded in Amendment 68)	Update
14	4	14.2-19-14	T14.2-2 [Am-66] The table is reissued due to the change in number of pages of the table.	Editorial
14	4	14.2-24-14	T14.2-3 [Am-66](Sht. 18) Adds question Q0.C 18 to margin of Test Method Section.	Editorial
14	4	14.2-26-14	T14.2-2 [Am-56](Shts. 50, 50A) Deletes inclusion of bypass valves previously used in conjunction with isolation valves.	Clarification
14	4	14.2-28-14	T14.2-2 [Am-66](Sht. 57) The objective is re-worded to explicitly define the scope of vibration testing and eliminate the ambiguity previously presented.	Clarification
14	4	14.2-29-14	F14.2-1 [Am-60] Reflects new start-up organization.	Update
14	4	14.2-30-14	T14.2-2 [Am-66](Sht. 57) The prerequisite for testing is clarified to reflect the piping locations selected for measurement are in place before the commencement of vibration testing.	Clarification
14	4	14.2-32-14	F14.2-1 [Am-65] Provides current Start-Up Organization and Operating Staff. (Superceded in Amendment 68).	Update
14	4	14.2-33-14	T14.2-2 [Am-68](Sht. 57) Clarifies acceptance criteria section to accurately reference applicable section in 3.9B that provide more information concerning acceptable vibration levels for piping and components that will undergo Operational Vibration testing.	Clarification
14	4	14.2-34-14	F14.2-2 [Am-56] Provides current Joint Test Group Organization. (Superceded by Amendment 68).	Update
14	4	14.2-36-14	F14.2-2 [Am-60] Reflects changes made to Section 14.2.2.5 regarding JTG membership.	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
12	4	14.2-38-14	212-111 [Am-60] Provides the current FSAR/Reference for the alternative test description in Table 14.2-2 (Sheet 15) (Section 14.2.7 does not contain the referenced information).	Editorial
14	4	14.2-39-14	T14.2-3 [Am-65] Full table reissued with new format.	Editorial
14	4	14.2-40-14	372-14, 54 and 55 [Am-66] Clarifies discussion on the meteorological system that was modified per Regulatory Guide 1.23 (Proposed Rev. 1). The temperature redundant measurement at the primary meteorological tower is now obtained from sensors at 10 and 60 meters.	Clarification
14	4	14.2-41-14	T14.2-3 [Am-65](Shts. 1 and 17) Corrects the title "POWER DEFECT MEASUREMENT AND CORE REACTIVITY BALANCE" to "CORE REACTIVITY BALANCE" as changed per Amendment 41.	Clarification
14	4	14.2-42-14	372-55 [Am-65] Reflects completion of the permanent building with its appropriate dimensions to house meteorological instrumentation.	Update
14	4	14.2-44-14	423-22 [Am-68] Deletes duplicate entry.	Editorial
14	4	14.2-45-14	T14.2-2 [Am-68] (Sht. 57) Clarifies acceptance criteria section to accurately reference applicable section in 3.9B that provide more information concerning acceptable vibration levels for piping and components that will undergo operational vibration testing.	Clarification

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SER Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification

Total Records Processed : 47

Chapter 14

EVALUATIONS SUMMARY BY ALPHA DESIGNATOR

ALPHA	GROUPS 1	2	3	4	TOTAL
		9	2	35	46
A		1			1
Totals :		10	2	35	47
Factored Totals :		10	2	35	47

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EVALUATIONS SUMMARY BY GROUP

Chapter : 14

	GROUPS				
SER	1	2	3	4	TOTAL
14.00.0		10	2	35	47
TOTAL :		10	2	35	47

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SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
15.1	2	TMI-013-15.1	II.B-6 [Am-66] First sentence changed for consistency with page II. B-4 and the last two sentences were deleted for consistency with portions of SWEC CAP.	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
15.1.1	4	15.0-001-15.1.1	15.0-19 [Am-57] Clarifies when the core residual heat is based on average exposure at the end of the equilibrium cycle.	Clarification
15.1.1	4	15.2-017-15.1.1	15.2-28 [Am-57] That the conservative core residual heat generation is obtained by use of ANSI/ANS-5.1-1979, assuming an infinite irradiation time and a two sigma uncertainty allowance.	Clarification
15.1.1	4	15.6-003-15.1.1-A	15.6-5 [Am-66] The Table number which lists the RCS activity concentrations is changed to 15.1-4. (This table does contain revised values, referred to earlier in Am. 66).	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
15.1.2	2	15.1-001-15.1.2-A	15.1-29 to -32 [Am-56] The conservative analysis of potential offsite doses is presented considering equilibrium operation based upon tech spec limits of primary coolant activity concentration and primary to secondary leakage, rather than 1% defective fuel, and a 1 gpm steam generator leak rate prior to the postulated accident. The revised assumptions also reflect the use of design basis gap activity and include cases in which iodine spikes occur when evaluating steam line breaks. Use was made of Rev. 3 to the Westinghouse "Radiation Design Manual", rather than Rev. 2.	Revision
15.1.2	2	15.7-027-15.1.2	App. 15B-1 thru 10 [Am-66] Changes reflect revisions made to assumptions and methodology used to calculate the environmental consequences of the postulated accidents evaluated in Chapter 15. Added a new Section (15B.6) to describe the computer codes used in the revised analyses to calculate source terms and the radiological consequences of the design basis accidents.	Revision
15.1.2	3	15.1-003-15.1.2-A	T15.1-3 [Am-66] Changes include deletion of the realistic analysis case as well as use of iodine tech spec limits (see explanation for 15.1-29 to 32). The method of dose calculation and the dose conversion assumptions were revised and relocated to Appendix 15B. Resultant doses are presented that are reflective of the revised assumptions and modeling.	Revision
15.1.2	3	15.1-004-15.1.2-A	T15.1-4 [Am-66] Table was revised to include primary coolant activity including tech spec iodine activity level; in addition, the secondary side activity was separated into its liquid and steam components. Activity levels were changed due to revised source term assumptions (see explanation for 15.1-29 to 32).	Revision
15.1.2	3	15.7-028-15.1.2	T15B-1 [Am-66] Deletes the listing of decay constants; revises and adds gamma dose conversion factors (due to changes in Control Room model).	Revision
15.1.2	4	15.2-022-15.1.2	15.2-30 [Am-66] Changed Reference 3 to include both the Proprietary and Non-Proprietary versions.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
15.2.2	1	15.2-012-15.2.2	15.2-23 [Am-57] Indicates that for the loss of normal feedwater flow analysis, the AFW flow rate was assumed to be 600 gal/min. Revises the results to indicate that two motor-driven AFW pumps or one turbine-driven AFW pump, rather than "...at least one auxiliary feedwater pump " automatically start one minute following the initiation of the low-low level trip.	Update
15.2.2	2	15.2-003-15.2.2-B	15.2-17 [Am-57] Adds additional assumptions used in new analysis of loss of nonemergency AC power event.	Addition
15.2.2	2	15.2-004-15.2.2-B	15.2-18 [Am-57] Provides the results of a new analysis for the loss of non-emergency AC power by giving the specific transient response of the RCS in Figures 15.2-9 and -10, and listing the calculated sequence of events in Table 15.2-1.	Addition
15.2.2	2	15.2-008-15.2.2-C	15.2-19 and 15.2-20 [Am-57] Other changes reflect the bases or results of the new analysis for loss of normal feedwater flow.	Update
15.2.2	2	15.2-010-15.2.2	15.2-21 [Am-57] Assumptions 5 6 and 7 were revised to indicate that (1) AFW is delivered to four (not two) steam generators, (2) the self-actuated safety valves used for secondary system steam relief are those for the steam generator, and (3) the initial reactor coolant average temperature is 6.5oF higher (rather than 5.5oF) than the nominal value, allowing for controller deadband and measurement error as well as steam generator fouling penalty, respectively. The other two changes provide clarifications reflective of the new analysis.	Update
15.2.2	2	15.2-024-15.2.2-B	T15.2-1 [Am-57] (Sht. 5) Presents results of the new analysis of the loss of nonemergency AC power event.	Update
15.2.2	2	15.2-025-15.2.2-C	T15.2-1 [Am-57](Sheet 6) Presents results of the new analysis for the loss of normal feedwater flow event (formerly on sheet 5).	Update
15.2.2	3	15.2-006-15.2.2-E	15.2-18 [Am-57] Indicates that LOFTRAN Code results do show that sufficient natural circulation flow is available. Deletes Table 15.2-2. (No change in conclusion.)	Update
15.2.2	3	15.2-011-15.2.2	15.2-22 [Am-57] Assumes that the PORV will remain closed and only the operation of the safety valves will function to limit pressure to	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			2500 psia. Previously the PORV limited the pressure to 2350 psia.	
15.2.2	3	15.2-013-15.2.2	15.2-23 [Am-57] Indicates it is the pressurizer and not the RCS, relief or safety valves, from which water relief is supplied to the steam generators to maintain level.	Correction
15.2.2	3	15.2-027-15.2.2-E	T15.2-2 [Am-57] Table was deleted and the text in Section 15.2.6.2 revised to indicate that the LOFTRAN results showed sufficient natural circulation flow was available to provide adequate decay heat removal the loss of nonemergency power incident.	Update
15.2.2	4	15.2-001-15.2.2	15.2-14 [Am-57] A lengthy sentence was converted into two sentences.	Editorial
15.2.2	4	15.2-002-15.2.2	15.2-16 [Am-57] A subsection number was assigned where none had existed. Changes "...natural circulation flow following a station blackout", to "...plant transient following a station blackout".	Editorial
15.2..	4	15.2-005-15.2.2	15.2-18 [Am-57] Inserts the words "...following receipt of a reactor trip signal...", to more clearly define the time frame during which the transient resembles that from the simulation of the complete loss of flow incident.	Clarification
15.2.2	4	15.2-007-15.2.2	15.2-19 and 15.2-20 [Am-57] Indicates that the worst postulated loss of normal feedwater event is initiated by, rather than is accompanied by, a loss of offsite AC power.	Clarification
15.2.2	4	15.2-009-15.2.2	15.2-20 [Am-57] Deleted the earlier assumption, "A heat transfer coefficient in the steam generator associated with RCS natural circulation."	Update
15.2.2	4	15.2-023-15.2.2	T15.2-1 [Am-57](Shts. 2 and 9) The footnote explaining Note (1) was relocated to sheet 9.	Editorial
15.2.2	4	15.2-029-15.2.2	15.2-18 [Am-57] A subsection number was assigned where none had existed.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
15.3.6	1	15.2-016-15.3.6-N	15.2-28 [Am-57] Continuing from the list of changes to the major assumptions used in the analysis of the largest feedwater line break, 118 seconds rather than 750 seconds was assumed before the feedwater lines were purged.	Update
15.3.6	3	15.2-014-15.3.6	15.2-26 [Am-57] Reflects the use in the analysis of the double ended rupture of the largest feedwater pipe, of a reactor coolant average temperature that is 6.5oF rather than 5.5oF higher than the nominal va	Update
15.3.6	3	15.2-015-15.3.6-D	15.2-27 [Am-57] Reflects several changes in major assumptions used in the analysis of the largest feedwater line break; i.e., the initial pressurizer level is 5%, rather than 2%, above the nominal programmed value, use of more conservative initial water levels in the faulted and intact steam generators (5% higher in the former and 5% lower in the latter), and the AFW System supplies 430 gpm (rather than 470 gpm).	Update
15.3.6	3	15.2-018-15.3.6-D	15.2-29 [Am-57] Reflects changes made in some of the major assumptions used in the analysis of the feedwater system pipe break, i.e., the worst case AFW System configuration is when three intact steam generators receive AFW following the break; further, that it is the motor-driven AFW pump on the intact loops which is assumed to fail, and that flow from the turbine driven pump delivers 430 gpm to the three intact steam generators (rather than the two motor- driven pumps delivering 470 gpm to two steam generators).	Update
15.3.6	3	15.2-019-15.3.6	15.2-29 [Am-57] In discussing the results of the feedwater line break analysis, it is also indicated that RCS pressure can be maintained at the safety valve setpoint until AFW flow is increased to the intact steam generators, as mentioned in Section 15.2.8.2 (in addition to safety injection flow being terminated by the operator) .	Update
15.3.6	3	15.2-020-15.3.6	15.2-29 [Am-57] Due to a typing error, the penultimate line should be revised by deleting the last word (prebreak) and adding..."prevented by the heat removal capability of the Auxiliary Feedwater System."	Correction
15.3.6	3	15.2-026-15.3.6-N	T15.2-1 [Am-57](Shts. 7 and 8) Presents results of the new analysis of the feedwater system pipe break event for cases with and without offsite power.	Update
15.3.6	3	15.2-028-15.3.6-N	F15.2-9 to 26 [Am-57] Presents the results of the new analyses for the loss offsite power, loss of normal feedwater flow and feedwater system pipe	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			break.	
15.3.6	4	15.2-021-15.3.6	15.2-29 [Am-66] Figure number 15.2-19 was changed to 15.2-13.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
15.4.2	3	15.4-001-15.4.2-F	15.4-60 [Am-66] Deletes the realistic analysis for the rod ejection accident. Indicates that the method of analysis complies with the requirements of Appendix B of Regulatory Guide 1.77, except as noted in Appendix 1A(B). Uses the primary and secondary side coolant activity levels of Table 15.4-5.	Revision
15.4.2	3	15.4-003-15.4.2-F	15.4-60 [Am-66] Following the rod ejection accident the activity release also includes that from the melted fuel.	Revision
15.4.2	3	15.4-005-15.4.2-F	15.4-62 [Am-66] Deletes the sentence describing the gap source term since it was revised as described on page 15.4-60. Indicates that the revised gap activities are listed in Table 15.6-8. Deletes the sentence describing the conservatism of the prior assumption for the gap activity source term.	Revision
15.4.2	3	15.4-006-15.4.2-F	15.4-63 [Am-66] Deletes the sentence identifying that the defects would be present in rods generating one percent of core power since this is superseded by the revised source term. Indicates that the primary and secondary side activities are now listed in Table 15.1-4.	Revision
15.4.2	3	15.4-008-15.4.2-F	15.4-64 [Am-66] Presents the dose results for the new assumptions and modeling. No change in conclusion.	Revision
15.4.2	3	15.4-009-15.4.2-F	T15.4-4 [Am-66] Changes include deletion of the realistic analysis case as well as use of iodine tech spec limits and the revised gap activity source term (see explanation for 15.1-29 to 32). The method of dose calculation and the dose conversion assumptions were revised and relocated to Appendix 15B. The resultant doses are presented that are reflective of the revised assumptions and modeling.	Revision
15.4.2	4	15.4-002-15.4.2	15.4-60 [Am-68] Changes the number of Table 15.4-5 to 15.1.4.	Correction
15.4.2	4	15.4-004-15.4.2	15.4-61 [Am-66] Splits one sentence which, in part, discusses the 50% iodine plate out fraction, into two sentences [no technical change). Rewords the sentence dealing with loss of offsite power. Deletes the sentence which had introduced the conservative assumptions used in the analysis since they are implicit in Table 15.4-5 (later, in Am. 68, renumbered 15.1-4), which is still listed in the paragraph.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
15.4.2	4	15.4-007-15.4.2	15.4-63 [Am-66] Rewords assumption 6 (no technical change).	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
15.4.5	1	15.6-015-15.4.5	15.6-34 [Am-66] The temperature-versus-time relationship for recirc water is no longer used; leakage from ESF components is conservatively assumed to start 10 minutes after the LOCA and continue for the duration of the accident; and the previous assumption that no credit is taken for radioactive decay has been deleted.	Revision
15.4.5	1	15.6-033-15.4.5-K	15.6-40 [Am-66] The results of the new analysis are presented in the first two paragraphs; a number of word changes are made in the text.	Revision
15.4.5	1	15.6-042-15.4.5-K	T15.6-9 [Am-66] Changed sprayed and unsprayed volumes (2a).	Revision
15.4.5	1	15.6-044-15.4.5	T15.6-9 [Am-66] Added the duration of elemental and particulate iodine removal (2f) using new modeling (computer code).	Revision
15.4.5	1	15.6-047-15.4.5-K	T15.6-9 [Am-66] Presents the results of the new dose calculations which remain less than the values of 10CFR100.	Revision
15.4.5	2	15.6-004-15.4.5	15.6-6 [Am-66] The doses resulting from the new analysis are presented and remain but a small fraction of the 10CFR100 values.	Revision
15.4.5	2	15.6-008-15.4.5-K	15.6-31 [Am-66] Section 6.5.2 Uses a new model for the Containment Building to obtain convective mixing and spray coverage (effectiveness).	Revision
15.4.5	2	15.6-012-15.4.5-K	15.6-33 [Am-66] Deletes mention of NRC computer code TACT-IV since contractor computer codes were used in the new analysis. Also, presents the results of the new analysis which still remain less than the values in 10CFR100.	Revision
15.4.5	2	15.6-018-15.4.5-K	15.6-35 [Am-66] The results of the new analysis for ESF equipment leakage are presented. Similarly, the total dose results for the LOCA are presented (i.e., the sum of the contributions from containment leakage and ESF equipment leakage); the results are below the values in 10CFR100. It is also indicated that the dose to mineral extraction operations personnel located within the exclusion area would be less than the Part 100 values.	Revision
15.4.5	2	15.6-027-15.4.5	15.6-38 [Am-66] The operating mode sequence was revised to combine several entries and to delete the period beyond 30 days.	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
15.4.5	3	6.2-108-15.4.5	6.2-101 [Am-66] Deletes reference to calculation of the dose at the exclusion area boundary for containment hydrogen purging because the dose is no longer calculated. (See also evaluation no. 15.6-036-15.4.5.)	Revision
15.4.5	3	15.6-002-15.4.5	15.6-5 [Am-66] Indicates that the complete severence of the 3 inch letdown line just outside Containment would result in a loss of reactor coolant at a rate of about 190 gpm, rather than 100 gpm. This came as a result of a new hydraulic flow calculation which maximized the flow out the break. Discussion is included of the instrumentation which will alert the operator of the break, i.e., a low pressure signal instead of a high radiation alarm. The time required for operator action to close the letdown isolation valve has been changed from 7 minutes to "within 30 minutes". A statement is added that 20.1% of the leaking coolant flashes to steam. It is also indicated that the effects of a concurrent iodine spike are included in the analysis.	Revision
15.4.5	3	15.6-005-15.4.5-H	15.6-30 [Am-66] A paragraph was deleted that indicated three cases had been considered involving differing source terms.	Update
15.4.5	3	15.6-006-15.4.5-G	15.6-30 [Am-66] Numerical values for core and gap isotopic inventories have been revised based on use of design basis gap activity, rather than the earlier conservative calculation, and the use of Rev. 3 of the Westinghouse "Radiation analysis Design Manual (instead of Rev. 2) which gave, among other things, different isotopic inventories based on a three region equilibrium cycle core at end of life.	Revision
15.4.5	3	15.6-019-15.4.5	15.6-35 [Am-59] Reduces, from 100% to 95% the iodine adsorber efficiency used in calculating exposure from releases to the atmosphere from ESF equipment leakage.	Update
15.4.5	3	15.6-021-15.4.5-H	15.6-36 [Am-66] The discussion of the gap release case has been deleted (this is consistent with the deletion of the paragraph on 15.6-30 which had indicated that the earlier analysis considered three cases). It is indicated that a high radiation signal from the Control Room air intake monitors will also initiate emergency recirculation and pressurization of the Control Room air conditioning system (in addition to a signal from SIS).	Update
15.4.5	3	15.6-022-15.4.5	15.6-36 [Am-66] The basic assumptions listed for the Radiological Consequences of containment leakage (item 1, referred to) are maintained except	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			for the more conservative use of a constant breathing rate (taken at the same rate previously used for the first 8 hours) throughout the course of the accident.	
15.4.5	3	15.6-025-15.4.5	15.6-37 [Am-66] Indicates that the pressure differential between the control room and adjacent areas is 0.125 inches water gague (formerly, it only indicated that the pressure was slightly above ambient).	Update
15.4.5	3	15.6-026-15.4.5	15.6-37 [Am-66] It is noted that, since both recirc trains are actuated by the SIS the outside air intake could be 1600 cfm (conservative estimate) , resulting in a decrease in the calculated thyroid dose and a slight increase in the whole body and skin doses, although the latter would still be less than the values specified in Criterion 19 of Appendix A to 10CFR50. The results of the new analysis are based on single train emergency recirculation.	Correction
15.4.5	3	15.6-031-15.4.5	15.6-39 [Am-66] The air volume in the control room was recalculated to be 423, 032 ft3, rather than 3.219 x 105 ft3.	Correction
15.4.5	3	15.6-036-15.4.5	15.6-40 and 15.6-41 [Am-66] Since purging of the containment atmosphere provides a backup method for controlling post-LOCA hydrogen accumulation in the containment, and is precluded by the redundant electric hydrogen recombiners located in the Containment Building, the analysis of the radiological consequences of containment purging has been deleted. This is consistent with SRP Section 15.6.5, Appendix C.	Update
15.4.5	3	15.6-037-15.4.5-I	15.6-42 [Am-66] Reactor coolant iodine concentrations and noble gas activity concentrations have been revised to be consistent with tech spec limits.	Revision
15.4.5	3	15.6-038-15.4.5-I	T15.6-3 [Am-66] Lists the revised preaccident iodine spike concentration in the primary coolant; it corresponds to the tech spec I-131 dose equivalent value of 60 uCi/gm.	Revision
15.4.5	3	15.6-039-15.4.5	T15.6-4 [Am-66] Lists the iodine appearance rate in the reactor coolant based on the revised source term.	Revision
15.4.5	3	15.6-40-15.4.5-G	T15.6-8 [Am-66] Lists the recalculated core inventory and design basis gap activities which result from the revised assumptions, including use of a	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			3 region core model.	
15.4.5	3	15.6-041-15.4.5-H	T15.6-9 [Am-66] Deleted realistic and conservative cases.	Update
15.4.5	3	15.6-046-15.4.5-O	T15.6-9 [Am-66](Sheet 4) The method of dose calculation and the dose conversion factors (4a, and b) are spelled out in detail (in Appendix 15B), rather than simply referring to Regulatory Guide 1.4, TID 14844 and ICRP No. 2.	Update
15.4.5	3	15.6-048-15.4.5	T15.6-10 [Am-66] Presents the amount of core iodine (by isotope) available for release through ESF equipment located outside the containment, based on new assumption (50% of core halogens are mixed with reactor coolant).	Revision
15.4.5	4	15.6-001-15.4.5	15.6-4 [Am-66] Rewords and reorganizes the listing of lines connected to the RCS that do penetrate the Containment.	Editorial
15.4.5	4	15.6-007-15.4.5	15.6-30 [Am-66] The other changes slightly rearrange the text and add a new heading for existing and modified text.	Editorial
15.4.5	4	15.6-009-15.4.5	15.6-31 [Am-66] Deleted the word "postulated" used to describe the LOCA.	Editorial
15.4.5	4	15.6-010-15.4.5	15.6-32 [Am-66] Slight changes in wording have been made (no technical changes).	Editorial
15.4.5	4	15.6-011-15.4.5	15.6-33 [Am-66] Changes made in assumptions i and j are editorial.	Editorial
15.4.5	4	15.6-013-15.4.5	15.6-33 [Am-66] Retitles the heading for item 2 to more clearly state the case.	Editorial
15.4.5	4	15.6-014-15.4.5	15.6-34 [Am-66] All changes either involve word substitutions or text changes to more clearly define the text, except as noted in 15.6-015-15.4.5.	Clarification
15.4.5	4	15.6-016-15.4.5	15.6-35 [Am-66] Changes in assumptions f and g are editorial except as noted in 15.6-018-15.4.5-K.	Editorial
15.4.5	4	15.6-017-15.4.5	15.6-35 [Am-66] Assumption f is corrected to indicate the use of HEPA filters rather than adsorbers.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
15.4.5	4	15.6-020-15.4.5	15.6-35 [Am-59] Refers to the version of Regulatory Guide 1.52 discussed in Appendix 1A(B).	Clarification
15.4.5	4	15.6-023-15.4.5	15.6-37 [Am-56] That the 3.219 x 105 ft3 value is the volume to which the operator may be directly exposed.	Clarification
15.4.5	4	15.6-024-15.4.5	15.6-37 [Am-66] Deletes a sentence that had indicated which operating mode for the control room air-conditioning system was used more frequently since it has no relevancy.	Editorial
15.4.5	4	15.6-028-15.4.5	15.6-38 [Am-66] A footnote was added referring to the fact that one recirc train must be manually shut down by the operator within one hour to be consistent with the calculational model.	Clarification
15.4.5	4	15.6-029-15.4.5	15.6-38 [Am-66] The atmospheric dilution equation was typed in a different format (no change in the equation).	Editorial
15.4.5	4	15.6-030-15.4.5	15.6-39 [Am-66] The wording of assumption i was changed for improved readability.	Editorial
15.4.5	4	15.6-032-15.4.5	15.6-40 [Am-66] Change in item k is editorial.	Editorial
15.4.5	4	15.6-035-15.4.5	15.6-40 [Am-66] The words "containment" and "concentration" are added in the title of subsection 5.	Editorial
15.4.5	4	15.6-043-15.4.5	T15.6-9 [Am-66] Deleted absorption and filter efficiencies as they were not applicable.	Editorial
15.4.5	4	15.6-045-15.4.5	T15.6-9 [Am-66] Changed LPZ to 4 miles (from 6439 m).	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
15.4.6	2	15.7-018-15.4.6-A	T15.7-3 [Am-66] Adds to the list of isotopes and revises radioactivity content in tank based on changes in the source term discussed earlier.	Revision
15.4.6	3	15.7-001-15.4.6-O	15.7-5 [Am-66] Presents the results of the reanalysis of radioactive liquid waste system failure using the new source term. Doses which remain less than the values defined in Part 100. The analysis radioactive liquid tank failure is presented in Section 2.4.12 in addition to 2.4.13.3 (as indicated previously).	Revision
15.4.6	4	15.7-016-15.4.6-N	T15.7-1 [Am-66] Deletes the realistic case and the designation of the conservative case. No technical changes are involved.	Update
15.4.6	4	15.7-017-15.4.6-N	T15.7-1 [Am-66] Changes the LPZ distance to 4 miles (from 6439 m).	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
15.4.7	3	15.7-020-15.4.7-O	T15.7-4 [Am-66] Deletes the LPZ distance since no calculations were performed at that point. Instead of citing Regulatory Guide 1.4 for the method of dose calculation, the table now refers to Appendix 15B (which does reference that same Regulatory Guide for certain items). Presents the results of the revised dose analysis.	Revision
15.4.7	4	15.7-019-15.4.7-O	T15.7-4 [Am-66] Deletes the realistic case and the designation of the conservative case. No technical changes except as noted in 15.7-020-15.4.7.	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
15.4.8	2	1AB-5-15.4.8	1A(B)-11 [Am-68] No iodine absorber efficiency was considered when the fuel handling accident was reanalyzed in Amendment 66.	Revision
15.4.8	2	15.7-013-15.4.8-L	15.7-10 [Am-66] Presents the results of the revised analysis which shows that the doses remain less than the values of 10 CFR 100.	Revision
15.4.8	2	15.7-015-15.4.8-L	15.7-12 [Am-66] The text of the Conclusions was modified and the conclusion restated to indicate that the doses are within the regulatory limits of 10 CFR 100.	Revision
15.4.8	3	15.7-004-15.4.8-L	15.7-6 [Am-66] Indicates that the radioactivity listed in Table 15.7-6 is released to the environment as a result of a fuel handling accident, which includes 100 hours of decay, as per Regulatory Guide 1.25, rather than listing the assembly and gap activities at the time of reactor shutdown).	Correction
15.4.8	3	15.7-011-15.4.8-L	15.7-10 [Am-66] No credit is taken for removal of iodine by the primary plant ventilation system (versus 90% in the previous analysis; although results had been presented for the case where no credit was taken for iodine removal by the plant ventilation system).	Revision
15.4.8	3	15.7-014-15.4.8	15.7-11 [Am-66] Indicates that the accident described in the preceding section is considered to represent the limiting case since analysis of the fuel handling accident in the Containment Building would use the same assumptions and yield the same results as the fuel handling accident occuring in the spent fuel storage area. As a result, the section which had described the accident inside the containment has been deleted.	Update
15.4.8	3	15.7-021-15.4.8-L	T15.7-6 [Am-66] Lists noble gas and iodine activities released to the environment due to a fuel handling accident using the revised source term assumptions.	Revision
15.4.8	3	15.7-025-15.4.8-L	T15.7-7 [Am-66] Adds the atmospheric dispersion factor for the 0-8 hour time frame since doses where also performed at LPZ (not done previously).	Update
15.4.8	3	15.7-026-15.4.8-L	T15.7-7 [Am-66] Instead of citing Regulatory Guide 1.25 for the method of dose calculation and dose conversion assumptions, the table now	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			refers to Appendix 15B. Presents the results of the revised dose analysis.	
15.4.8	4	15.7-002-15.4.8	15.7-5 [Am-66] Indicates that dropping of a spent fuel assembly can occur in the Containment Building as well as in the spent fuel storage area (both cases had been analyzed previously).	Editorial
15.4.8	4	15.7-003-15.4.8	15.7-6 [Am-66] Word changes that are made in assumptions only serve to extend them to include the fuel assembly drop in the containment (already analyzed).	Editorial
15.4.8	4	15.7-005-15.4.8-L	15.7-8 [Am-66] Deletes some text discussing overall conservatism of the iodine DF of storage pool water but uses the same value as in the conservative case analyzed previously.	Editorial
15.4.8	4	15.7-006-15.4.8-L	15.7-9 [Am-66] Deletes the paragraph which indicated that both a conservative (based on Regulatory Guide 1.25) and a realistic analysis was performed.	Update
15.4.8	4	15.7-007-15.4.8-L	15.7-9 [Am-66] Indicates that fission product inventories in the damaged fuel assembly are calculated assuming "full power operation at the end of core life 100 hours after shutdown", rather than assuming "full power operation at the end of core life immediately preceding shutdown" (See Table 15.7-6).	Clarification
15.4.8	4	15.7-008-15.4.8-L	15.7-9 [Am-66] Renumbers the steps in the analysis starting with number 4, caused by deletion of one item (maximum fuel rod pressurization < 1200 psig).	Update
15.4.8	4	15.7-009-15.4.8-L	15.7-10 [Am-59] The Amendment 59 revision bar was inadvertently left in place and should have been deleted as a result of changes in Amendment 66.	Editorial
15.4.8	4	15.7-010-15.4.8-L	15.7-10 [Am-66] Renumbers the steps in the analysis, deletes the item indicating that noble gases are not held up in the fuel pool water since it is implicit in the analysis.	Editorial
15.4.8	4	15.7-012-15.4.8-L	15.7-10 [Am-66] Indicates that the parameters for the analysis are listed in Table 15.7-7.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
15.4.8	4	15.7-022-15.4.8-L	T15.7-7 [Am-66] Deletes the realistic case and the designation of the conservative case. Deletes the absorption and filtration efficiencies for inorganic and organic [iodine] species (since no retention is assumed).	Update
15.4.8	4	15.7-023-15.4.8-L	T15.7-7 [Am-66] Adds the number of the Regulatory Guide 1.25 used as the source for "All other pertinent data and assumptions".	Editorial
15.4.8	4	15.7-024-15.4.8-L	T15.7-7 [Am-66] Changes the LPZ distance to 4 miles (from 6439 m).	Editorial

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SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification

Total Records Processed : 120

Chapter 15
EVALUATIONS SUMMARY BY ALPHA DESIGNATOR

ALPHA	GROUPS 1	2	3	4	TOTAL
	3	6	17	35	61
0			1		1
A		2	2	1	5
B		3			3
C		2			2
D			2		2
E			2		2
F			6		6
G			2		2
H			3		3
I			2		2
K	3	3			6
L		2	5	10	17
N	1		2	2	5
O			2	1	3
Totals :	7	18	46	49	120
Factored Totals :	5	11	28	39	83

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FSAR Change Review Information

EVALUATIONS SUMMARY BY GROUP

Chapter : 15

SER	GROUPS 1	2	3	4	TOTAL
15.01.0		1			1
15.01.1				3	3
15.01.2		2	3	1	6
15.02.2	1	6	4	7	18
15.03.6	1		7	1	9
15.04.2			6	3	9
15.04.5	5	5	18	19	47
15.04.6		1	1	2	4
15.04.7			1	1	2
15.04.8		3	6	12	21
TOTAL :	7	18	46	49	120

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SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
17	2	1AB-19-17	1A(B)-38 [Am-65] Adds a description for R.G. 1.68, Appendix A, subparagraph 5.a to complete the change to Table 14.2-3 (Sheet 15) as initiated in Amendment 41. The justification for the change to Table 14.2-3 (Sheet 15) was as follows: (1) The power coefficient test can not be performed at CPSES and (2) the core reactivity balance is considered sufficiently accurate to detect any significant differences between the designed and as-built core and is in addition to the minimum specification to R.G. 1.68.	Revision
17	2	1AB-21-17	1A(B)-35 [Am-66] TU Electric Nuclear Operations does not intend on performing the pseudo rod drop, pseudo rod ejection and below bank rod tests referenced in Regulatory Guide 1.68, Revision 2, Appendix A, Sections 4c, 5e, 5f and 5i. The justification for not conducting these tests include the following: Previous tests on similar facilities indicate little new information is generated by the performance of these tests. Recent industry experience indicate that there is increased potential for causing severe xenon transients by performing these tests. The duration and cost of the physics testing program are reduced by not performing these tests. In addition, Westinghouse has indicated that performance of the 50% power pseudo dropped rod test could lead to a violation of the F-delta-H Technical Specification.	Update
17	4	1AB-20-17	1A(B)-38 [Am-65] Adds a description for R.G. 1.68, Appendix C, subparagraph 4.h. The power ascension program for CPSES requires flux maps to be taken at each power plateau. The values for Fxy (heat flux hot channel factor) and FNH (nuclear enthalpy rise hot channel factor) obtained from these flux maps will be compared to and evaluated against Technical Specification limits for the specific plateau and the next plateau. This evaluation will be used in place of extrapolating DNBR and linear heat rate values. This action is consistent with the Reference Startup Document supplied by the fuel vendor. Station Administrative procedures will require management review and approval of test results prior to ascending to the next power plateau.	Clarification
17	4	1AB-33-17	1A(B)-76 [Am-57] Clarifies commitment of external audit schedule requirements of ANSI 45.2.12 per R.G. 1.144.	Clarification
17.0	4	1AB-40-17.0	1A(B)-12 [Am-59] Adds additional reference to Sections 3.1 and 13.5.	Addition

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
17.1	3	17.1-015-17.1	17.1-5 [Am-60] Focuses reference to the safety analysis report in Item 9 on Chapter 17 of the FSAR.	Update
17.1	4	17.1-001-17.1	17-i thru 17-v [Am-62] Change in page numbers.	Editorial
17.1	4	17.1-002-17.1	17-i [Am-65] Added Section 17.0 to the Table of Contents.	Editorial
17.1	4	17.1-004-17.1	Sec. 17.1 [Am-65] Full text reissued with new format for change bars and sheets renumbered. This editorial update reflects the reorganizational change from TUEC to TU Electric. The various pages that were updated from TUGCO to TU Electric or NEO, do not have amendment bars since the changes were editorial rather than substantive.	Editorial
17.1	4	17.1-005-17.1	17.1-1 [Am-60] Provides changes which do not alter the intent of the previous wording. In some cases, additional explanatory narrative has been provided.	Clarification
17.1	4	17.1-008-17.1	17.1-3 [Am-60] Clarifies and updates Section 17.1.1.1.1 heading.	Editorial
17.1	4	17.1-019-17.1	17.1-6 [Am-60] Changes the Vice Presidents authority from "controls" design, procurement and construction activities to "is responsible for" design and construction.	Update
17.1	4	17.1-027-17.1-B	17.1-9 [Am-60] Changes TUGCO to TU Electric in three places.	Editorial
17.1	4	17.1-032-17.1-B	17.1-13 and 17.1-15 [Am-60] Replaces TUGCO with TU Electric.	Editorial
17.1	4	17.1-036-17.1	17.1-16 [Am-60] Removes capitalization from "quality assurance and quality control information".	Editorial
17.1	4	17.1-043-17.1	17.1-18 [Am-55] In the previous issue the word "revisions" was omitted from the fourth line from the bottom of the page.	Editorial
17.1	4	17.1-045-17.1	17.1-20 [Am-60] Deletes word inadvertently retained by word processor.	Editorial
17.1	4	17.1-049-17.1-B	17.1-21, 22 and 23 [Am-60] "TUGCO/TU Electric" and "Contractor/Vendor" title changes.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
17.1	4	17.1-054-17.1-B	17.1-25 thru -29 [Am-60] Changes "TUGCO/TU Electric" and "Contractor/Vendor".	Editorial
17.1	4	17.1-055-17.1	17.1-29 [Am-66] Replaces "U.S." Bureau with "National" Bureau of Standards. Spelling "allowable".	Editorial
17.1	4	17.1-057-17.1-B	17.1-30 thru 33 [Am-60] "TUGCO/TU Electric" and "prime contractor" title changes.	Editorial
17.1	4	17.1-064-17.1-B	17.1-35 [Am-60] "TUGCO/TU Electric" and "prime contractor" title changes.	Editorial
17.1	4	17.2-003-17.1	17.2-1 [Am-56] Changes the Executive Vice President's title.	Update
17.1	4	17.2-008-17.1-A	17.2-4 and -5 [Am-55] Changes title from manager to director.	Editorial
17.1	4	17.2-013-17.1-A	17.2-8 [Am-55] Changes title from manager to director.	Editorial
17.1	4	17.2-018-17.1-A	17.2-12 [Am-55] Changes title from manager to director.	Editorial
17.1	4	17.2-023-17.1	17.2-16 [Am-62] The word "equipment" was replaced with "components" which is consistent with industry codes and federal regulations and standards	Clarification
17.1	4	17.2-024-17.1	17.2-16 [Am-62] This change to add the word "replacement" is consistent with the description delineated in design documents.	Addition
17.1	4	17.2-034-17.1-A	17.2-36 and -37 [Am-55] Changes title from manager to director.	Editorial
17.1	4	17A-001-17.1	Appendix 17A [Am-66] Appendix 17A is being reissued with new format for change bars, sheet renumbered, and typographical errors corrected.	Editorial
17.1	4	17A-004-17.1	T17A-1 [Am-64] Full table reissued with new format for change bars and sheets renumbered.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
17.2	2	17.1-030-17.2	17.1-11 [Am-60] Removes paragraphs on the implementation of engineering procedure, file control, procurement procedure and the audit program. These are too specific for this general section on the QA Program. Adds the last paragraph on the delegation of authority to implement QA activities.	Update
17.2	2	17.1-031-17.2	17.1-11 and -12 [Am-60] Updates the section on "Design Control" to reflect the new relationship with subcontractors and TU Electric's role in controlling the design. The last two paragraphs are retained with only changes to organizational titles.	Update
17.2	3	17.1-003-17.2	Sec. 17.1 [Am-60] The following changes reflect the reorganization of responsibilities within TUGCO, a clarification of assigned responsibilities by referencing specific departments or positions rather than "TUGCO Management" and text revisions to more clearly define the extension of TUGCO QA Program requirements to our contractors, and/or vendors. These changes have been reviewed by Dallas QA and have been determined not to constitute a reduction in commitments made in the QA Program previously accepted by the NRC.	Revision
17.2	3	17.1-006-17.2	17.1-2 [Am-60] Provides changes or deletions due to classifying Architect Engineering firms under the general category of an engineering services contractor vice prime contractor and due to TUGCO assuming lead responsibility for certain tasks. This philosophy does not alter the intent of the previous wording since the same 10CFR50 Appendix B requirements apply regardless of whether the contractor/vendor or TUGCO has lead responsibility.	Update
17.2	3	17.1-010-17.2-A	17.1-4 [Am-55] Changes "Manager, QA" to "Director, QA".	Update
17.2	3	17.1-012-17.2-D	17.1-4 [Am-59] Item 3 of the duties of the Director of QA is changed from monitoring to auditing contractors and vendors.	Revision
17.2	3	17.1-014-17.2	17.1-4 [Am-60] Introduces the Senior Management QA Overview Committee into the QA review process in Item 8.	Update
17.2	3	17.1-016-17.2	17.1-5 [Am-65] As a result of an internal reorganization of the Quality Assurance Department on October 1, 1987, transferred responsibilities for implementation of portions of the CPSES QA Plan to the Manager,	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			Operations QA.	
17.2	3	17.1-017-17.2-E	17.1-5 [Am-59] Changes the qualifications for Director of QA to add the statement beginning, "A maximum of four years..." Retains the requirement for a bachelor's degree but deletes the need for an engineering or science discipline and deletes the need for a professional registration.	Update
17.2	3	17.1-020-17.2-C	17.1-6 [Am-60] Generalizes organizations to which responsibility may be delegated by removing references to Gibbs and Hill and Westinghouse.	Update
17.2	3	17.1-021-17.2-C	17.1-6 [Am-60] Deletes the descriptive section on Gibbs and Hill and replaces it with Section 17.1.1.2 describing the relationship with any engineering services subcontractor.	Revision
17.2	3	17.1-023-17.2	17.1-7 [Am-60] Changes the figure to the new QA organization but this text is not changed.	Update
17.2	3	17.1-024-17.2	17.1-8 [Am-60] Brown and Root responsibilities are re-defined deleting field procurement and management of subcontractors. Responsibility for compliance to the QA manual has been made more specifically the Brown and Root Site QA Manager in place of a general reference to the Power Construction Department.	Update
17.2	3	17.1-025-17.2	17.1-8 [Am-60] Removes a paragraph describing the activities of the Gibbs and Hill staff.	Update
17.2	3	17.1-029-17.2-C	17.1-10 [Am-60] Replaces "Westinghouse, Gibbs and Hill" by "contractors/vendors".	Update
17.2	3	17.1-035-17.2	17.1-15 [Am-60] Permits TU Electric to delegate its authority to conduct audits of contractor/vendor records.	Revision
17.2	3	17.1-058-17.2	17.1-32 [Am-60] Changes the text to specify that construction contractors versus prime contractors are responsible for reporting NCR's to TUGCO Engineering v versus TUGCO management. This change designates specific groups withi certain organizations as being responsible for certain activities.	Update
17.2	3	17.1-062-17.2	17.1-34 [Am-65] An independent review of nonconformances, including disposition and closeout, will continue to be performed by appropriate Quality	Revision

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			Assurance personnel. This change consolidates the multiple reviews performed by Quality Assurance personnel into a single review at NCR closure.	
17.2	3	17.1-070-17.2	F17.1-2 [Am-60] Figure 17.1-2 is deleted and incorporated into Figure 17.1-6. Figure 17.1-6 is also updated.	Update
17.2	3	17.2-001-17.2	Sec. 17.2 Summary [Am-62] The following changes depict the reorganization of responsibilities within TU Electric and clarify the assigned responsibilities. The changes comply with current organizational charts, procedures and TU Electric established commitments and/or responsibilities concerning Quality Assurance Activities. These changes have been verified by QA and have been determined not to constitute a reduction in commitments made in the QA Program previously accepted by the NRC.	Update
17.2	3	17.2-004-17.2	17.2-2 and 17.2-3 [Am-62] Changes the text to be current with the approved NEO organizational structure. This change reassigns the responsibilities of the Manager, Nuclear Operations to the Vice President Nuclear Operations. Also, the title of Manager, Nuclear Operations has been deleted.	Correction
17.2	3	17.2-005-17.2	17.2-2 and 17.2-3 [Am-56] Removes the establishment of the Operations Review Committee (ORC) and response to its recommendations from the specific duties of the Vice President, Nuclear Operations. ORC is now the responsibility of the Executive Vice President, NEO.	Revision
17.2	3	17.2-007-17.2	17.2-4 [Am-62] The title Operations Quality Assurance Supervisor has been deleted.	Correction
17.2-A	3	17.2-009-17.2-A	17.2-5 [Am-62] Specific duties and responsibilities of the Director, Quality Assurance have been changed to include technical and administrative direction of the Manager, Operations QA, Manager, QC and Manager, QA.	Correction
17.2	3	17.2-010-17.2	17.2-5 [Am-55] Removes the word "direct" from "direct supervision of a member" of ORC.	Update
17.2	3	17.2-014-17.2-E	17.2-8 [Am-59] Adds to the qualifications for the Director, Quality Assurance, the sentence beginning, "A maximum of four years of..." Removes the requirement for a scientific discipline from the bachelor's	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			degree. Deletes professional registration.	
17.2	3	17.2-022-17.2	17.2-14 [Am-62] The Vice President, Engineering and Construction has the overall responsibility for developing procedures to maintain and control the design control process. Previously this activity was coordinated by the Operations Support Superintendent.	Correction
17.2	3	17.2-035-17.2	F17.2-1 [Am-62] This figure is changed to reflect the current NEO organization. Manager, Startup, now reports to the Vice President, Nuclear Operations. This change is consistent with the organizational chart as reflected in FSAR Section 13.1.	Update
17.2	3	17.2-036-17.2	F17.2-2 [Am-62] This figure is changed to reflect the current CPSES Nuclear Operations organization. This change is consistent with NEO procedures and organizational charts currently issued and approved.	Update
17.2	4	3.7-018-17.2	3.7B-19 [Am-66] AE functions are now provided by TUGCO (TU Electric) or its contractor	Correction
17.2	4	17.1-007-17.2-B	17.1-3 [Am-60] Changes TUGCO to TU Electric. Deletes descriptive sentence on the organization charts.	Update
17.2	4	17.1-009-17.2	17.1-3 [Am-55] [Am-60] Uses current TU organization titles.	Update
17.2	4	17.1-011-17.2-B	17.1-4 [Am-60] Changes TUGCO to TU Electric.	Update
17.2	4	17.1-013-17.2	17.1-4 [Am-60] Changes the diverse reference to QA organization and staff engineers in item 5 to "manages the QA Department."	Update
17.2	4	17.1-018-17.2	17.1-5 [Am-60] Updates the titles and reporting sequence for project management.	Update
17.2	4	17.1-022-17.2-B	17.1-7 [Am-55] Changes TUGCO to TU Electric.	Update
17.2	4	17.1-026-17.2	17.1-8 [Am-60] Updates the reporting lineage for QC engineers and inspectors.	Update
17.2	4	17.1-041-17.2	17.1-18 [Am-60] Replaces "prime contractor" by "contractors/vendors".	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
17.2	4	17.1-053-17.2	17.1-24 [Am-66] Replaces "owner" by "TU Electric or its agent" and adds FSAR to clarify the location of Section 1A(N) and 1A(B).	Editorial
17.2	4	17.1-066-17.2-C	17.1-36 [Am-60] Changes "prime contractors" to "construction contractors/vendors.	Editorial
17.2	4	17.1-069-17.2	T17.1-2 [Am-60] Changes "1.1 Quality Assurance Division" to "1.1 Quality Assurance Department".	Update
17.2	4	17.1-071-17.2	F17.1-3 [Am-60] Figure 17.1-3 is deleted. Gibbs and Hill is considered to be an engineering contractor in Figure 17.1-6.	Update
17.2	4	17.1-072-17.2	F17.1-5 [Am-60] Changes the figure to reflect the new Nuclear Engineering and Operations (NEO) Group. See also Figure 13.1-2.	Update
17.2	4	17.1-073-17.2	F17.1-6 [Am-60] Updates this figure and incorporates the project QA organization.	Update
17.2	4	17.1-074-17.2	F17.1-6 [Am-62] This figure is being changed to reflect the current Nuclear Engineering and Operations (NEO) organization. Manager, Startup reports to the Vice President, Nuclear Operations. This change is consistent with the organizational chart as reflected in FSAR Section 13.1.	Update
17.2	4	17.2-002-17.2	17.2-1 [Am-62] Changes "station" to "Nuclear Operations".	Editorial
17.2	4	17.2-006-17.2	17.2-4 [Am-62] The responsibilities of the Manager, Plant Operations for technical and administrative direction have been changed to the Operations, Maintenance and Instrumentation and Control Managers versus Administrative, Engineering, Operations and Maintenance Superintendent.	Correction
17.2	4	17.2-011-17.2	17.2-6 thru -9 [Am-62] Changes the text to be current with the approved NEO organizational structure.	Update
17.2	4	17.2-012-17.2	17.2-7 [Am-65] As a result of an internal reorganization of the Quality Assurance Department on October 1, 1987, the responsibility for Operations surveillance activities were transferred to the Quality Assurance	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			Section. Operations Quality Assurance no longer performs surveillances.	
17.2	4	17.2-018-17.2	17.2-11 [Am-62] Changes the text to be current with the approved N3O organizational structure.	Update
17.2	4	17.2-019-17.2	17.2-12 and 17.2-13 [Am-62] Changes the text to be current with the approved NEO organizational structure.	Update
17.2	4	17.2-021-17.2	17.2-15 and -16 [Am-62] Changes the text to be current with the approved NEO organizational structure.	Update
17.2	4	17.2-026-17.2	17.2-19 [Am-65] As a result of an internal reorganization of the Quality Assurance Department, the review on a periodic basis of the development, review and use of procedures, instructions, and drawings has been changed from the Manger, Operations QA to the Manager, Quality Assurance.	Update
17.2	4	17.2-027-17.2	17.2-19 thru -31 [Am-62] Changes the text to be current with the approved NEO organizational structure.	Update
17.2	4	17.2-030-17.2	17.2-31 [Am-65] As a result of an internal reorganization of the Quality Assurance Department, the periodic review and quality surveillances of the effectiveness of the Measuring and Test Equipment (M&TE) program has been changed from the Manager, Operation QA to the Manager, Quality Assurance.	Update
17.2	4	17.2-032-17.2	17.2-34 [Am-65] Tracking and monitoring of NCR's is no longer the responsibility of Operations Quality Assurance. This task has been reassigned to Engineering and Construction.	Update
17.2	4	17.2-033-17.2	17.2-34 thru -37 [Am-62] Changes the text to be current with the approved NEO organizational structure.	Update
17.2	4	17A-093-17.2-A	421-33 [Am-66] Substitutes "Executive Vice President, Nuclear Engineering and Operations" for "Executive Vice President and General Manager of TUGCO", corrects the title of the Director, Quality Assurance (his title was previously the Manager, Quality Assurance).	Update
17.2	4	17A-094-17.2-A	421-19 [Am-66] Substitutes "Executive Vice President, Nuclear Engineering and Operations" for "Executive Vice President and General Manager	Update

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			of TUGCO", corrects the title of the Director, Quality Assurance (his title was previously the Manager, Quality Assurance).	

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
17.3	2	17.1-056-17.3	17.1-29 [Am-55] Equipment inspected by an instrument which is out of calibration is no longer considered unacceptable per se. Instead it is subject to evaluation and treated as a nonconformance if found unacceptable.	Revision
17.3	3	1AB-6-17.3	1A(B)-14 [Am-55] Revises statement to restore the original commitment to ANSI N18.7-1976 for temporary changes to procedures.	Revision
17.3	3	17.1-028-17.3	17.1-10 [Am-60] Adds to Item 7 that TU Electric is responsible for for assuring design interfaces.	Addition
17.3	3	17.1-033-17.3	17.1-15 [Am-59] Sets procurement QA requirements more specifically as consistent with R.G. 1.28 and 1.123 in place of 10 CFR 50B generally.	Revision
17.3	3	17.1-037-17.3	17.1-16 [Am-59] Changes text to add "When required" to the paragraph on criterion and to add "ASME code requirements" to the sources for criteria.	Correction
17.3	3	17.1-038-17.3	17.1-16 [Am-59] Removes a section giving the detailed inspection requirements to be included in a vendor's QA manual.	Revision
17.3	3	17.1-039-17.3	17.1-16 and -17 [Am-60] Adds a sentence requiring attention to assure that approved changes are included promptly. Clarification: Changes the requirements to state that each traveler may be stamped by either the operator or an inspector.	Addition
17.3	3	17.1-040-17.3	17.1-16 and -17 [Am-57] Adds a sentence to assure that TU Electric QA will review purchasing documentation to assure that it reflects applicable quality requirements.	Addition
17.3	3	17.1-042-17.3	17.1-18 [Am-60] Adds permission for design change reviews to be held by other than the same organization that provided the original review provided that the reviewer is approved by TU Electric.	Addition
17.3	3	17.1-048-17.3	17.1-20 [Am-60] Deletes reference to prime contractor. TU Electric will assure procurement documents will require suppliers to provide a quality verification package to the CPSES plant site.	Update
17.3	3	17.1-050-17.3	17.1-23 [Am-60] Deletes coatings from the list of materials, parts and components which need to be controlled under the TUGCO Corporate QA Program.	Correction

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
			This change is consistent with TUGCO's commitment to Reg. Guide 1.54 as previously accepted by the NRC. (For evaluation, see 6.1-1-6.1.2-A)	
17.3	3	17.1-051-17.3	17.1-23 [Am-60] Shortens the statement ,3 on auditing to verify QA conformance. The details of direct audi' auditing of documentation of previous audits and audi' subcontractors are omitted.	Correction
17.3	3	17.1-052-17.3	17.1-24 [Am-56] Adds a paragraph permitting the use of approved ASME Code Cases.	Addition
17.3	3	17.1-061-17.3	17.1-34 [Am-65] The two proposed instances requiring an NCR to be issued encompass the four conditions requiring an NCR as presently noted in the FSAR. This change is being made to provide consistency concerning the use of NCR's between NEO 3.05 and the FSAR.	Revision
17.3	3	17.1-063-17.3	17.1-35 [Am-65] Changed to indicate "appropriate Quality Assurance personnel" review NCRs and trend reports to be consistent with assigned responsibilities. Trend repor.s are reviewed by the Operations QA Section instead of TU Electric Quality Control. NCRs are reviewed by the Quality Control Section.	Revision
17.3	3	17.1-067-17.3-D	17.1-36 [Am-60] Audits are now conducted by TU Electric. This change eliminates the former listing of "vendor, prime contractor, subcontractor and TUGCO".	Update
17.3	3	17.1-068-17.3-D	17.1-37 thru -40 [Am-60] "TUGCO/TU Electric" and "prime contractor" title changes. Update: Item 2, review of audit reports by contractors, is replaced by direct external audits by TU Electric. Thus, the former item 3 is moved up to the second position with updated wording.	Update
17.3	3	17.2-028-17.3	17.2-22 [Am-59] Describes the establishment of the level of quality assurance required and the evaluation of a supplier's capability to meet the requirements.	Addition
17.3	4	1AN-2-17.3	1A(N)-23 [Am-68] Reflects the correct revision date for Revision 1 to Reg. Guide 1.38. Changes the typographical error from "10/75" to "10/76" .	Editorial
17.3	4	17.1-034-17.3	17.1-15 [Am-57] Replaces reference to "Q-listed materials" with more specific reference to Table 17A.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
17.3	4	17.1-044-17.3	17.1-19 [Am-59] Replaces the entire second paragraph under Section 17.1.7 concerning the pre-award approval of vendors. The new description clarifies the evaluation of suppliers conducted in order to place them on the approved vendors list. Reference is added to Section 17.1.18.	Clarification
17.3	4	17.1-046-17.3	17.1-20 [Am-60] Changes the text to specify that the TUGCO corporate QA Program requires the establishment of hold points related to purchasing documents versus the Purchasing Department. This change is basically a reference clarification.	Clarification
17.3	4	17.1-047-17.3	17.1-20 [Am-60] Adds the word "shipment" and deletes last sentence to correct word processing errors.	Editorial
17.3	4	17.1-059-17.3	17.1-33 [Am-60] Item 4 is rewritten to include both audits and surveillance while Item 5 has been deleted.	Correction
17.3	4	17.1-060-17.3	17.1-33 [Am-61] Improves the definitions of deficiency report and nonconformance report to indicate that while their purposes are very similar the NCR indicates that the condition is indeterminate or unacceptable while the DR does not necessarily presuppose those conditions.	Clarification
17.3	4	17.1-065-17.3	17.1-35 [Am-60] Clarifies that reporting of proposed corrective action will be in accordance with the purchase document. Previously, the wording did not describe how the vendor was made aware of his obligations. Reference to the "prime contractor" is deleted.	Clarification
17.3	4	17.2-015-17.3	17.2-10 [Am-62] This change provides a clearer understanding of the Corporate Quality Assurance Program which delineates policies requirements for quality assurance plans and deletes the previous discussion on the Corporate Quality Program Manual.	Clarification
17.3	4	17.2-017-17.3	17.2-11 [Am-62] The discussion on the Policy Statement of the CPSES Operations Administrative Control and Quality Assurance Program has been replaced with a discussion of the appropriate federal and regulatory requirements of the Quality Assurance Program. Also, the statement delineates the specific responsibility for development and administration of the QA program.	Clarification
17.3	4	17.2-020-17.3	17.2-14 [Am-62] Refers discussion on test program to Section 14.2.	Clarification

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
17.3	4	17.2-025-17.3	17.2-19 [Am-55] Adds the word "Administrative" to better define the procedures and instructions which are to be reviewed and approved.	Clarification
17.3	4	17.2-029-17.3	17.2-27 [Am-55] Adds the words "safety related plant" to define the procedures and instructions to be reviewed.	Clarification
17.3	4	17.2-031-17.3	17.2-34 [Am-62] The words "conditional release" replace "partial disposition" to provide a clearer description of the activities related to non-conforming items.	Clarification

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SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification

Total Records Processed : 122

Chapter 17
EVALUATIONS SUMMARY BY ALPHA DESIGNATOR

ALPHA	GROUPS 1	2	3	4	TOTAL
		5	35	56	96
A			2	6	8
B				9	9
C			3	1	4
D			3		3
E			2		2
Totals :		5	45	72	122
Factored Totals :		5	39	59	103

TU Electric

FSAR Change Review Information

EVALUATIONS SUMMARY BY GROUP

Chapter : 17

SER	GROUPS 1	2	3	4	TOTAL
17.00.0		2		3	5
17.01.0			1	25	26
17.02.0		2	27	30	59
17.03.0		1	17	14	32
TOTAL :		5	45	72	122

SER	Group	Evaluation Number	FSAR Amd Description (Page Numbering per Am-68)	Change Classification
22.2	2	TMI-019-22.2-C	II.B-8 thru II.B-10 [Am-66] This section is revised for consistency with the assumptions pertaining to the SWEC CAP. Updates to reflect methods used in the SWEC CAP. Text and referencing changes to reflect SWEC CAP changes.	Revision
22.2	2	TMI-037-22.2	II.K-17 and II.K-18 [Am-60] Updates Section II.K.3.31 response to include reference to Westinghouse Owners Group analyses which generically demonstrate that the previously used WFLASH LOCA code is conservative compared to the newly approved NOTRUMP code.	Update
22.2	3	TMI-012-22.2-B	II.B-4 and II.B-5 [Am-66] The source term information has been removed to avoid duplication of information in accordance with Regulatory Guide 1.70, Rev. 2.	Revision
22.2	3	TMI-016-22.2	II.B-7 [Am-66] Adds text which clarifies the role of the RHRS in the equipment qualification dose evaluations, since the greater of the radiation doses resulting from depressurized and nondepressurized LOCA analyses was used. The RHRS was used in models for both LOCA conditions.	Update
22.2	3	TMI-017-22.2	II.B-8 [Am-66] This change replaces this section for clarification of the role of CVCS in the equipment qualification calculations.	Revision
22.2	3	TMI-018-22.2	II.B-9 [Am-66] Updates to reflect all sources modeled in the PASS, and references to the descriptions of the appropriate source terms are changed to Section 12.2 for consistency.	Update
22.2	3	TMI-021-22.2-C	II.B-11, IIB-12, II.B-16, IIB-21 and IIB-24 thru IIB-28 [Am-66] Changes in methods of analysis resulted in changes in acceptable error in several analyses and in the elimination of the need for the hot cell.	Revision
22.2	3	TMI-022-22.2-B	TII.B.2-1 thru I1.B.2-3 [Am-66] These tables are deleted and replaced in Section 12.2 to reflect the results of the SWEC CAP and to avoid unnecessary duplication of information, in accordance with Regulatory Guide 1.70, Rev. 2.	Revision
22.2	3	TMI-023-22.2	FII.B.3-1 [Am-67] Adds relief valves to process sampling system for overpressure protection per ASME code Section III, NC-7155.	Addition

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
22.2	3	TMI-026-22.2-D	II.D-2 [Am-65] The information supplied previously on safety valve ring settings was incorrect. This change provides the correct information for safety valve ring settings.	Correction
22.2	3	TMI-036-22.2	II.K-16 [Am-56] References the SER issued by the NRC in response to the Owners Group modified small break LOCA computer code.	Update
22.2	3	TMI-038-22.2	III.A-7 [Am-68] The discussion regarding TSC personnel being required to report to the TSC within forty (40) minutes is being deleted. The specific requirement as discussed in the Emergency Plan is to augment the Operations Staff within 40 minutes; and is not applicable to TSC operation (i.e., Augmentation personnel are not necessarily assigned to the TSC).	Revision
22.2	3	TMI-043-22.2	III.D-6 [Am-66] Modifies the requirement that all silver zeolite cartridges used for grab sampling during accident conditions be surveyed and counted in accordance with applicable Emergency Plan Procedures.	Revision
22.2	4	TMI-001-22.2	I-A No change since Am-14, January 30, 1981	Editorial
22.2	4	TMI-002-22.2	I-B No change since Am-29, December 21, 1981	Editorial
22.2	4	TMI-003-22.2	Sec. I.C [Am-66] This section is being reissued in the computerized format.	Editorial
22.2	4	TMI-004-22.2-A	I.C-3 [Am-66] Adds "NUREG-660" to identify the source for cross- references to I.C.9 as was done for item I.C.8 in the same paragraph.	Clarification
22.2	4	TMI-005-22.2	I.C-7 and I.C-8 [Am-65] Changes reflect the current TU Electric organization and organizational names.	Update
22.2	4	TMI-006-22.2	I.C-8 [Am-59] Provides wording to reflect TUGCO organizational changes.	Update
22.2	4	TMI-007-22.2-A	I.C-11 [Am-65] Adds "NUREG-660" to identify the source for cross- references to I.C.9 as was done for item I.C.8 in the same paragraph.	Clarification
22.2	4	TMI-008-22.2	I-D No change since Am-36, December 10, 1982.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
22.2	4	TMI-009-22.2	I-E/F Intentionally Absent.	Editorial
22.2	4	TMI-010-22.2	I-G No change since Am-23, July 1, 1981.	Editorial
22.2	4	TMI-011-22.2	II-A Intentionally Absent.	Editorial
22.2	4	TMI-014-22.2-B	II.B-6 [Am-66] Changes the reference to Section 12.2 for source term information for consistency with changes previously noted.	Editorial
22.2	4	TMI-015-22.2-B	II.B-7 [Am-66] Changes the reference to Section 12.2 for consistency with previous changes.	Editorial
22.2	4	TMI-020-22.2	II.B-9 and II.B-11 [Am-66] Changes text for clarity of this section and to note that the PASS has been added.	Clarification
22.2	4	TMI-024-22.2	IIC Intentionally Absent.	Editorial
22.2	4	TMI-025-22.2	Sec. II.D [Am-65] Full text reissued with new format for change bars and sheets renumbered.	Editorial
22.2	4	TMI-027-22.2	II.D-3 [Am-65] Change the words "are being" to "have been" because the calculated piping support loads have been incorporated into a reanalysis of the existing piping supports.	Editorial
22.2	4	TMI-028-22.2-D	II.D-4 and II.D-5 [Am-65] References added for corrected safety valve ring settings.	Correction
22.2	4	TMI-029-22.2-D	TII.D.1-1 [Am-65] New format; one note and asterisk dropped. (See also TMI-026-22.2-D)	Editorial
22.2	4	TMI-030-22.2-D	TII.D.1-1 [Am-65](Sht. 1) Reference added for corrected safety valve ring settings.	Correction
22.2	4	TMI-031-22.2	IIE No change since Am-22, January 12, 1981.	Editorial
22.2	4	TMI-032-22.2	IIF No change since Am-39, February 10, 1984.	Editorial

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
22.2	4	TMI-033-22.2	IIG No change since Am-14, January 30, 1981.	Editorial
22.2	4	TMI-034-22.2	Sec. II.K [Am-66] This section is being reissued in the computerized format.	Editorial
22.2	4	TMI-035-22.2	II.K-11 [Am-66] NUREG-0737, item II.K.3.9 requires elimination of the derivative action associated with the pressurizer PORV Proportional-Integral Derivative (PID) controller. Previously, the derivative feature was described as being disabled by setting the PID controller time constant to zero seconds. This cannot be accomplished without changing the design of the PID controller card. The normal method for disabling the derivative action of this type of PID controller is to remove the jumpers that tie the derivative circuits to the signal flow path. This method was in fact used to modify the existing PORV PID controller card. This change affects the CPSES SER (7/81) writeup for Item II.K.3.9 (p22-76). Since the alternate method used does in fact remove the derivative action from the PORV controller, the intent of NUREG-0737 Item II.K.3.9 is maintained.	Correction
22.2	4	TMI-040-22.2	IIIB Intentionally Absent.	Editorial
22.2	4	TMI-041-22.2	IIIC Intentionally Absent.	Editorial
22.2	4	TMI-042-22.2	Sec. III.D [Am-66] This section is being reissued in the computerized format.	Editorial

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SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification

Total Records Processed : 41

TU Electric FSAR Change Review

Chapter 22
EVALUATIONS SUMMARY BY ALPHA DESIGNATOR

ALPHA	GROUPS 1	2	3	4	TOTAL
		1	7	21	29
A				2	2
B			2	2	4
C		1	1		2
D			1	3	4
Totals :		2	11	28	41
Factored Totals :		2	10	24	36

TU Electric

FSAR Change Review Information

EVALUATIONS SUMMARY BY GROUP

Chapter : 22

SER	GROUPS 1	2	3	4	TOTAL
22.02.0		2	11	28	41
TOTAL :		2	11	28	41

TU Electric FSAR Change Review Information Chapter : 22 Page: 1

SER	Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification
22.2	2	TMI-019-22.2-C	II.B-8 thru II.B-10 [Am-66] This section is revised for consistency with the assumptions pertaining to the SWEC CAP. Updates to reflect methods used in the SWEC CAP. Text and referencing changes to reflect SWEC CAP changes.	Revision
22.2	2	TMI-037-22.2	II.K-17 and II.K-18 [Am-60] Updates Section II.K.3.31 response to include reference to Westinghouse Owners Group analyses which generically demonstrate that the previously used WFLASH LOCA code is conservative compared to the newly approved NOTRUMP code.	Update
22.2	3	TMI-012-22.2-B	II.B-4 and II.B-5 [Am-66] The source term information has been removed to avoid duplication of information in accordance with Regulatory Guide 1.70, Rev. 2.	Revision
22.2	3	TMI-016-22.2	II.B-7 [Am-66] Adds text which clarifies the role of the RHRS in the equipment qualification dose evaluations, since the greater of the radiation doses resulting from depressurized and nondepressurized LOCA analyses was used. The RHRS was used in models for both LOCA conditions.	Update
22.2	3	TMI-017-22.2	II.B-8 [Am-66] This change replaces this section for clarification of the role of CVCS in the equipment qualification calculations.	Revision
22.2	3	TMI-018-22.2	II.B-9 [Am-66] Updates to reflect all sources modeled in the PASS, and references to the descriptions of the appropriate source terms are changed to Section 12.2 for consistency.	Update
22.2	3	TMI-021-22.2-C	II.B-11, IIB-12, II.B-16, IIB-21 and IIB-24 thru IIB-28 [Am-66] Changes in methods of analysis resulted in changes in acceptable error in several analyses and in the elimination of the need for the hot cell.	Revision
22.2	3	TMI-022-22.2-B	TII.B.2-1 thru II.B.2-3 [Am-66] These tables are deleted and replaced in Section 12.2 to reflect the results of the SWEC CAP and to avoid unnecessary duplication of information, in accordance with Regulatory Guide 1.70, Rev. 2.	Revision
22.2	3	TMI-023-22.2	FII.B.3-1 [Am-67] Adds relief valves to process sampling system for overpressure protection per ASME code Section III, NC-7155.	Addition

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TU Electric FSAR Change Review Information Chapter : 22 Page: 5

SER Group	Evaluation Number	FSAR Amended Description (Page Numbering per Am-68)	Change Classification

Total Records Processed : 41

TU Electric FSAR Change Review

Chapter 22
EVALUATIONS SUMMARY BY ALPHA DESIGNATOR

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FSAR Change Review Information
EVALUATIONS SUMMARY BY GROUP
Chapter : 22

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