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BOHLKE,W.H. Florida Power & Light Co. See Rpt
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SUBJECT: Application for amend to License DPR-31 & DPR-41,approving design for mod of emergency power sys.

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

JUL 02 1990

Gentlemen:

Re: Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
Proposed License Amendment
Emergency Power System (EPS) Enhancement Project
NRC TAC Nos. 69023 and 69024

In accordance with 10 CFR 50.90, Florida Power & Light Company (FPL) requests that Facility Operating Licenses DPR-31 and DPR-41 be amended to approve the design for modification of the Turkey Point Units 3 and 4 emergency power systems. The EPS Enhancement Project design will add two new class IE emergency diesel generators and make other improvements to the electrical power systems.

The proposed scope of the modifications was discussed in FPL letter L-88-269, dated June 23, 1988, which forwarded the EPS Enhancement Report. Supplement 1 to the EPS Enhancement Report, submitted on April 3, 1989 (FPL letter L-89-124), provided information regarding the testing to be performed on the various components and systems during turnover and startup during preoperational testing, and prior to returning the emergency power system to service. A description of the qualification testing of the new emergency diesel generators was submitted on October 19, 1988 (FPL letter L-88-454). Supplement 2 to the EPS Enhancement Report, providing FPL's safety analysis for the enhanced EPS configuration was submitted on June 4, 1990 (FPL letter L-90-196). Updates to the EPS Enhancement Report (Supplement 0 and Supplement 1) were also submitted by FPL Letter L-90-196.

In addition to the above, FPL requests that Appendix A of the Facility Operating Licenses DPR-31 and DPR-41 be amended to modify the Turkey Point Unit 3 and 4 Technical Specifications to reflect the enhanced emergency power system configuration. These Technical Specifications are based on the Final Draft Technical Specifications issued by the NRC to FPL by letter dated June 15, 1990.

The attached Technical Specifications are consistent with the EPS Enhancement Design Report, Supplement 0, Revision 1, and Supplement 2 to the EPS Enhancement Report (Safety Analysis), Revision 0, and, to the best of our knowledge, will be consistent with the as-built condition of the plant at the completion of the dual unit outage to

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upgrade the emergency power systems. As previously discussed with the staff, the FSAR will be updated in mid-1991 to reflect these changes. Further, the attached Technical Specifications are consistent with the EPS configurations and equipment out-of-service conditions that were evaluated in the design verification FMEAs. Each related specification in the Revised Technical Specifications has been accounted for in the attached Technical Specifications by:

(1) direct transfer, except for editorial and format changes,

(2) substitution of an appropriate Standard Technical Specification, or

(3) submittal of justification for other changes.

The attached Technical Specifications are in the form of "combined" Technical Specifications and are applicable for use by both the Unit 3 and Unit 4 staffs.

FPL has determined that the proposed amendment does not involve a significant hazards consideration pursuant to 10 CFR 50.92. A description of the amendment request and the basis for a no significant hazards determination are provided in Attachment 1. The proposed revised technical specification changes are included in Attachment 2.

In accordance with 10 CFR 50.91(b)(1), a copy of this proposed license amendment is being forwarded to the State Designee for the State of Florida.

The proposed amendment has been reviewed by the Turkey Point Plant Nuclear Safety Committee and the FPL Company Nuclear Review Board.

Should there by any questions on this request, please contact us.

Very truly yours,

W. H. Bohlke
Vice President
Nuclear Engineering and Licensing

WHB/TCG/st
Attachments

cc: Stewart D. Ebneter, Regional Administrator, Region I, USNRC
Senior Resident Inspector, USNRC, Turkey Point Plant
Mr. Jacob Daniel Nash, Florida Department of Health and Rehabilitative Services

STATE OF FLORIDA)
) ss.
COUNTY OF PALM BEACH)

W. H. Bohlke being first duly sworn, deposes and says:

That he is Vice President, Nuclear Engineering and Licensing of Florida Power & Light Company, the Licensee herein;

That he has executed the foregoing document; that the statements made in this document are true and correct to the best of his knowledge, information and belief, and that he is authorized to execute the document on behalf of said Licensee.

W. H. Bohlke

Subscribed and sworn to before me this
2nd day of July, 1990.

NOTARY PUBLIC, in and for the County of
Palm Beach, State of Florida

My Commission expires NOTARY PUBLIC STATE OF FLORIDA AT LARGE MY COMMISSION EXPIRES DEC 26 1993

9007090037

FLORIDA POWER & LIGHT COMPANY

TURKEY POINT UNITS 3 AND 4

EMERGENCY POWER SYSTEM ENHANCEMENT REPORT

SUPPLEMENT NO. 3

REVISION 0

TECHNICAL SPECIFICATION SUBMITTAL

ATTACHMENT 1:
NO SIGNIFICANT HAZARDS
DETERMINATION

ATTACHMENT 2:
TECHNICAL SPECIFICATION
FINAL DRAFT MARK-UP

FLORIDA POWER & LIGHT COMPANY

TURKEY POINT UNITS 3 AND 4

EMERGENCY POWER SYSTEM

ENHANCEMENT PROJECT

NO SIGNIFICANT HAZARDS EVALUATION

EPS Enhancement Report
Supplement No. 3
Revision 0

Attachment 1

JULY, 1990

I. BACKGROUND AND INTRODUCTION

Turkey Point Units 3 & 4 currently operate with an emergency power system (EPS) employing two emergency diesel generators (EDGs), which are shared between the two units. Under the EPS Enhancement Project, Florida Power and Light Company (FPL) is installing two new EDGs and associated electrical and mechanical equipment at the Turkey Point Nuclear (PTP) site. The new EPS configuration will significantly improve overall plant safety by essentially doubling the available capacity of the PTP EPS.

The changes in the EPS being pursued under the current program are described in the EPS Enhancement Report and the Safety Analysis Report submitted on June 4, 1990 via FPL letter L-90-196 (Reference 1). The Safety Analysis Report, as amended, demonstrates the increased safety resulting from the new design with additional EDG capacity and distribution system enhancements.

In late 1986, FPL authorized a detailed design study, the Emergency Power System Enhancement Study, to provide a conceptual design for the EPS improvement option which had been selected based on earlier analyses. Under the chosen option, the AC electrical system for PTP Units 3 and 4 is "separated" to the extent practicable, and two new Class 1E EDGs are added. (Complete "separation" or "unitization" of the PTP Units is not feasible due to the presence of shared systems (e.g., High Head Safety Injection (HHSI) and DC electrical system) which currently exist at the site.

The improved EPS includes two new EDGs with all support systems (fuel oil, starting air, ventilation, etc.), a new EDG building, diesel oil storage tanks and transfer pumps in an associated building, new 4.16 kV switchgear, new 480V load centers (LCs) new 480V motor control centers, new 125V DC transfer/distribution panels, new sequencers, breakers, battery chargers, etc., plus lighting distribution panels, transformers, cabling and numerous components necessary for modifying the existing equipment. The new seismic Category I diesel building is located northeast of the Unit 3 containment. The building is two stories high with the EDGs located on the lower elevation and the auxiliaries, such as air start skids, control panels, motor control centers (MCCs), distribution panels, etc., located on the upper level.

As part of the EPS Enhancement Project, existing EDG #3 (EDG "A"), presently supplying power to the A train of both units, is reassigned to the Unit 3A power train, and relabeled EDG 3A. Similarly, existing EDG #4 (EDG "B") is relabeled EDG 3B and assigned to supply power to the Unit 3B power train. Thus, the two existing EDGs are aligned as the emergency AC power supplies for Unit 3 and certain common or shared systems.

The two new EDGs are aligned as the emergency AC power supplies for Unit 4 and certain common or shared systems. EDG 4A supplies the Unit 4A power train and EDG 4B supplies the Unit 4B power train.

The EPS Enhancement Project will result, essentially, in replacement of the existing EPS at PTP with an improved one. The process will involve only practices which have been successfully utilized before on similar industrial components and systems. No new or otherwise unproven technology is utilized.

The design of the improved EPS also meets the Station Blackout (SBO) Rule, 10CFR50.63, by adding an intertie between the two PTP Units. This feature provides an alternate AC power supply to a blackout Unit through the use of an operating EDG on the non-blackout unit. Conformance to 10CFR50.63 is the subject of a separate PTP submittal to NRC. (Refer to FPL letter L-89-144, dated April 17, 1989). The NRC responded to the SBO submittal in a Safety Evaluation Report (SER) dated June 15, 1990. In the NRC's cover letter it was stated that the alternate AC intertie was not required to be addressed in the Technical Specifications (TS) at this time and that this issue is being considered generically as a unresolved issue by the NRC. Further, the letter went on to state "In the interim, the staff expects plant procedures to reflect the appropriate testing and surveillance requirements to ensure the operability of the necessary SBO equipment". Therefore, TS on the alternate AC intertie are not included in this submittal but will be included in a later submittal, if necessary.

The EPS Enhancement-related Technical Specifications changes justified by this No Significant Hazards Evaluation are consistent with the design presented in the EPS Design Report and the Safety Analysis Report both of Reference 1. The proposed changes in the Technical Specifications have been reviewed against the Failure Modes and Effects Analysis (FMEA) referenced in the Safety Analysis Report to assure that no new single failure concerns have been introduced by the proposed changes.

The proposed TS changes evaluated in this submittal have been categorized as one of the following: (1) EPS Enhancement Changes; (2) Administrative Changes; (3) More Restrictive; (4) Relaxations; and (5) Deletions. EPS Enhancement Changes address new equipment added and designs developed as part of the EPS Enhancement Program. Associated TSs have been developed to prescribe requirements comparable to those applicable to similar equipment and designs. Note that the scope of the proposed changes is primarily limited to changes necessitated by the EPS Enhancement Project. A limited number of other changes not within this scope are also proposed. These changes are categorized, as appropriate, using the same above categories, and the basis for these "other" changes is discussed.

Administrative changes are non-technical in nature and are intended to make the TSs easier to use for plant operations personnel. In a number of cases administrative changes are being made to improve conformance with Westinghouse Standard Technical Specifications (STS), consistent with NRC Senior Project Manager G.E. Edison's letter to C.O. Woody, dated May 12, 1989.

More restrictive or more complete requirements are either more conservative than corresponding requirements in the baseline TSs, or are additional restrictions. The more restrictive or complete requirements enhance safety.

Any relaxations of requirements are based on many years of experience in the nuclear reactor industry. Requirements which are known to provide little or no safety benefit may justifiably be eased or removed from the TSs. In a number of cases, the relaxed requirements already exist in the STS.

Deletions consist of: (1) requirements determined not to be needed for safety purposes, and (2) requirements which already exist in some other controlled document. In some cases, deletions reflect requirements in the STS.

Each TS change is discussed in the "EVALUATION" section below within the framework of the five individual categories. An analysis is presented in terms of the three criteria presented in 10CFR50.92; i.e., whether or not:

> operation of the facility in accordance with the proposed amendment would ...:
>
> (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
>
> (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
>
> (3) Involve a significant reduction in a margin of safety.

The operating license amendment being proposed in connection with the EPS improvement program is of a type considered by the NRC as "not likely to involve significant hazards considerations" per 44FR7751. In particular, and as discussed earlier, the EPS Enhancement Project will essentially result in replacement of the existing EPS at PTP with an improved system. The improved EPS will also accommodate the requirements of the NRC Station Blackout Rule, 10CFR50.63. The project involves only practices which have been successfully utilized before on similar nuclear industry or industrial components and systems. In addition, as detailed in the "EVALUATION" section below, there is no significant increase in the probability of an accident previously evaluated, or creation of a new or different kind of accident from any previously evaluated. Further, there is no change in the EPS safety function or significant reduction in any safety limit or Limiting Condition of Operation (LCO). Thus, the proposed amendment

involves only replacement of a major component or system important to safety ... [where] the following conditions are met

(1) The ... replacement process involves practices which have been successfully implemented at least once on similar components or systems elsewhere in the nuclear industry or in other industries, and does not involve a significant increase in the probability or consequences of an accident previously evaluated or create the possibility of a new or different kind of accident from any accident previously evaluated; and

(2) The ... replacement component or system does not result in a significant change in its safety function or a significant reduction in any safety limit (or limiting condition of operation) associated with the component or system,

which is the NRC's example (ix), and

> a change to conform a license to changes in regulations, where the license change results in very minor changes to facility operations clearly in keeping with the regulations,

which is the NRC's example (vii). Accordingly, and based on the detailed analysis herein, the proposed EPS improvement amendment does not involve significant hazards considerations.

II. EVALUATIONS

TS 3/4.1.2.3 CHARGING PUMPS - OPERATING

LIMITING CONDITION FOR OPERATION

Deletions - The phrase "with independent power supplies" is deleted from the LCO requirement for at least two charging pumps to be OPERABLE.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The existing charging pump configuration at PTP includes three pumps per unit with two pumps (designated as the "A" and "C" pumps) powered from train A and one pump (designated as the "B" pump) from train B. Only one pump is required per unit to adequately perform the system's design functions (i.e. chemical and volume control). To satisfy the single failure criterion, the TS requires at least two pumps powered from independent power supplies. The requirement that each pump must be powered from independent power supplies was required to preclude the potential single failure vulnerability of two pumps (i.e. the "A" and "C" pumps) being lost by a single failure in the A train.

   With the enhanced distribution system provided by the EPS Enhancement Project, the "C" pump has been repowered from the swing 480V LC of each respective Unit. As described in the design report of Reference 1, the swing LC will automatically align itself to an OPERABLE train of power. The swing LC can be aligned to either train A or B during normal operation. Under the new configuration, the requirement that each pump be powered from an independent power supply is not necessary to ensure compliance with the single failure criterion. If pumps "A" and "C" were OPERABLE and the swing LC was aligned to the A train, loss of the A power train would not result in the loss of both pumps because the swing load would automatically transfer to the OPERABLE B train.

   The Chemical and Volume Control System Malfunction analyzed in the Final Safety Analysis Report (FSAR) is not affected by this change. The worst case dilution resulting from all three pumps as assumed in the FSAR is still the most limiting. There are no environmental consequences associated with this accident. The Loss of Offsite Power (LOOP) and Large Break Loss of Coolant Accident (LBLOCA) analyses evaluated in the FSAR are not impacted by this change either. Since the revised LCO meets the same criteria as the existing LCO, there is no significant increase in the probability of a previously evaluated accident or its consequences.

TS 3/4.1.2.3 CHARGING PUMPS - OPERATING

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The margin of safety is not reduced because the proposed revision ensures that single failure criteria are satisfied. With the EPS enhancement, the margin of safety is enhanced because any two of the three pumps in each unit can be used to satisfy the LCO, whereas before a select two were required. This change will enhance the plant"s ability to maintain compliance with this TS.

ACTION

Administrative Changes - The existing ACTION "b" is proposed to be the only ACTION required for this TS (see the discussion below on the deletion of ACTIONs "a" and "c"). A minor editorial change which revises "any two" to "at least two" in this ACTION is also proposed.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The proposed change to delete the "b" identifier for this ACTION is purely editorial because it will be the only remaining ACTION. An alpha-identifier is not used in standard STS formatting when only one ACTION is provided. The revision of "any two" to "at least two" is an administrative change necessitated by the deletion of the other two ACTIONs. The change results in this ACTION being more consistent with the STS as made possible by the EPS Enhancement Project. This change is editorial also, and thus does not impact the probability or consequences of an accident.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. Since this change is editorial, there is no impact on the margin of safety.

TS 3/4.1.2.3 CHARGING PUMPS - OPERATING

Deletions - Deleted ACTION "a" for the condition with two pumps OPERABLE but not powered from independent power supplies, and consequently deleted ACTION "c" which states that the provisions of 3.0.4 are not applicable to ACTION "a".

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The powering of the three pumps has been modified by the EPS Enhancement Project as discussed above. The number of pumps required to be OPERABLE has not changed. The existing ACTION "a" provides a seven day allowable outage time (AOT) when two pumps are OPERABLE but not powered from independent power supplies. The requirement for independent power supplies is no longer appropriate because of the proposed plant modifications of the EPS Enhancement Project as discussed above. Since the LCO is being revised, this ACTION is no longer necessary. The deletion of this ACTION results in a more restrictive TS. Whereas the existing ACTION "a" allowed the plant to operate for seven days in a condition that did not meet the single failure criterion, the proposed ACTION will only allow this condition to exist for 72 hours before requiring a unit shutdown. The 72 hour AOT is consistent with current industry practice and the STS.

   ACTION "c" is deleted since it is only applicable to the condition allowed by ACTION "a". With ACTION "a" deleted ACTION "c" is no longer appropriate. The deletion of ACTIONs "a" and "c" result in a TS which is more consistent with STS.

   The Chemical and Volume Control System Malfunction analyzed in the FSAR is not affected by this change. The worst case dilution resulting from all three pumps as assumed in the FSAR is still the most limiting. There are no environmental consequences associated with this accident. The LOOP and LBLOCA analyses evaluated in the FSAR are not adversely impacted by this change either. There is no increase in the probability or consequences of an previously analyzed accident.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new equipment is added by this change. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The margin of safety is increased by this change because it further restricts the amount of time that the plant can continue operation in a degraded (i.e. not meeting the single failure criterion) condition.

TS 3/4.3.2 ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

EPS Enhancement Changes - Each of the 480V LCs' undervoltage relays' setpoints for instantaneous degraded voltage and inverse time degraded voltage specified in Table 3.3-3 items 7.b and 7.c, respectively, are revised (except the inverse time relay for LC 3B).

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The existing design calculation for PTP which established the existing trip setpoint values has been reviewed and recalculated. The recalculation was necessitated because of the repowering of various loads and changes in the sequencer load blocks as discussed in reference 1. These changes result in different voltage drops being seen by the LCs. The assumptions and calculational methodology used in the new calculation (Reference 2) are consistent with those of the existing calculation. Since the same undervoltage protection is afforded in the new EPS configuration by the revised values there is no significant increase in the probability or consequences of an accident previously evaluated.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation. The ability of the system to detect and appropriately respond to an off-normal undervoltage condition is maintained.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The same criteria utilized in the calculation of the existing setpoints has been applied to the new LC voltages for the calculation of the revised setpoints. The purpose of the specified trip settings is to separate the busses from the offsite power and reenergize them from the onsite power if an unacceptable voltage drop should occur on the offsite power system. The margin of safety provided by the new values is commensurate with the existing values since they were calculated in a similar manner.

TS 3/4.3.3.4 FIRE DETECTION INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

EPS Enhancement Changes - On Table 3.3-6, the number "3" is added directly in front of the letters "A" and "B" in the titles of Fire Zones 72 through 75. This action unitizes these fire zones to apply to Unit 3 EDG equipment only. Also on Table 3.3-6, nine additional fire zones are added to the table. Six of these additional fire zones involve fire areas containing the new Unit 4 EDGs (Fire Zones 133 and 138) and auxiliaries (Fire Zones 135, 136, 140 and 141). Two additional fire zones (Fire Zones 134 and 139) involve fire areas containing new 4160 volt switchgear 3D and 4D. Finally, the last additional fire zone (Fire Zone 25) involves the new Auxiliary Building Electrical Equipment Room.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The change to the titles of Fire Zones 72 through 75 is editorial in nature and therefore has no impact on previously analyzed accidents. The additional nine new fire zones added to Table 3.3-6 are consistent with the existing listed fire zones and provide assurance that new equipment located in these fire zones will be appropriately monitored. Therefore, the probability or consequences of required equipment loses is not increased. These new fire zones do not affect the initiator of any other accident evaluated in the FSAR and provide assurance that the new equipment (i.e., Unit 4 EDGs, 4160 volt Switchgear D, etc.) will be available to mitigate the consequences of an accident involving a LOOP.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. The additional nine new fire zones added to Table 3.3-6 are consistent with the existing listed fire zones and impose more limiting requirements on plant operations. Also, no new types of fire detectors are being added to the plant. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The margin of safety remains unchanged since the additional fire zone detectors provide assurance that the same level of warning exists for the new EPS equipment as for existing required plant equipment.

TS 3/4.3.3.4 FIRE DETECTION INSTRUMENTATION

Administrative Changes - On Table 3.3.6, the titles of Fire Zones 72 through 75 been modified by deleting the word "Emergency" in each fire zone title, and adding the word "Generator" directly after "Diesel" in the titles for Fire Zones 72 and 73 only. Also, the missing parentheses after "(0/3" in number of heat instruments column for Fire Zone 72 and 73 are added.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. These changes are editorial in nature and have no impact on plant operating requirements or FSAR analyzed accidents.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. These changes are editorial in nature and have no effect on the possibility of accidents. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. This change is editorial in nature and has no effect on the margin of safety.

Deletions - On Table 3.3-6, the triple-asterisked footnote and all triple-asterisked denotations are removed. The footnote only provided historical information which is now superfluous and of no safety significance.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The deletion of this note statement is editorial and it will not result in any changes to the plant operating requirements. Thus, this change has no impact on current FSAR analyses.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. This change is editorial in nature and has no effect on the possibility of accidents. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. This change is editorial in nature and has no effect on the margin of safety.

TS 3/4.3.3.4 FIRE DETECTION INSTRUMENTATION

ACTIONS

Administrative Changes - The word "instrument" in the first line of ACTION "b" is pluralized. Also, the words "within 30 days" are added to the end of ACTION "c". This addition specifies a time limit for submittal of a Special Report to the NRC.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated because the proposed change is editorial in nature only. The omission of a specified time limit for the subject report was an inadvertently oversight in the RTS.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated because the proposed change is editorial in nature only. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety because the proposed change is editorial in nature only.

TS 3/4.5.2 ECCS SUBSYSTEMS - Tavg GREATER THAN OR EQUAL TO 350°F

LIMITING CONDITION FOR OPERATION

EPS Enhancement Changes - Inserted phrase "each capable of being powered from its associated OPERABLE diesel generator" between "pumps" and "with discharge" and added an associated footnote "# Inoperability of the required EDG does not constitute inoperability of its Associated Safety Injection Pump" in LCO 3.5.2a. Also, add the footnote "* Only three OPERABLE Safety Injection pumps, (two associated with the unit and one from the opposite unit) each capable of being powered from its associated OPERABLE diesel generator #, with discharge aligned to the Reactor Coolant System cold leg are required if the opposite unit is in MODE 4, 5, or 6" at the end of LCO 3.5.2a.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The HHSI system at PTP is shared by both units. The existing system consists of four shared pumps each capable of delivering flow to either unit. Each pump is powered from its respective 4 kV switchgear with both train A switchgears aligned to EDG A and both train B switchgears to EDG B. A single failure of either EDG, during an event, which involved a LOOP, would prevent two HHSI pumps from performing their function. Per the existing design, two pumps are required (after a single failure is assumed) to mitigate the consequences of a Loss of Coolant Accident (LOCA) as analyzed in the FSAR. In addition to the LOCA analyses, the HHSI system functions are required in response to a Main Steam Line Break (MSLB). Similar to the LOCA analyses, only two HHSI pumps are required to mitigate the MSLB. To satisfy the Design Basis Accident Analyses requirements which includes the single failure criterion, all four pumps were required OPERABLE.

   With the enhanced configuration of the EPS Enhancement Project, each 4 kV switchgear, thus each HHSI pump, will have a dedicated EDG. Unlike the existing system, there are no credible single failures which result in the loss of more than one HHSI pump. Because of this enhancement, only three HHSI pumps are required to meet the Design Basis Accident requirements. The EPS modifications also result in different OPERABILITY requirements for the EDGs (i.e., instead of all (both) EDGs being required for single or dual unit operation as per the existing design, three EDGs will be required for single unit operation and all (four) EDGs required for dual unit operation (see proposed TS 3.8.1.1 for details)). The footnote, which requires only three HHSI pumps (two associated with the unit and one from the opposite unit) to be OPERABLE for single unit operation, has been added to achieve consistency with the new Electrical Power Systems TSs and is acceptable because of the elimination of the above described single failure scenario. The phrase in the footnote that each required OPERABLE HHSI pump be capable of being powered from its associated OPERABLE EDG is to preclude the possibility of an HHSI pump being aligned to an inoperable EDG and the affected unit not

being in an ACTION statement. This phrase is also added to the LCO for the same reason. The note that an inoperable associated EDG does not result in the Safety Injection pump being inoperable was added for additional clarity to assure the correct ACTION statement (new 3.5.2f) is entered if a required HHSI pump can not be powered from an OPERABLE EDG.

The probability of previously evaluated accidents is not increased since the failure of an HHSI pump is not the initiator of any accident evaluated in the FSAR. The HHSI pumps are used to mitigate the consequences of the FSAR accidents of a defined range of LOCA and secondary side accidents by providing emergency core cooling or reactivity control that is required to preserve the integrity of the reactor core. For all accidents analyzed, a maximum of two HHSI pumps were required to be OPERABLE after the most limiting single failure. With the revised LCO and the enhanced EPS, the scenarios analyzed in the FSAR will result in three pumps being OPERABLE. A safety analysis (Reference 3) has been performed which demonstrates that there is no significant increase in the consequences of any credible accident.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The margin of safety provided by this TS is increased for scenarios with both units at power. For a scenario with one unit at power and one unit shutdown, the change still satisfies FSAR accident analyses and the single failure criterion and there is therefore no decrease in the margin of safety. A detailed evaluation of FSAR DBA accident analyses involving the HHSI system and the existing applicable design criteria is provided in reference 3.

ACTIONS

EPS Enhancement Changes - ACTIONs "c" and "d" have been revised to address the appropriate actions for only the case when both units are at power. Since all four HHSI pumps are required OPERABLE during this condition, the phrases "of the four required" when referring to the HHSI pumps and "and the opposite unit is in MODE 1, 2, or 3" are added. A new footnote is added to ACTION "c" which states that the provisions of 3.0.4 and 4.0.4 are not applicable. In addition the statement that ACTION "c" applies to both units simultaneously is removed.

A new ACTION "e" is added to address the condition where the opposite unit is in MODE 4, 5, or 6. During this condition only three HHSI pumps are

required to be OPERABLE. If one of the three required pumps is inoperable, then this ACTION stipulates a 72 hour AOT before requiring unit shutdown.

Lastly a new ACTION "f" is added to address the condition where a required HHSI pump is not capable of being powered from its associated OPERABLE EDG, as required by the revised LCO. A 72 hour AOT consistent with the ACTION of LCO 3.8.1.1 for the condition of a required EDG being inoperable is specified.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The revisions to limit the scope of ACTIONs "c" and "d" is required since they are no longer appropriate for a condition with one unit shut down. The actions required when both units are at power are not affected by these changes. The requirement for ACTION "c" to apply to both units simultaneously is no longer required since, as discussed in the changes to the LCO, only three HHSI pumps (two with the operating unit and one for the opposite unit) are needed if the unit with the inoperable HHSI pump is in MODES 4, 5, or 6. Therefore, this ACTION statement no longer applies to both units. The addition of the footnote which provides for an exemption from the requirements of specification 3.0.4 and 4.0.4 is added because the new EPS design assures compliance with the single failure criterion while in this ACTION. As discussed earlier, this is an improvement over the existing design.

   A new ACTION "e" is added to address the condition where the opposite unit is in MODE 4, 5, or 6. This ACTION is now required because of the addition of the footnote to the LCO which requires only three HHSI pumps to be OPERABLE when the opposite unit is not in MODE 1 or 2. If a unit enters the ACTION statement, the AOT and shutdown requirements are consistent with STS and NRC guidance.

   A new ACTION "f" is added to address the condition when a required HHSI pump is not capable of being powered by its associated EDG. This provision is added to assure conformance with the single failure criterion as discussed earlier. The AOT proposed for the ACTION statement is consistent with the AOT of either an EDG or HHSI pump being inoperable.

   None of the above revisions or addition increase the probability of FSAR analyzed accidents because they do not affect any accident initiator. While the equipment addressed by these ACTION statements are required for the mitigation of the consequences of FSAR analyzed accidents, the ACTIONs required and the associated AOTs are consistent or more conservative than the existing ACTIONs in the RTS.
2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of

accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. ACTIONs required for off normal equipment conditions are consistent with or more restrictive than the existing requirements, hence there is no reduction in the margin of safety.

SURVEILLANCE

Administrative Changes - In surveillance requirement 4.5.2g.2 remove "FCV-*-605" from the list of valves. This surveillance requirement requires the verification of the correct position of the electrical and/or mechanical position stops of the listed valves. The valves identified by "FCV-*-605" do not have either electrical and/or mechanical position stops since these valves close in the event of an accident; therefore, this surveillance does not apply.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability of consequences of an accident previously evaluated since this change only removes valves which had been inadvertently included in a surveillance which did not apply. This change is editorial.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated since this change is editorial. No new equipment is added by this change. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. This change only removes valves which had been inadvertently included in a surveillance which did not apply. This change is editorial.

TS 3/4.7.8.2 SPRAY AND/OR SPRINKLER SYSTEMS

LIMITING CONDITION FOR OPERATION

EPS Enhancement Changes - The phrase "(Unit 3)" has been added at the end of LCO 3.7.8.2d to indicate that Fire Zones 72 through 75 will pertain to Unit 3 EDGs and auxiliaries only. Also, a new LCO (3.7.8.2e) has been added to reflect the similar sprinkler system to be installed in the new Unit 4 EDG Rooms and Fuel Transfer Pump Rooms (New Fire Zones 133, 136, 138 and 141).

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The additional phrase "(Unit 3)" is provided for clarity purposes only and has no affect on the probability or consequences of previously analyzed accidents. The new LCO for the Unit 4 EDG Building sprinkler systems is added to provide the same OPERABILITY requirements for these new sprinkler systems as specified for the existing EDG Building sprinkler systems. This new LCO ensures that the same protection is provided for the new EDG Building, as compared to the existing EDG Building, in case of a fire. Therefore, the probability of or consequences of loosing an EDG due to a fire is not increased.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. The additional phrase "(Unit 3)" is provided for clarity purposes only and has no effect on the probability or consequences of previously analyzed accidents. The sprinkler system for the new Unit 4 EDG Building provides the same degree of protection against fire-induced loss of an EDG as does the existing EDG Building sprinkler system, and performs this function in a similar manner. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The new EDG Building sprinkler systems LCO will assure that the safety-related equipment in this new building is protected against fire damage to the same level of protection as for the safety-related equipment in the existing EDG Building.

Administrative Changes - The phrase "(Unit 3 and Unit 4)" has been added at the end of LCO 3.7.8.2c to indicate that Fire Zone 79A is common to both units.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The added phrase is for clarification purposes only. FSAR analyzed accidents are not affected.

TS 3/4.7.8.2 SPRAY AND/OR SPRINKLER SYSTEMS

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. This change only clarifies the operability requirement for Fire Zone 79A to identify it applies to both units. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. This proposed change only clarifies that Fire Zone 79A is common to both units. Thus, the margin of safety is not impacted.

ACTIONS

Administrative Changes - In ACTION "a", the statement "This ACTION applies to both units simultaneously." is modified to state "This ACTION will apply to both units simultaneously for 3.7.8.2.c." This modification clarifies the intent of the required ACTION since the ACTION would not apply to both units simultaneously if the spray and/or sprinkler system(s) declared inoperable affect only one unit. Fire Zones 54, 55, 72, 73, 74 and 75 only affect Unit 3; Fire Zones 45, 47, 133, 136, 138 and 141 only affect Unit 4; and Fire Zone 79A affects both units.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The proposed change is editorial in nature to clarify the intent of the required ACTION. This change will not change the plant operating requirements and has no impact on FSAR analyzed accidents.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. This change is editorial in nature and has no effect on the possibility of accidents. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. This change is editorial in nature and has no impact on the margin of safety.

TS 3/4.7.8.4 FIRE HYDRANT AND HYDRANT HOSE HOUSES

LIMITING CONDITION FOR OPERATION

EPS Enhancement Changes - A new fire hydrant has been added to Table 3.7-5 which increases the total number of fire hydrants listed to 12. This fire hydrant (HY-18) is located at the Unit 3 Containment Access Ramp Area and has been added to the fire main to compensate for the addition of the new Unit 4 EDG Building. Therefore, this fire hydrant addition is a direct result of the EPS Enhancement Project.

Unrelated to the EPS Enhancement Project, but performed concurrently with it, is the project to upgrade the security system at PTP. The Security System Upgrade Project will relocate the security fence at PTP to remove Units 1 and 2 (fossil units) from the secured area. The new security fence will prevent access to Fire Hydrant FH-06 which is listed on Table 3.7-5. However, the Security System Upgrade Project compensated for the unavailability of Fire Hydrant FH-06 by installing new Fire Hydrant HY-26 on the Unit 3/4 side of the new security fence which protects the same Unit 3/4 plant equipment as Fire Hydrant FH-06 did prior to security fence relocation. Therefore, Fire Hydrant FH-06 has been replaced by Fire Hydrant HY-26 on Table 3.7-5.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. Fire Hydrant HY-26 protects the area previously protected by Fire Hydrant FH-06 before security fence relocation. Therefore, the substitution of new Fire Hydrant HY-26 for Fire Hydrant FH-06 does not effect the probability or consequences of accidents previously evaluated.

   The addition of Fire Hydrant HY-18 to Table 3.7-5 is consistent with the level of protection provided by the existing fire protection program. This newly listed fire hydrant does not affect the initiator of any other accident evaluated in the FSAR and provides assurance that fire protection is available for required plant equipment in the vicinity of the new Unit 4 EDG Building.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. Fire Hydrants HY-18 and HY-26 will be maintained and operated in accordance with the existing fire protection program, and therefore, will not create the possibility of a new or different kind of accident. The proposed change introduces no basic changes in operation or new modes of operation.

TS 3/4.7.8.4 FIRE HYDRANT AND HYDRANT HOSE HOUSES

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. Fire Hydrant HY-26 provides the same level of existing fire protection as Fire Hydrant FH-06. Fire Hydrant HY-18 provides the same level of fire protection for the new safety-related equipment in the vicinity of new Unit 4 EDG Building as the remainder of the plant protected by fire hydrants. Thus, the margin of safety from this proposed change is not reduced.

Administrative Changes - On Table 3.7-5, all identified fire hydrants have had their identification number changed from "FH-" to "HY-". The "HY-" identifier is consistent with other plant documents (i.e., drawings, equipment lists, etc.). Also on Table 3.7-5, Fire Hydrants FH-10 and FH-11 have been clarified to indicate that FH-10 is only one fire hydrant, not two, as specified in the "Number of Hydrants" column, and that FH-11 has a specified listing under the "Fire Zone", "Location" and "Number of Hydrants" columns where none had previously existed.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The above described changes are purely administrative to clarify the descriptions of the listed fire hydrants. This change will not result in any changes to plant operating requirements. Thus, this change has no impact on current FSAR analyzed accidents.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. This change only clarifies the description of the existing list of fire hydrants and has no effect on the possibility of accidents. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. This proposed change does not alter the required list of fire hydrants, only the description and abbreviated equipment identifier of the fire hydrants. Thus, the margin of safety is not impacted.

TS 3/4.8.1.1 AC SOURCES - OPERATING

LIMITING CONDITION FOR OPERATION

EPS Enhancement Changes - The EPS Enhancement Project at PTP adds two Class 1E EDGs and modifies the existing distribution system (for design details and a safety analysis of these modifications see Reference 1). As a result of these modifications each Unit requires three EDGs (the two associated with the Unit and either one of the EDGs associated with the opposite Unit) to meet the single failure criterion and to mitigate an accident. Also, the fuel requirements for the new Unit 4 EDG fuel systems are added to the LCO.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated.

   As postulated, LOOP and LBLOCA require the start and operation of Engineered Safety Features (ESF) equipment. The enhanced system with load redistribution and addition of swing 4 kV switchgear, swing 480V LCs, and 480V MCCs provides a greater degree of power source availability to power the required equipment. Required ESF loads are accommodated with the enhanced EPS configuration, and no single failure will prevent the enhanced EPS from performing its required safety function in the event of an accident on either unit. The LBLOCA analysis as presented in the FSAR remains bounding under the enhanced EPS configuration. The added fuel requirements for the new Unit 4 EDG fuel systems provide requirements which are commensurate with the requirements for the existing EDG fuel systems.

   Since the EDGs are not initiators of accidents, there is no increase in the probability of an accident.

   There is also no increase in the consequences of an accident previously evaluated. The enhanced EPS configuration provides an improved response to the existing FSAR limiting Design Basis Accident (DBA) by providing enhanced equipment availability on the accident unit with increased EDG loading margin.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed change introduces no basic changes in operation or new modes of operation. These changes have not resulted in new types of plant operating requirements given that the requirements for the new EDGs and the associated level of detail is commensurate with the requirements for the existing TS.

TS 3/4.8.1.1 AC SOURCES - OPERATING

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The addition of two new EDGs enhances the margin of safety by providing added onsite AC capacity and increased equipment availability.

Administrative Changes - The LCO has been reformatted (items b and c) to enhance consistency with the STS by combining all requirements to assure EDG OPERABILITY in one LCO (new 3.8.1.1b). A new associated footnote was added to this LCO to ensure that if one or more of the four EDG's is out-of-service that compliances with Technical Specifications 3.5.2 and 3.8.2.1 is reviewed. This administrative change also includes the consolidation of the EDG support requirements by adding the MCCs required to power each EDG's auxiliaries. Also, the rating of the startup transformers was deleted to enhance consistency with the STS and since this information was not pertinent to the LCO.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The reformatting including the new associated footnote is intended to make the TS easier to use for plant operations personnel. The addition of the MCC requirements with this LCO consolidates the OPERABILITY requirements of the EDGs. The consolidation of the EDG OPERABILITY requirements into one item improves the TS organization.

   The transformer rating is FSAR design data that is not required by the reactor operators or other personnel by whom the TS are used. There are only two startup transformers at PTP and the removal of the nameplate rating will not affect identification of the startup transformers.

   The above changes have not resulted in any new plant operating requirements. No accident initiating events are affected. These administrative changes do not affect the probability of the occurrence or the consequences of an accident.

2. Based on the above discussion it can also be concluded that operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation. The changes are administrative only.

TS 3/4.8.1.1 AC SOURCES - OPERATING

3. Based on the above discussion it can also be concluded that operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The changes only enhance the TS by deleting unnecessary information, consolidating requirements, and providing an additional reminder note resulting in improved TS organization and clarity.

More Restrictive - New requirements for the storage of at least 120 gallons of lube oil and the ability to transfer this oil to EDGs 3A or 3B are proposed. These new requirements are consistent with the STS, as appropriate, and assure a seven day supply of lube oil consistent with the fuel requirements. Note that these restrictions are not proposed for the new EDGs (i.e. EDGs 4A and 4B) because their engines are provided with a seven day lube oil capacity in the engine oil sump.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. This change only adds an additional administrative requirement to facilitate longer operation of the Unit 3 EDGs without the need to procure lubricating oil from offsite. The function and/or operation of the EDGs as analyzed in the FSAR is not affected by this change. Storage of this lube oil will be in compliance with the existing fire protection program, such that the probability or consequences of an accident previously evaluated will not be significantly increased.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed change introduces no basic changes in operation or new modes of operation. Storage of this lube oil will be in compliance with the existing fire protection program such that no new or different accidents will be possible.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The proposed change will increase the margin of safety by assuring the availability of extra lube oil in order to sustain extended operation of the Unit 3 EDGs, if required.

TS 3/4.8.1.1 AC SOURCES - OPERATING

APPLICABILITY

Administrative Changes - Addition of the word "and" to enhance consistency with the STS.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. This change is editorial and it will not result in any changes to the plant operating requirements Thus this change has no impact on current FSAR analyses.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. This change is editorial and has no effect on the possibility of accidents. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. This change is purely editorial and has no impact on the margin of safety.

ACTIONS

Administrative Changes - ACTIONs "a" through "f" were reformatted into paragraph form to enhance conformance with STS. The verification of ESF OPERABILITY was removed from ACTIONs "b" and "d" of the RTS. This verification is now required by a new ACTION "d" and has been revised as follows: 1) ESF equipment is replaced by all required systems, subsystems, trains, components, and devices (except safety injection pumps); 2) a separate requirement to verify at least two safety injection pumps are OPERABLE. In addition, ACTION "d" of the RTS was renamed as ACTION "c". The order of ACTIONs "e" and "f" was reversed such that existing "e" is now "f" and existing "f" is now "e". A clarifying statement was added to the new proposed ACTION "e" to specify verification of OPERABILITY of the startup transformer returned to service every eight hours. Also, new ACTION "e" refers to the provisions of new ACTION "a" for restoring the other startup transformer and its associated circuits instead of assuming that operations personnel will refer to ACTION "a" without being instructed. A double asterisk footnote has been added to new ACTION "e" which extends the time limitations to reach HOT STANDBY so that both units do not have to shutdown/cooldown concurrently. This footnote allows for a more orderly and safer dual unit shutdown and cooldown. A clarifying statement was added to the new proposed ACTION "f" which states that all required EDGs must be returned to OPERABLE status within 72 hours.

TS 3/4.8.1.1 AC SOURCES - OPERATING

Finally, new ACTIONs "a" and "e" refer to "...startup transformers or an (their) associated circuit(s) inoperable..." while existing ACTIONs "a" and "f" refer to only "startup transformer(s)". For the ACTION statements which apply when a startup transformer is inoperable (new items "a" and "c") identify that a EDG is not required to be tested if the EDG is already operating.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The reformatting of the ACTIONs are intended to make the TS easier to use by plant personnel by making the format more consistent with STS. The ACTIONs to be performed that are not directly associated with the remaining OPERABLE electrical sources (i.e., verification of other systems, subsystems, etc. are OPERABLE) are consolidated under one new ACTION "d" which improves the TS organization. Replacing "ESF equipment" with "all required systems... and devices" is more restrictive. The exception provided for the safety injection pumps is consistent with the plant's design and the existing TS, since only two pumps were powered by the remaining EDG in the existing design. With the enhanced EPS, up to three pumps could be OPERABLE and aligned to OPERABLE EDGs during this condition (i.e., one EDG inoperable) but only two HHSI pumps are required to meet design requirements. The renaming of ACTION "d" as ACTION "c" is editorial due to the deletion of ACTION "c" (note that an evaluation of this deletion is provided below). Likewise the transposing of ACTION "e" and "f" is editorial and is done to enhance consistency with STS. The statements added to ACTIONs "e" and "f" (the ACTIONs regarding the loss of both startup transformers or two EDGs) simply clarify the appropriate ACTIONs to follow after restoration of one of the inoperable AC sources. This clarification simply restates the requirements provided in ACTIONs "a" and "b", which the plant would be in for the condition of only one EDG or Startup transformer inoperable. The new footnote minimizes inter-unit confusion and disruptive effects by allowing a sequential dual unit shutdown/cooldown, not a concurrent one. This promotes safer plant operations. The new reference to ACTIONs "a" or "b" in new ACTION "e" help consolidate the TSs into a more organized format. The terminology change from "startup transformer(s)" to "startup transformers or an (their) associated circuit(s)" in new ACTIONs "a" and "e" is purely editorial in nature. These clarifying statements are added to enhance consistency with STS and are intended to make the TS easier to use by plant personnel. Identifying in new items "a" and "c" that a EDG is not required to be tested if the EDG is already operating makes these items consistent with RTS ACTION 3.8.1.1f.1), this ACTION applies when two startup transformers are inoperable. None of these changes affect plant operating requirements.

TS 3/4.8.1.1 AC SOURCES - OPERATING

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed change introduces no basic changes in operation or new modes of operation. They are editorial in nature.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The changes only enhance the TS by consolidating requirements and establishing a format which is more consistent with current NRC guidance.

More Restrictive - The frequency for verification of OPERABILITY of the OPERABLE startup transformers as required by ACTIONs "a", "b", and existing "d" and "e", has been increased from once every 24 hours to once every eight hours. The allowable time to reduce power to less than or equal to 30% in ACTION "a" has been reduced from 30 hours to 24 hours. If power is not reduced to less than or equal to 30% within 24 hours, the associated unit must be shut down within the next 54 hours if the startup transformer remains inoperable. This provision is incorporated into ACTIONs "a" and the new "e". The existing TS allows continued operation at a maximum of 30% reactor power for 30 days before requiring shutdown. Also in ACTIONs "b" and new "f", the number of hours for reaching hot shutdown has been reduced from twelve hours to six hours.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The increase in the surveillance frequency of the startup transformer(s) is more restrictive than the existing requirements. This change will provide added assurance that the OPERABLE startup transformer(s) is (are) available to perform its (their) function, if needed. The reduction in the time for reducing power on the loss of a startup transformer will result in the plant being in a low power, stable condition sooner than required in the existing TS. Because these requirements are more restrictive than the existing requirements, the probability of an accident and its consequences are reduced. The reduction in the time allowed to reach hot shutdown from twelve hours to six hours is a direct result of the elimination of the dual unit shutdown requirement (see discussion below on deletions). This change makes this time period consistent with the rest of the TS when only a single unit shutdown is required and is more restrictive than before.

TS 3/4.8.1.1 AC SOURCES - OPERATING

The requirement to restore an inoperable startup transformer within 72 hours following loss of an associated startup transformer with no compensatory ACTIONs (i.e., reduction of reactor power to less than or equal to 30%) reduces the AOT from 30 days to 72 hours. This new AOT for the startup transformers is consistent with the STS and NRC guidelines. This AOT change reduces the likelihood of an accident (LOOP) being initiated with the reactor at power. Therefore, this proposed change would reduce the probability of a previously evaluated accident.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The margin of safety would be enhanced because the plant operators would take compensatory ACTIONs sooner and additional assurance of equipment OPERABILITY would be provided. Also, the startup transformers are not required for mitigation of a design basis accident. While offsite power, via the startup transformers, is normally utilized during plant shutdown, PTP has the capability of maintaining stable conditions assuming a reactor trip with no offsite power available.

Relaxations - In ACTIONs "b" and "c" an exception to the requirement to demonstrate the OPERABILITY of the remaining required EDGs is added for the case when the EDG became inoperable because of preplanned preventative maintenance or testing.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. Consistent with the STS and current NRC guidance, testing of the redundant (i.e., remaining required EDGs) EDGs are to be performed after any failure or any problem which renders the EDG inoperable. The purpose of this testing is to demonstrate that the redundant EDG have not been degraded by a similar problem. When an EDG is intentionally taken out of service, the above concern does not exist. Therefore, it is acceptable to provide an exemption to this testing when an EDG is taken out of service for preplanned preventive maintenance or testing. Reducing the number of unnecessary EDG tests is in accordance with Generic Letter 84-15 and current NRC guidance. Since the EDGs are not initiators of FSAR analyzed accidents and this change serves to enhance EDG reliability, there is no increase in the probability or consequences of a previously analyzed accident.

TS 3/4.8.1.1 AC SOURCES - OPERATING

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. The change only affects the number of times an EDG OPERABILITY demonstration may be performed. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. This change serves to enhance EDG reliability by reducing the number of unnecessary EDG tests which minimizes EDG wear.

Deletions - Verification of the cranking diesel generators OPERABILITY has been removed from ACTIONs "a" and "d". The requirement to repeat EDG OPERABILITY demonstrations on a 24 hour frequency, to verify compliance with LCO 3.8.2.1, and to implement a dual unit shutdown is deleted from ACTIONs, "b" and "d". The dual unit shutdown requirement in ACTION "e" (renamed ACTION "f") is also deleted. ACTION "c", which addresses the inoperability of a EDG due to the performance of Surveillance Requirement 4.8.1.1.2c, is deleted in its entirety.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The cranking diesel generators are not safety-related and no credit is taken for them in the FSAR LOOP and LBLOCA analyses. These diesels were included in the TS to assure that additional onsite electrical capacity could be made available. This ACTION had been deemed appropriate in the past due to the limited number and capacity of the existing EPS design. The addition of two new EDGs and the design improvements of the EPS Enhancement Project, removes previous concerns over EDG number and capacity, hence the removal of the cranking diesels from the TS does not change the probability or consequences of previously evaluated FSAR accidents.

   The requirement to repeat EDG OPERABILITY demonstrations is being deleted only for cases where a timely (i.e within 72 hours) shutdown will be initiated, if the inoperable EDG is not restored. For this limited period of time during which the plant will be in a limiting condition, a single demonstration of the remaining EDGs' OPERABILITY will provide adequate assurance that the EDGs can perform their design function, if required. This is satisfied with a single test. As discussed in Generic Letter 84-15, excessive testing of EDGs can result in excessive wear and tear and eventual degradation of the engine's reliability. Since reasonable assurance (consistent with STS and NRC guidance) of the OPERABILITY of the remaining EDGs is provided, there is no significant increase in the probability of an accident or its consequences.

TS 3/4.8.1.1 AC SOURCES - OPERATING

The specific requirement to verify compliance with LCO 3.8.2.1 is redundant. The requirement in the new ACTION "d" to verify the OPERABILITY of all required systems, subsystems, trains, components, and devices that depend on the remaining OPERABLE EDGs will provide assurance that the DC sources of LCO 3.8.2.1 will function in accordance with their design. Since this requirement will still be met, this change will have no impact on the current accident analyses.

The dual unit shutdown requirement of ACTIONs "b", "d", and "e" is deleted because it is no longer appropriate with the Enhanced EPS design. In the existing design both EDGs were required for single unit or dual unit operation which results in both units being impacted simultaneously on the loss of an EDG. Under the new configuration with four EDGs, only three EDGs (two associated with the operating unit and one from the opposite unit) are required for single unit operation. When both units are at power, all four EDG must be OPERABLE. For the both units at power case, which is the only operating configuration where a dual unit shutdown would be of concern, loss of one EDG only impacts the unit associated with the faulted EDG (assuming all other TS requirements for the opposite unit are satisfied). The opposite unit is still in compliance with the LCO. As demonstrated by the Safety Analysis, as amended, of Reference 1, the probability and consequences of the FSAR LBLOCA analysis are not adversely affected by the enhanced configuration. The condition described in existing ACTION "d" (i.e., one EDG and one startup transformer inoperable) is not applicable to both units simultaneously, since the loss of an EDG only affects one unit. Therefore for this condition, only the unit with an associated EDG faulted would enter this ACTION. The other unit would only enter the ACTION "a" because of the inoperable startup transformer. For existing ACTION "e", the only scenario which would require entry into this ACTION would be the loss of both EDGs associated with a particular unit. In this scenario the other unit would enter into ACTION "b" because of the loss of one of its required EDGs. In the event that two EDGs become unavailable, one associated with each unit, both units individually would enter ACTION "b". Therefore the deletion of the dual unit shutdown requirements is appropriate because of the design modifications.

ACTION "c" is deleted in its entirety because it is no longer necessary and is not consistent with STS. The surveillance for which this ACTION was written will no longer be performed during power operation for the unit associated with the test EDG. The subject surveillance will only be performed for the EDGs associated with a shutdown unit and on a nonconcurrent basis such that EDG requirements for the operating unit can be satisfied. The only ACTION remaining in this TS for the loss of a required EDG is more restrictive than the ACTION being deleted (i.e., a 72 hour AOT of ACTION "b" versus a 7 day AOT of the deleted ACTION "c"), thus this

deletion results in a more restrictive TS. Since this TS is now more restrictive, the probability of an accident or its consequences would not be increased.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. The cranking diesels are located remotely from any plant vital equipment and there are no possible failures of these diesels which could create a new or different accident.

The possibility of a new or different kind of accident other than that analyzed in the FSAR has not been created by the deletion of excessive repetitive EDG tests. The possibility of a malfunction of equipment important to safety of a different type than any analyzed in the FSAR has not been increased. Instead, the probability of equipment malfunction has been reduced as the result of reduced wear and tear on the EDGs as discussed in Generic Letter 84-15. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation.

The deletion of the requirement to verify compliance with LCO 3.8.2.1 does not create the possibility of a new or different accident. Since the intent of this requirement is still satisfied by the new requirement to verify all systems, subsystems, trains, components, or devices that depend on the remaining OPERABLE EDGs, this change has no net impact on the requirements of the TS. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation.

The deletion of the dual unit shutdown requirement, where appropriate, as discussed above does not create the possibility of a new or different accident. The proposed change will not result in the operation of a unit without its minimum required ESF equipment being OPERABLE or without being in an appropriate ACTION statement. The proposed change introduces no basic changes in operation or new modes of operation.

The deletion of ACTION "c" results in a more restrictive TS by requiring a more timely shutdown of a unit if one of its required EDGs is inoperable for any reason with no exceptions. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The cranking diesels are not safety related; therefore, deletion of the equipment from the TS will have no impact on the margin of safety.

The deletion of the unnecessary repetitive testing of the EDGs will serve to enhance the margin of safety by minimizing unnecessary wear and tear of the EDGs. As discussed in Generic Letter 84-15, the excessive EDG testing can cause premature EDG degradation and the elimination of excessive testing can enhance reliability.

The elimination of a dual unit shutdown, where appropriate, does not involve a reduction in the margin of safety. As a result of the EPS Enhancement Project, a dual unit shutdown is not appropriate for the ACTION statements discussed above. The margin of safety as defined in the bases of the TS is not compromised.

The deletion of ACTION "c" enhances the margin of safety by requiring a timely shutdown, consistent with current NRC guidance and the STS, regardless of the reason that an EDG is taken out of service.

TS 3/4.8.1.1 AC SOURCES - OPERATING

SURVEILLANCE 4.8.1.1.1

Administrative Changes- A demonstration of the ability to manually transfer the unit power supply from the auxiliary transformer to the startup transformer was added as a surveillance. Consequently the existing surveillance was divided into parts a and b with a containing the original requirements and b this new surveillance.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The proposed change to add a surveillance for the transfer of unit power is an administrative change to enhance consistency with the STS. The transfer of the unit's power from the auxiliary transformer to the startup transformer is normally performed every time the plant is shut down, thus this surveillance does not impose an additional restriction. The division of the surveillance into parts a and b is editorial to accommodate the added surveillance. These changes will not result in any changes to the plant operating requirements or any plant modifications. There is no impact on the existing FSAR analyses.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. The changes are administrative and editorial only. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The changes are administrative and editorial only. They have no impact on the margin of safety.

TS 3/4.8.1.1 AC SOURCES - OPERATING

SURVEILLANCE 4.8.1.1.2

EPS Enhancement Changes - In Surveillance Requirement 4.8.1.1.2g.3 (RTS 4.8.1.1.2d.1)b) identify the required load rejection capability for the new EDGs. In Surveillance Requirement 4.8.1.1.2g.7 (RTS 4.8.1.1.2d.5) and Surveillance 4.8.1.1.2a.5 identify the acceptable loading bands for the new EDGs. In Surveillance Requirement 4.8.1.1.2g.8 (RTS 4.8.1.1.2d.7) identify the maximum allowable auto connect loads for the new EDGs. Identify which values apply to the existing EDGs and which apply to the new EDGs by placing a "(Unit 3)" or "(Unit 4)", respectively, beside them. Also, reword the Surveillances as required to reflect the addition of the two new EDGs.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The EDGs are not the initiator of any accident evaluated in the FSAR and these requirements provide assurance that the new EDGs will be available to mitigate the consequences of an accident involving a LOOP.

   The value of the required load rejection capability for the new EDGs is consistent with the STS and the existing value indicated for the existing EDGs. The value proposed is the continuous rating of the EDGs as identified by the EDG vendor.

   The specified acceptable loading bands for the new EDGs provides the same EDG performance assurance as the criteria for the existing EDGs.

   The maximum allowable auto connect loads for the new EDGs are the continuous load rating of the EDGs as identified by the EDG vendor.

   The rewording of the surveillances reflects the addition of the two new EDGs and the differences in design between the original and new EDG systems. The wording revisions provide requirements for the new EDGs which are commensurate with the requirement of the RTS, except where otherwise identified.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. These changes only provide the appropriate values for the new EDGs for surveillance requirements previously contained in the RTS or change the wording of surveillances to reflect the addition of the new EDGs. The proposed change introduces no basic changes in operation or new modes of operation.

TS 3/4.8.1.1 AC SOURCES - OPERATING

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety, since the changes just provide values for the new EDGs, which have been designed as presented in Reference 1, for surveillances previously contained in the RTS and changes wording of surveillances to reflect the addition of the new EDGs.

Administrative Changes - Add a footnote to provide for a prelube period before EDG starts. In part a.1, delete the specified fuel volume. In part a.2, delete the specified fuel volume. Part a.4 is reworded to enhance consistency with the STS by integrating the associated footnote into the text and identify what start signals may be used to start the EDGs. In part a.5 " $\geq$ 60 minutes" is changed to "at least 60 minutes" and "the cooling system operates within design limits" is changed to "the cooling system is demonstrated OPERABLE".

Part c surveillance is moved and renumbered as 4.8.1.1.2g.1 and revised to enhance consistency with STS. This involved changing "During each Unit 4 refueling outage" to "At least once per 18 months, during shutdown," clarifying that surveillance applies only to the two EDGs associated with the shutdown unit, and adding "in accordance with procedures prepared."

Parts d.1)a and b are moved and renumbered as 4.8.1.1.2g.2 and.3, respectively. They are reworded to enhance consistency with STS, and provide provisions to minimize mechanical wear and tear. Part d.2 is moved and renumbered as 4.8.1.1.2g.6)c. It is also reworded to enhance consistency with STS. Parts d.3 and .4 are replaced by 4.8.1.1.2g.4, .5, .6)a, and .6)b to require testing with a simulated LOOP, a simulated ESF Actuation, and a simulated ESF Actuation concurrent with a LOOP which is consist with STS. Part d.5 is renumbered as 4.8.1.1.2g.7 and reworded to enhance consistency with STS. In Surveillance 4.8.1.1.2g.7 (RTS 4.8.1.1.2d.5) and Surveillance 4.8.1.1.2a.5, the specified EDG loading is replaced with acceptable loading bands and footnotes which address momentary transients outside of the specified bands and diesel warmup procedures. Note that verification of the cooling system functions at the end of the test required by d.5 is deleted and will be discussed below in the "Deletions" section of this No Significant Hazards Determination. Parts d.6 and .7 are reworded and renumbered as 4.8.1.1.2g.9 and .8, respectively. Also maximum auto-connect loading of the existing EDGs is revised to achieve consistency with the new EDGs.

Part e is renumbered as 4.8.1.1.2.h and reworded to enhance consistency with STS and the enhanced design.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The probability of occurrence of an accident previously evaluated in the FSAR has not been affected since the EDGs do not affect the probability of

occurrence of accidents. The consequences of an accident previously evaluated in the FSAR have not been increased because the same equipment will be available to mitigate the accident. The addition of the footnote to provide for prelube before EDG starts to be consistent with the diesel manufacturer's recommendation are intended to enhanced EDG reliability by minimizing severe test conditions which can lead to premature failures. Also, the addition of what start signals may be used to start the EDGs for performance of this test just provides additional clarity and consistency with the STS. The deletion of the fuel volumes in part a.1 and .2 is editorial to enhance consistency with STS. The volumes for the fuel requirements are listed in the LCO and do not need to be repeated in the surveillance.

The changes in part a.4 are editorial in nature. The footnote that was associated with this surveillance has been integrated into the text. Additional guidance is provided for the signals to use for starting the EDGs for this surveillance. The acceptance criteria (except a more restrictive tolerance on the voltage which will be discussed below with the more restrictive changes) or frequency for this surveillance are not affected by this proposed change. The wording changes to part a.5 are editorial for clarity.

The renumbering of part c is editorial. The change in the definition of the frequency is proposed to enhance consistency with the STS, as made possible by the EPS enhancement. The overall frequency for performing this surveillance will not be affected. At least once per 18 months is interpreted as the equivalent of during shutdown, but it provides a readily quantifiable schedule. Since both PTP Units 3 and 4 use the same TS, a clarification that the surveillance is applicable to the two EDGs associated with the shutdown Unit is also appropriately proposed. Consistent with the existing surveillance, all EDGs will be tested at a similar frequency. The addition of the phrase "in accordance with the procedures prepared" is purely editorial to enhance consistency with STS.

The renumbering of parts d.1)a and b is editorial. The wording changes have been proposed to accommodate the reformatting of these surveillances and do not affect the intent or requirements of this surveillance (except a more restrictive tolerance on the voltage which will be discussed below with the more restrictive changes). The addition of the footnote which provides for pre-test warmups is consistent with the manufacturer's recommendations and the guidance provided in Generic Letter 84-15. The warmup procedures will enhance the reliability of the EDGs.
The renumbering of part d.2 is editorial. The rewording of this surveillance is proposed to enhance consistency with STS and make the requirement clearer. This change is also purely editorial.

TS 3/4.8.1.1 AC SOURCES - OPERATING

Parts d.3 and .4 have been expanded and replaced by 4.8.1.1.2g.4, .5, .6)a and .6)b. The existing surveillance require the EDGs to be tested for proper operation on simulated LOOP followed by a simulated HHSI or on a simulated Safety Injection (SI) followed by a simulated LOOP. The proposed revised surveillance requires testing for a simulated LOOP, a simulated ESF Actuation (same as SI), and a simulated LOOP in conjunction with an ESF Actuation. The proposed testing scenarios are consistent with current NRC guidance (i.e., the STS) and consistent with the accident scenarios (i.e., LBLOCA concurrent with LOOP) evaluated in the FSAR.

The renumbering of part d.5 is editorial. The revisions to this surveillance are proposed to enhance consistency with STS. The specification of loads bands versus greater than or equal to is endorsed by EDG vendors and NRC for both parts d.5 and a.5. The specified band provides the same EDG performance assurance as the existing criteria, but minimizes the wear and tear on the EDG. It also precludes testing the EDGs while excessively loaded as allowed by the existing specification. Consistent with the current NRC philosophy, as indicated in Generic Letter 84-15, footnotes are also proposed which provide a provision for gradual loading of the EDGs and for momentary transients outside of the specified bands. The first footnote is to minimize mechanical stress and the second is to preclude unnecessary retests.

The renumbering of parts d.6 and .7 is editorial. Part d.7 has been slightly reworded to enhance consistency with STS. The requirements of this specification are identical. For consistency, the auto-connect value specified for the existing EDGs has been revised to their continuous rating of 2500 kW. This value is more conservative for the existing EDGs and does not adversely impact the probability of an accident or its consequences.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed changes in the surveillance are basically editorial in nature and do not require any new types of testing. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The proposed surveillance have been revised to enhance consistency with STS and to minimize stress and wear on the EDGs. The proposed surveillance provide a commensurate level of confidence that the EDGs will perform as designed and should improve EDG reliability.

TS 3/4.8.1.1 AC SOURCES - OPERATING

More Restrictive - The following new restrictions are proposed: Surveillance 4.8.1.1.2a.3) requires verification of lubricating oil inventory in storage. Surveillance 4.8.1.1.2a.5 requires verification automatic transfer of fuel from the day tank to the skid mounted tank on Unit 3. Surveillance 4.8.1.1.2c through f are added in their entirety to add requirements concerning the EDG fuel oil. These requirements include, at least once per 31 days, checking for and removing accumulated water from the fuel oil storage and day tanks (Units 3 & 4) and the skid-mounted fuel tanks (Unit 3). Also, at least once per 31 days obtaining a sample from the fuel oil storage tank and verifying that the total particulate contamination is less than 10mg/liter when checked in accordance with the applicable industry standard. In addition, requirements are included to test new fuel oil in accordance with the applicable industry standards for items such as appearance, flash point, viscosity, and API Gravity. These requirements replace the current requirement to at least once per 92 days verify a sample of fuel oil is within acceptable limits for viscosity, water, and sediment (4.8.1.1.2b in the RTS). In Surveillance 4.8.1.1.2a.4), 2d.1)a, 2d.4), and 2e, the voltage tolerance of $\pm$ 624 volts is reduced to $\pm$ 420 volts. Table 4.8-1, "DIESEL GENERATOR TEST SCHEDULE", is modified to add testing frequency requirements associated with the number of failures in the last 100 valid tests. This included deleting the word "valid" in the footnotes for Table 4.8-1. Also, the word "prior" before "NRC" in the first footnote of Table 4.8-1 is deleted. These Table 4.8-1 changes enhance conformance to the STS. In Surveillance Requirement 4.8.1.1.2g.7 (4.8.1.1.2d.5 in the RTS), the test duration is extended from 8 hours to 24 hours of EDG operation (this extension provides enhanced consistency with the STS). Surveillance Requirement 4.8.1.1.2g.10 verifies that a Safety Injection signal overrides an EDG operating in the test mode. Surveillance Requirement 4.8.1.1.2g.12 verifies OPERABILITY of the automatic load sequence timer. Surveillance Requirement 4.8.1.1.2g.13 verifies proper operation of the EDG lockout relay. Finally, Surveillance Requirement 4.8.1.1.2i specifies a pressure test of the Unit 4 (only) diesel fuel oil system designed to ASME Section III, Subsection ND. This surveillance requirement also specifies a drain-down and cleaning of each EDG fuel oil storage tank to ensure a reliable source of high quality fuel.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The additional surveillance will have no impact on the probability of an accident since EDGs are not initiators of FSAR analyzed Design Basis Accidents (DBAs). Extending the duration of EDG operation during testing, and adding the additional surveillance requirements to verify lube oil storage inventory, verify Unit 3 automatic fuel transfer to the skid mounted tank, and checking and analyzing diesel fuel oil serve to provide increased confidence that the EDGs will function as designed. The tightening of the tolerance allowed for the voltage provided by the EDG is more restrictive and will provide added assurance that the equipment powered by the EDGs can function as designed. The addition of testing frequency requirements associated with the number

of failures in the last 100 valid tests provides increased confidence of EDG OPERABILITY by requiring an increased testing frequency due to the total number of failures in the last 100 valid tests instead of just the last 20. The required tests to ensure that a Safety Injection signal overrides the EDG test mode circuitry; the automatic load sequence time operates per design; and the EDG lockout relay prevents EDG starts, all verify that the control circuitry of the EDGs operate properly. This provides greater confidence that the EDGs will operate, as designed, to power required accident loads. Finally, the new Unit 4 EDG fuel oil system pressure test verifies the integrity of this required system and reduces the probability of EDG failure due to fuel starvation during a design accident. Thus, there will be no increase in accident consequences.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The proposed change would enhance the margin of safety by reducing the possibility of an EDG failure due to contaminated fuel or fuel starvation, ensuring an adequate supply of lube oil for an extended EDG run, ensuring proper operation of the EDG control circuits, ensuring a voltage well within the design tolerance of the required electrical equipment, providing increased confidence of EDG reliability by requiring increased EDG testing due to the total number of failures in the last 100 valid tests, and by lengthening the EDG run test from 8 to 24 hours which provides added assurance the EDG will function as designed.

Relaxations - Surveillance 4.8.1.1.2a.3) which required verification that a fuel transfer pump started and transferred fuel from the storage tank to the day tank in accordance with the frequency of Table 4.8-1 is revised and renumbered as 4.8.1.1.2b. This revised version requires a demonstration on a 92 day frequency with an automatic start.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The EDG fuel transfer system is not an initiator to any FSAR DBA. This surveillance was revised to enhance consistency with STS and NRC guidance. The intent of this surveillance is to ensure that the fuel transfer system will function as designed by automatically transferring fuel from the storage tank to the day tank when a predetermined low level is reached in the day tank. The system is designed to automatically maintain an adequate fuel supply to the EDG during an extended run. The existing surveillance did not require that the automatic aspect of this function be demonstrated

and because of the frequency of this surveillance and the relatively short EDG run time associated with the surveillance, most of the required pump starts are manual. The revised surveillance better demonstrates the OPERABILITY of the design by requiring the test to demonstrate the pump's auto-start capability. The proposed frequency is a relaxation, but the proposed frequency is consistent with STS and NRC guidance. The frequency will provide adequate assurance of pump OPERABILITY with the added benefit of verifying its auto-start capability. This change will have no impact on the consequences of an accident.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The revised surveillance better demonstrates the design of the EDG fuel system and its capability to perform uninterrupted on an extended basis.

Deletions - The surveillance requirement (4.8.1.1.2d.5c) to verify that the EDG cooling system functions are within design limits during the EDG 8 hour full-load test is deleted. Current NRC guidance is that verification of EDG cooling water operation within design limits during the 18 month EDG load test is no longer necessary. EDG cooling water operation is verified OPERABLE during the monthly (or weekly if specified in Table 4.8-1) one hour load test (Surveillance 4.8.1.1.2a.5).

Surveillance Requirement 4.8.1.1.2e verifies EDG independence by simultaneously starting both EDGs when shutdown. This surveillance requirement has been reworded and renumbered as described in the Administrative Changes Section above. The requirement to perform the surveillance when both units are shutdown is deleted. The control logic of new design allows this surveillance to be performed with one or both units at power.

1. Operations of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The requirement to verify EDG cooling water system operation within design limits during the 18 month EDG load test is unnecessary since this verification is also required to be performed during the monthly EDG one hour load test. Since the EDG cooling water temperatures will stabilize within one hour, the monthly one hour EDG load test adequately verifies the EDG cooling water system OPERABILITY. Therefore, deletion of the 18 month EDG load test requirement to verify EDG cooling system operation within design limits will not

significantly increase the probability of an EDG failure during a LBLOCA. Also, since an EDG loss is considered during a LBLOCA, deletion of this surveillance requirement does not increase the consequences of this accident either.

An emergency EDG start signal due to ESF actuation overrides the test mode of EDG operation and allows the EPS to realign itself for emergency operation. Therefore, performance of Surveillance Requirement 4.8.1.1.2e at power does not adversely affect FSAR analyzed accidents.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. EDG cooling system operation with design limits is verified monthly by TS 4.8.1.1.2a.5. Trending of this surveillance's results provides a method to determine if the EDG cooling system performance is degrading. Corrective ACTION can be scheduled to correct any potential degradation problems. Therefore, deletion of the 18 month EDG cooling system OPERABILITY verification surveillance does not significantly reduce the margin of safety.

   An ESF actuation signal overrides an EDG operating in the test mode. Therefore, EDG simultaneous start testing at power does not reduce the margin of safety either.

SURVEILLANCE 4.8.1.1.3

More Restrictive - The reporting requirements for EDGs is being expanded to include both valid and nonvalid failures.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. This change results in a more restrictive administrative reporting requirements. Reporting requirements have no impact on previously analyzed analyses or consequences.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation.

TS 3/4.8.1.1 AC SOURCES - OPERATING

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The margin of safety as defined in the bases is basically unaffected by this reporting requirement.

SURVEILLANCE 4.8.1.1.4

Deletions - This surveillance to demonstrate the OPERABILITY of the cranking diesels is being deleted in its entirety.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The cranking diesel generators are not safety-related and no credit is taken for them in the FSAR DBA analyses. They have no effect on the probability of an accident. They are not used for the mitigation of a DBA, thus they have no impact on the consequences.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. The cranking diesels are located remotely from plant vital equipment and there are no possible failures of these diesels which could create a new or different accident.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. Use of the cranking diesel is not required for any DBA analyzed in the FSAR; therefore, deletion of the equipment from the TS will have in impact on the margin of safety.

TS 3/4.8.1.2 AC SOURCES - SHUTDOWN

LIMITING CONDITION FOR OPERATION

EPS Enhancement Changes - The fuel requirements for the existing EDGs are now referred to as Unit 3 requirements. Unit 4 specific requirements that the OPERABLE EDG, 4A or 4B, have a day tank containing a minimum of 230 gallons of fuel and that its fuel storage system contain a minimum of 34,700 gallons of fuel are added. The addition of unit/EDG specific requirements are a result of the differences in EDG system design between the two EDGs being added by the EPS Enhancement Project, EDGs 4A and 4B, and the existing EDGs, 3A and 3B. Design details and a safety analysis of the modifications are provided in Reference 1.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The storage of the fuel oil will be in accordance with the existing fire protection program such that the probability or consequences of a fire will not be significantly increased. These requirements do not affect the initiator of any other accident evaluated in the FSAR and provide assurance that the required EDG(s) will be available to mitigate the consequences of an accident involving a LOOP for at least seven days.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation. The fuel oil system will be installed and maintained in accordance with the design details and safety analysis as presented in Reference 1 and, therefore, will not create the possibility of a new or different kind of accident.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety, since the fuel oil requirements for the new EDGs will provide a seven day supply of fuel oil as stated in the TS bases.

Administrative Changes - Change the wording of LCO 3.8.1.2.a from "or one offsite circuit supplying at least one 4160 volt bus, A or B," to "or an alternate circuit, between the offsite transmission network and the 4160 volt bus, A or B, and", to provide additional clarity. Combine LCOs 3.8.1.2.b and 3.8.1.2.c into one LCO 3.8.1.2.b with numbered subsections to enhance the LCO's consistency with the STS.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. This revision does not result in any changes to the plant's operating requirements since the changes are administrative only, so as to provide additional clarity and promote consistency.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation. The changes are administrative only, so as to provide additional clarity and promote consistency.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The changes do not result in any changes in the plant's operating requirements, introduce any new modes of operation, or add any new equipment. The changes are administrative only, so as to provide additional clarity and promote consistency.

More Restrictive - Add the following requirements to specification 3.8.1.2.b: 1) For both units add the requirement that the OPERABLE EDG have available an energized MCC as identified by specification 3.8.1.1.b. This specification will assure that the OPERABLE EDG has an energized MCC available as a source of power for its associated auxiliaries. 2) For Unit 3, EDGs 3A and 3B, that a solenoid valve be OPERABLE to permit fuel oil flow by gravity from the day tank to the skid-mounted tank. 3) For Unit 3, that lubricating oil storage be available containing a minimum of 120 gallons of lubricating oil and that the capability be available to transfer the lubricating oil from storage to the EDG. (Items 2 and 3 only apply to the existing EDGs 3A and 3B because of their design.)

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated, since additional and more limiting requirements are imposed on plant operations by these additions to this specification. The locations and volumes of lubricating and fuel oil are in compliance with the existing fire protection program, therefore, the probability or consequences of a fire will not be significantly increased. These requirements do not affect the initiator of any other accidents evaluated in the FSAR and provide added assurance that equipment required to mitigate an accident is available.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation. These changes add additional and more restrictive requirements.

TS 3/4.8.1.2 AC SOURCES - SHUTDOWN

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety, since the addition of this specification provides added assurance that a EDG will be available for the mitigation of an accident involving a LOOP. These additional requirements assure that the OPERABLE EDG has both lubricating oil and an energized source of power available. The locations and volumes of lubricating and fuel oil are in compliance with the existing fire protection program. The additions to the specification result in additional and more limiting requirements on plant operations.

APPLICABILITY

Administrative Changes - The asterisk note identifier was moved next to each of the modes for which it applies ("APPLICABILITY*: MODES 5 and 6" was changed to "APPLICABILITY: MODES 5* and 6*"). Also the parenthesis enclosing the footnote and a comma are deleted.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. This revision does not result in any changes to the plant's operating requirements since the changes are administrative only.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation. The changes are administrative only.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The changes do not result in any changes in the plant's operating requirements, introduce any new modes of operation, or add any new equipment. The changes are administrative only.

TS 3/4.8.1.2 AC SOURCES - SHUTDOWN

ACTIONS

Administrative Changes - Change the wording of the ACTION statement from "a vent greater than or equal to 2.2 square inches" to "a greater than or equal to 2.2 square inch vent." Inserted the phrase "as soon as possible" in reference to the corrective actions for restoring the required sources. Deleted the repetitive use of the phrase "initiate corrective action to" in the last sentence of the ACTION statement.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. This revision does not result in any changes to the plant's operating requirements since the changes are administrative only to provide additional clarity.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation. The changes are administrative only to provide additional clarity.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The changes do not result in any changes in the plant's operating requirements, introduce any new modes of operation, or add any new equipment. The changes are administrative only to provide additional clarity.

TS 3/4.8.1.2 AC SOURCES - SHUTDOWN

SURVEILLANCE

Administrative Changes - Add an additional "closing" parenthesis after "4.8.1.1.2.a.5)" in the third line of Surveillance Requirement 4.8.1.2.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated since this change is purely editorial.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated since this change is purely editorial. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The change only corrects a typographical error to a referenced surveillance number.

More Restrictive - Add specification 4.8.1.1.1.a to the specifications required to be performed to demonstrate the A.C. electrical power sources OPERABLE. Specification 4.8.1.1.1.a verifies OPERABILITY of required offsite power sources.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated, since additional and more limiting requirements are imposed on plant operations by the addition of this surveillance requirement. This additional surveillance requirement provides added assurance that offsite power to the D.C. electrical system is available and will be available to mitigate an accident.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated, since additional and more limiting requirements are imposed on plant operations by the addition of this specification. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation.

TS 3/4.8.1.2 AC SOURCES - SHUTDOWN

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety, since the addition of this specification provides added assurance that offsite power sources are and will be available to power the D.C. electrical system to prevent/mitigate an accident. The addition of this specification imposes additional and more limiting requirements on plant operations.

TS 3/4.8.2.1 DC SOURCES - OPERATING

LIMITING CONDITION FOR OPERATION

EPS Enhancement Changes - The proposed change revises the specification to reflect the existence, following the completion of the EPS Enhancement Project, of a spare 125-volt Battery Bank (D-52) and eight (8) dedicated (2 per battery) full capacity battery chargers (currently there are four (4) dedicated and two (2) swing battery chargers). The proposed change specifies which battery charger(s) can be supplying power to a required battery bank for the battery bank to be considered OPERABLE. In addition the proposed change adds the specific MCC which powers a specified battery charger for credit to be taken for a battery charger being OPERABLE. The proposed change also requires, via a new footnote, that each of the battery chargers used to satisfy this LCO be powered by a different MCC. It also, identifies the EDG(s) associated with each MCC required to be OPERABLE to supply emergency power (swing MCCs 3D and 4D require two EDGs 3A and 3B or 4A and 4B, respectively) with a clarifying footnote, identified by a "#" symbol, identifying that inoperability of the EDG(s) specified in the LCO does not constitute inoperability of the associated battery chargers or battery banks.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated for the following reasons:

   The number of D.C. electrical sources required to be OPERABLE following this amendment remains the same as in the RTS; only existence of a new full capacity 125-volt D.C. Battery Bank (D-52) has been added. The new "spare" battery bank OPERABILITY will be assured by the new battery bank undergoing the same surveillances as the existing battery banks. The new battery bank has adequate capacity to supply the highest duty cycle requirement for any of the existing station batteries and to maintain the battery terminal voltage above the minimum required to operate the loads. The addition of this battery bank allows one battery bank to be taken out of service without the unit(s) entering into an ACTION statement.

   With the enhanced EPS design two battery chargers are being added and the two existing "swing" chargers are being dedicated to a particular battery. Though the number of battery chargers required to be OPERABLE decreases from five (5) to four (4), each OPERABLE battery bank will be connected to an OPERABLE full capacity charger. The criteria used for the existing LCO and for the proposed LCO for the new design is identical, i.e. no single failure concurrent with a LOOP, can result in more than one battery bank without an OPERABLE charger.

TS 3/4.8.2.1 DC SOURCES - OPERATING

This amendment adds additional requirements for equipment associated with an OPERABLE battery bank. The revised specification provides requirements as to which MCC must be supplying power to a battery charger for it to be considered OPERABLE. The addition of this requirement assures that no single failure of an MCC concurrent with a LOOP can result in more than one battery bank without an OPERABLE charger.

Following the EPS Enhancement Project completion, each unit will require 3 EDGs to be OPERABLE to supply emergency power (both of its and one of the other unit's EDGs). The requirement that each battery charger used to satisfy the requirement of this LCO have its associated EDG(s) OPERABLE precludes the potential, during a scenario of one unit at power and one unit shutdown, for a battery charger to be aligned to an inoperable EDG without the operating unit being in an ACTION statement. The addition of this requirement assures that no single failure of a EDG concurrent with a LOOP can result in more than one battery bank without an AC emergency power source. The added clarifying footnote was added to assure that the correct ACTION statement (new 4.8.2.1a) is entered if a required MCC can not be powered from an operable EDG.

The equipment involved in this change are not initiators of FSAR evaluated accidents and the proposed requirements will ensure that no single failures, as assumed in the FSAR analyses, will prevent the plant from mitigating the consequences of an accident as evaluated in the FSAR, thus there is no significant increase in the probability of the occurrence of an accident or significant increase in the consequences of previously analyzed accidents.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. The added requirements are in accordance with the design details and safety analysis as presented in Reference 1, and assure that no single failure concurrent with a LOOP can result in the loss of more than one D.C. electrical system. As discussed in this safety evaluation, a Failure Modes and Effects Analysis has been preformed and no new accidents are created. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety, since the new requirements will assure that no single failure concurrent with a LOOP can result in the loss of more than one D.C. electrical train. The number of required OPERABLE D.C. electrical systems remains the same between the proposed requirements and the RTS.

TS 3/4.8.2.1 DC SOURCES - OPERATING

The PTP D.C. system requires 3 of 4 D.C. busses (and associated chargers) to be operable to perform its accident functions. RTS (existing system) require chargers 3B, 4A and 4S to be OPERABLE (at all times) and 2 of 3 chargers 3A, 3S and 4B to be OPERABLE for the plant to not be in an ACTION statement (Note: Table 3.8.1 matrix of the RTS shows these conditions). If one of the chargers 3B, 4A, or 4S were out of service without the LCO, then a LOOP with a single failure of the 3A or 4B battery /bus or single EDG failure could result in 2 of the 4 D.C. busses being without OPERABLE chargers as described in the RTS bases. With all three of the above required battery chargers OPERABLE, Operator action is still required to align the swing charger 3S to either the 4A or 3B D.C. bus so that 3 D.C. busses are energized via the chargers. The Conditional Failure Probability of this action is estimated at 1.0E-2.

For the new system, the proposed TS require a select 4 of 8 chargers to be OPERABLE. The new design of the Enhanced EPS, eliminates the above condition where failure of the 3A or 4B battery/bus results in the condition of two D.C. busses being without a battery charger. If the same scenario (including single failure) occurs as described above, D.C. system failures will occur only if one of the other three D.C. busses or associated chargers fails. The Conditional Probability of this event is estimated at 6E-4 (3 x (bus failure probability (1.1E-6) + charger failure probability (1.9E-4))).

Thus, the new design does not rely on Operator action and its reliability is over an order of magnitude greater than the existing when the minimum equipment required by the LCO is satisfied (see Reference 4)

Administrative Changes - Change the wording of LCO 3.8.2.1 to refer to 125 volt DC batteries as 125-volt D.C. Battery Banks and refer to battery chargers as associated full capacity chargers.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. This revision does not result in any changes to the plant's operating requirements since the changes are administrative only to provide additional clarity.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation. The changes are administrative only to provide additional clarity.

TS 3/4.8.2.1 DC SOURCES - OPERATING

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The changes do not result in any changes in the plant's operating requirements. The changes are administrative only to provide additional clarity.

APPLICABILITY

Administrative Changes - Change the wording to read "MODES 1, 2, 3, and 4." from "MODES 1, 2, 3, 4".

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. This revision does not result in any changes to the plant's operating requirements since the change is administrative only.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation. The change is administrative only.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The change does not result in any changes in the plant's operating requirements, introduce any new modes of operation, or add any new equipment. The change is administrative only.

TS 3/4.8.2.1 DC SOURCES - OPERATING

ACTIONS

EPS Enhancement Changes -

a) Add an ACTION statement addressing one or more of the required OPERABLE battery charger's associated EDG being inoperable. The resulting ACTION is to restore the inoperable EDG to OPERABLE status in 72 hours or be in at least HOT STANDBY within the following 6 hours and in COLD SHUTDOWN within the following 30 hours. This ACTION statement AOT is consistent with the AOT imposed in ACTION statement 3.8.1.1b.

b) Reformat ACTION statements 3.8.2.1a and 1b into a single ACTION statement, 3.8.2.1b, and delete Table 3.8-1, "BATTERY CHARGER ALLOWABLE OUT-OF-SERVICE TIMES" with its associated footnote. The reformatted ACTION statement applies to either an inoperable battery bank or to both of the battery chargers associated with a battery bank being inoperable. This reformatting results in the ACTION statement format being more consistent with the STS. In addition to the formatting change, make the following specific changes to the ACTION statement:

i) Delete requirement to verify the OPERABILITY of the two EDGs within two hours if certain combinations of battery chargers are inoperable. This requirement was contained in the footnote applying to Table 3.8-1.

ii) Delete requirement to verify the OPERABILITY of the opposite train EDG within two hours or be in HOT STANDBY within 12 hours and COLD SHUTDOWN within 30 hours if one of the required batteries is inoperable.

iii) Reduce the AOT for a required battery or both of the battery chargers associated with a battery from 24 to two hours before initiating unit shutdown. An exception to allow extension of this AOT to 24 hours is proposed, in an associated footnote, if one unit is in MODE 5 or 6 and each of the remaining required battery chargers is capable of being powered from its associated diesel generator(s).

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated.

a) Following the EPS Enhancement Project completion, each unit will require 3 EDGs to be OPERABLE to supply emergency power (both of its and one of the other unit's EDGs). The requirement that each battery charger used to satisfy the requirements of this LCO to have an associated EDG(s) OPERABLE precludes the potential, during a scenario of one unit at power and one unit shutdown, for a battery charger to be aligned to

an inoperable EDG without the operating unit being in an ACTION statement. This ACTION statement provides an AOT when this equipment is not satisfied. Since the time limit imposed is consistent with the AOT imposed for the loss of a required EDG, there is no increase in the probability or consequences of an accident.

b) The format changes do not result in any changes to the plant's operating requirements since the changes are administrative only.

i) The requirement to verify the OPERABILITY of both EDGs is no longer appropriate (see discussion in item b.3 below). This requirement was due to the possibility that relying on certain combinations of battery chargers could result in one battery bank not being supplied power by a battery charger or a single MCC could be supplying power to both of the battery chargers for a unit. This possibility will not exist following completion of the EPS Enhancement Project. The addition of two battery chargers, the dedication of the two "swing" battery chargers, in conjunction with the requirement that each battery charger be powered from a different MCC has alleviated this concern.

ii) Except when the opposite unit is in MODE 5 or 6, the revised ACTION statement requirements are more stringent than the original requirement. When a required battery is inoperable for greater than 2 hours, the revised ACTION statement requires the units to begin shutting down instead of verifying the OPERABILITY of the opposite train EDG. This is consistent with the STS. Allowing a required battery bank to be inoperable for 24 hours provided one unit is in MODE 5 or 6 without testing the opposite train diesel is acceptable following completion of the EPS Enhancement Project, since the potential effect of an inoperable battery is less severe and the 24 hour AOT is not less restrictive than the RTS. In the original design, an inoperable battery bank could result in the inability to supply emergency power to two AC trains (one per unit). Following the EPS Enhancement Project modifications, an inoperable battery bank could result in the ability to supply emergency power to one AC train. This 24 hour AOT, though a deviation from the STS, is necessary to provide a reasonable amount of time to perform maintenance on a DC bus without a dual unit shutdown being required and this amount of time is provided in the RTS.

iii) For the case of an inoperable required battery the amended ACTION statement is as restrictive or more restrictive than the RTS. The RTS allows a required battery to be inoperable for 24 hours prior to initiation of a plant shutdown. Following the incorporation of this amendment, a required battery could only be inoperable for two hours prior to initiating a plant shutdown unless one unit was in MODE 5 or 6 and each of the remaining required battery chargers is capable of being powered from its associated diesel generator(s). The modification of this ACTION statement for an inoperable required battery imposes more limiting requirements on plant operations.

In the RTS, Table 3.8-1 identified the AOTs for different combinations and numbers of inoperable battery chargers. In the revised ACTION statement, if both battery chargers associated with a single required battery bank are inoperable the AOT is two hours. If more than one required battery bank has both of its associated battery chargers inoperable then the units would enter TS 3.0.3 which has an AOT of one hour. The revised ACTION statement is as restrictive or more restrictive than the time limits imposed by Table 3.8-1 except for certain combinations of battery charger inoperability allowed by the RTS. Certain combination of three inoperable battery chargers, with the current design, would result in one required battery not receiving power from an OPERABLE charger. Table 3.8-1 for these combinations of inoperable battery chargers provides an AOT of one hour. The revised ACTION statement provides an AOT of two hours for any combination of inoperable battery chargers that does not result in more than one of the required battery banks being without an OPERABLE battery charger. Table 3.8-1 also contained an AOT of 72 hours if either one of the battery chargers dedicated to batteries 3A or 4B or the swing battery charger between the batteries was inoperable. Following this amendment an ACTION statement would not be entered into unless a single-failure vulnerability existed. This change in the AOT is due to the decreased vulnerabilities and consequences associated with an inoperable required battery/battery charger following completion of the EPS Enhancement Project as discussed in items i and ii above. Design details and a safety analysis of the modifications are presented in Reference 1.

TS 3/4.8.2.1 DC SOURCES - OPERATING

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated.

   a) This ACTION statement introduces no basic changes in operation or new modes of operation. It only supplies AOT restrictions on unit operation.

   b) No new types of equipment are added by this format change. The proposed change introduces no basic changes in operation or new modes of operation. The change is administrative only.

      i) The concerns which necessitated this requirement are resolved by the EPS Enhancement Project (see item 1.b.1 above) and, therefore, the deletion of the requirement does not create the possibility of a new or different kind of accident.

      ii) The removal of this ACTION statement in conjunction with the modification to the ACTION statement described as item b.3 is generally more restrictive ACTION requirements than the RTS. The proposed change introduces no basic changes in operation or new modes of operation.

      iii) The modification of the ACTION statement introduces no basic changes in operation or new modes of operation and is generally more restrictive than the original ACTION statement (see 1.b.3 above).

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety.

   a) This ACTION statement supplies an AOT for an EDG which could affect a unit's D.C. electrical system. The time limit imposed is consistent with the time limit currently imposed for an inoperable EDG which could affect a unit's A.C. and D.C. electrical systems, therefore, these time limits do not result in a significant reduction in the margin of safety.

   b) The format change does not result in any change in the plant's operating requirements, introduce any new modes of operation, or add any new types of equipment. The change is administrative in nature.

      i) The removal of this required ACTION does not involve a significant reduction in the margin of safety since the concerns which necessitated the requirement are resolved by the EPS Enhancement Project (see item 1.b.1 above).

TS 3/4.8.2.1 DC SOURCES - OPERATING

ii) Unless one unit is in MODE 5 or 6 the revised ACTION statement (item b.3) imposes more restrictive requirements on unit operation than the deleted requirement. With one unit in MODE 5 or 6 the revised ACTION statement allows a required battery to be out of service for 24 hours without the opposite train diesel being tested for OPERABILITY. The concern (see item 1.b.2 above) due to the plant's design which necessitated the testing will be resolved by the EPS Enhancement Project.

iii) For an inoperable required battery the revised ACTION statement imposes more limiting requirements on plant operations.

The revised ACTION statement is as restrictive or more restrictive than the time limits imposed by Table 3.8-1 except for certain combinations of battery charger inoperability allowed by the RTS. This does not involve a significant reduction in the margin of safety, since this change in the AOT is appropriate due to the decreased vulnerabilities and consequences associated with an inoperable required battery/battery charger following completion of the EPS Enhancement Project.

SURVEILLANCE REQUIREMENTS

EPS Enhancement Changes - As a result of the addition of a spare battery bank (D-52), the following changes are made to the surveillance requirements: 1) Add minimum battery terminal voltage requirements for the spare battery bank to surveillance 4.8.2.1.d (new TS 4.8.2.1.b), 2) Add a note to new Surveillance Requirements 4.8.2.1.d, e, and f that the testing may be performed with the plant operating with simulated loads if the tested battery bank is declared out of service and is not required to meet the applicable LCO's.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The addition of the surveillance requirement relating to the spare battery bank, D-52, only assures that the spare battery bank meets requirements equivalent to the existing battery banks, and therefore, does not result in a significant increase in the probability or consequences of an accident. The addition of the note that some surveillances can be performed with the units operating does not result in a significant increase in the probability or consequences of an accident, since this note only reflects the battery bank OPERABILITY requirements of 8.3.2.1.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed change introduces no basic changes in operation or new modes of operation. It insures the added battery bank is tested to equivalent requirements as the existing battery banks, and insures the OPERABILITY requirements of 8.3.2.1 are met.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety, since the changes insure that the added battery bank is tested to equivalent requirements as the existing battery banks and that the OPERABILITY requirements of 8.3.2.1 are met. The margin of safety provided by restricting the performance of certain surveillances during unit shutdown, is maintained because entry into an ACTION statement will not be required as discussed above.

Administrative Changes - Surveillance Requirements have been reformatted to more closely conform to the STS. This included consolidating and renumbering requirements, as well as editorial changes to enhance consistency with the STS text where possible. Specifically, Surveillance 4.8.2.1a and b requirements were consolidated into new Surveillance 4.8.2.1a, Surveillance 4.8.2.1d is renumbered 4.8.2.1b and Surveillance 4.8.2.1g is renumbered 4.8.2.1d. (The change in the required frequency for Surveillance 4.8.2.1a is discussed under the Relaxations Section below). Also, the wording change described under the Administrative changes for LCO applies to the surveillance requirements as well. Finally, on Table 4.8-2, the words "greater than or equal to" and the words "and greater than" were replaced with the symbols "$\geq$" and ">", respectively.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The reformatting of the Surveillance Requirements is intended to make the TS easier to use for plant operations personnel. Also, the editorial changes, which enhance consistency with STS text, provide for more universally accepted wording which should be more understandable to operations personnel.

   The above changes have not resulted in any new plant operating requirements. No accident initiating events are affected. These administrative changes do not affect the probabilities of the occurrence of, or consequences of, an accident.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation. The changes are non-technical in nature.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The changes only enhance the TS by consolidating requirements and utilizing STS wording/format which results in improved TS organization and understandability.

More Restrictive - A surveillance requirement has been added to the 7-day surveillance (4.8.2.1b.2) frequency to verify the minimum output voltage of the battery charger(s) connected to a battery bank; and if two battery chargers are connected to the bus, to verify the output currents of each battery charger is acceptable.

The surveillance requirement (4.8.2.1f.4) for verifying battery charger capacity at 18-month intervals has been modified to provide greater consistency with the STS by referring to the battery chargers by their current (Ampere) rating, not power (kilowatt) rating. This surveillance requirement also identifies which battery banks are associated with each rated battery chargers for clarity. Also, the required ampere output of the battery chargers during testing is changed from 290/390 $\pm$ 10 amperes at 125 volts to 300/400 amperes at 129 volts, and if two battery chargers are connected to the battery bank, the battery charger currents do not differ from each other by more than 10% of the battery charger's rating. The new required output values provide more restrictive acceptance criteria for the battery chargers.

Two additional surveillance requirements (new 4.8.2.1e and f) have been added, each involving performance discharge testing of battery banks that provide conformance to the STS. One surveillance requires a battery discharge test at 18-month intervals for any degraded or older (= 85% of service life) battery bank. The second surveillance requires a battery discharge test at 60-month intervals for all battery banks.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The existing battery chargers will be replaced by new battery chargers with performance features that meet or exceed the existing battery chargers. The new battery charger ratings are those certified by the battery charger manufacturer to assure performance in accordance with the DC system design. The new requirement to verify that the charging currents are within 10% of the charger's rating, when both chargers are connected to a DC bus, is added to ensure that each charger is carrying a relatively equal share of the DC load. The new surveillance requirements for the battery chargers are more stringent than previously required. New Surveillance 4.8.2.1e ensures that battery performance requirements are maintained for older batteries (i.e., late in their service life), or for degraded batteries. New Surveillance 4.8.2.1f also ensures that battery performance requirements are satisfied throughout the service life

of a battery. Acceptable performance of the new surveillance requirements provides greater assurance that the battery banks and battery chargers can perform in accordance with their design.

The function and/or operation of the battery banks and battery chargers, as analyzed in the FSAR, is not affected by this change. Also, these changes have not resulted in new types of plant operating requirements. No accident initiating events are affected. Therefore, these proposed changes do not change the probability or consequences of an accident previously evaluated.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The addition of these new surveillance requirements enhance the margin of safety by providing greater assurance that the battery banks and battery chargers can perform their required safety function if necessary.

Relaxations - The required surveillance (4.8.2.1a) frequency for verifying the pilot cell specific gravity for each 125 volt battery bank is reduced from once per 24 hours to once per 7 days. The revised surveillance frequency conforms to the requirements of the STS.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. Since PTP received its operating license in the early 1970's, industry experience on nuclear safety-related 125 volt battery banks, as concluded in IEEE 450, has determined that a rapid drop in pilot cell specific gravity during a 7 day period is highly unlikely. For this reason, the NRC has specified a 7 day surveillance frequency for 125 volt battery bank pilot cell specific gravity in the STS. The 24 hour surveillance requirement is inconsistent with present NRC guidelines.

Since IEEE 450 has determined that a 7 day surveillance frequency is acceptable for pilot cell specific gravity, it is concluded that this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. Based on the above discussion, IEEE 450 and NRC guidance indicates that a 7 day surveillance frequency versus a 24 hour surveillance frequency does not significantly reduce the margin of safety.

Deletions - Surveillances 4.8.2.1c and e have been deleted. Surveillances 4.8.2.1c required rotating the pilot cell and checking water level every 31 days. This surveillance requirement is a maintenance activity only and does not verify battery OPERABILITY. Surveillance 4.8.2.1e required performance of a battery charger visual inspection quarterly. This surveillance requirement is a preventive maintenance activity and does not verify battery charger OPERABILITY. Also, the requirement to verify a battery equalizing charge is started, found in Notes 1 and 2 of Table 4.8-2, has been deleted.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. Surveillances 4.8.2.1c and e are maintenance activities only. NRC guidance indicates that the above deleted surveillance requirements are not required to verify OPERABILITY of this equipment. The latest STS do not contain these surveillance requirements. Instead, Surveillance 4.8.2.1a contains a requirement to verify pilot cell electrolyte level weekly. Also, the requirement in Table 4.8-2, Notes 1 and 2, to start an equalizing charge when a battery's cell does not comply with the category A and B limits of the table, is not included in STS. An equalizing charge will be applied, as needed.

   Therefore, based on the above discussion, the probability or consequences of a previously evaluated accident is not significantly increased.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or a different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation. They only delete extraneous surveillance requirements that are not contained in the STS.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The deleted surveillance requirements (4.8.2.1c and e) are preventive maintenance items only. Failure to perform Surveillance 4.8.2.1c will have no effect on the margin of safety because Surveillance 4.8.2.1a, which is performed more frequently than Surveillance 4.8.2.1c (weekly versus monthly), verifies redundant pilot cell

requirements. The Surveillance 4.8.2.1e deletion does not significantly affect the margin of safety because its required inspection of the battery chargers does not determine if this equipment is OPERABLE or not. Finally, deletion of the requirement to verify that an equalizing charge is started in Notes 1 and 2 of Table 4.8-2 has no affect on the margin of safety, because the OPERABILITY requirements of the batteries are determined by the battery parameter limits of Table 4.8-2. An equalizing charge will be applied as needed, to conform with the OPERABILITY requirements.

TS 3/4.8.2.2 DC SOURCES - SHUTDOWN

LIMITING CONDITION FOR OPERATION

EPS Enhancement Changes - The wording of the LCO has been modified to require each battery bank to have at least one associated fully capacity charger capable of being powered by an OPERABLE EDG. These changes are consistent with the new EPS design in that each battery bank will be connected to two dedicated battery chargers, each powered from independent EDGs. Presently, each battery bank is powered from one dedicated battery charger and a shared (with one other battery bank) battery charger. Also, the single asterisked footnote, which defines the existing chargers as designated [sic] or spare, (and asterisk identifier) is deleted for this same reason.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. This change does not reduce the number of required OPERABLE battery banks and battery chargers. It does, however, specify that each required battery charger must be capable of being powered from an OPERABLE EDG. Therefore, this change does not increase the probability or consequences of any previously evaluated accidents.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in margin of safety. This change enhances the margin of safety by ensuring an available source of emergency power for each required battery charger.

Administrative Changes - The wording of the LCO has been revised to require "three 125 volt battery banks" to be OPERABLE instead of "three batteries".

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. This revision of the LCO does not result in any changes to the plant operating requirements. These changes only result in additional clarity for the LCO.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation. The changes are administrative only.

TS 3/4.8.2.2 DC SOURCES - SHUTDOWN

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The changes are administrative and only result in additional clarity as to each battery's required associated equipment.

APPLICABILITY

Administrative Changes - The double asterisk footnote identifier was changed to a single asterisk and moved next to each of the modes for with it applies ("APPLICABILITY**: MODES 5 and 6" was changed to "APPLICABILITY: MODES 5* and 6*"). The change in the footnote identifier was required due to the deletion of the footnote previously identified by a single asterisk. This deletion has been previously discussed as an EPS Enhancement Change associated with the Limiting Conditions for Operation of TS 3/4.8.2.2. Also, the footnote wording is modified to state "...see the corresponding Limiting Condition for Operation 3.8.2.1", instead of "...see Specification 3.8.2.1".

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. This revision does not result in any changes to the plant's operating requirements since the changes are administrative only.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation. The changes are administrative only.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The changes do not result in any changes in the plant's operating requirements, introduce any new modes of operation, or add any new equipment. The changes are administrative only.

TS 3/4.8.2.2 DC SOURCES - SHUTDOWN

ACTIONS

EPS Enhancement Changes - The ACTION statement wording "...inoperable and/or associated chargers inoperable ..." is changed to "... required associated full-capacity chargers inoperable or not capable of being powered from an OPERABLE diesel generator ...". This change reflects the change in the wording made for the Limiting Condition for Operation.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. This change is administrative in nature and provided to maintain consistency with the new terminology specified in the Limiting Condition for Operation section.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation. The changes are administrative only to maintain consistency with the new terminology specified in the Limiting Condition for Operation section.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. This change enhances the margin of safety by requiring immediate ACTION to place the plant in a safer mode if a required battery charger is no longer capable of being powered by an EDG.

Administrative Changes - Change the wording of the ACTION statement from "batteries" to "battery banks". Also change "a vent greater than or equal to 2.2 square inches" to "at least a 2.2 square inch vent."

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. This revision does not result in any changes to the plant's operating requirements since the changes are administrative only to provide additional clarity.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation. The changes are administrative only to provide additional clarity.

TS 3/4.8.2.2 DC SOURCES - SHUTDOWN

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The changes do not result in any changes to the plant's operating requirements, introduce any new modes of operation, or add any new equipment. The changes are administrative only to provide additional clarity.

TS 3/4.8.3.1 ONSITE POWER DISTRIBUTION - OPERATING

LIMITING CONDITION FOR OPERATION

EPS Enhancement Changes - The EPS Enhancement Project adds two new 480 volt swing LCs (3H and 4H) and these LCs are now included as required LCs. Since LC H can be energized from either redundant train within a unit, a triple asterisk footnote has been added to identify this feature and its operability requirements. Also, a new swing (via LC 4H) MCC bus D (4D) has been added to Unit 4, similar to the existing MCC bus D (3D) for Unit 3, which now swings via LC 3H. Therefore, MCC Bus D requirements are reformatted into new items a and b.

The EPS Enhancement Project also adds two EDGs and modifies the existing distribution system so that each unit requires three EDGs, each with its associated train of AC busses (only selected busses are needed on the opposite unit), to meet the single failure criterion and to mitigate an accident. Two of the three EDGs must be from the associated unit. Only one opposite unit EDG with its associated train of AC busses is now required. Therefore, the OPERABILITY requirements for the opposite unit train of AC busses is modified accordingly.

In order to comply more closely with the STS, new OPERABILITY requirements for the existing 125 volt D.C. busses have been added. These new requirements also provide for the use of new spare battery D-52. This battery addition allows D-52 to power any single 125 volt D.C. bus if the normal battery bank for that bus is removed from service.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The accidents previously evaluated (LOOP and LBLOCA) required a selected line up of equipment for mitigation. The enhanced system with addition of two EDGs, two swing LCs, unitized MCC D busses and Spare Battery D-52 provides a greater degree of power source availability to power the required equipment. Required ESF loads are accommodated with the enhanced EPS configuration, and no single failure will prevent the enhanced EPS from performing its required safety function in the event of an accident on one unit and an orderly shutdown and cooldown of the other unit. The LBLOCA analysis as presented in the FSAR remains valid under the enhanced EPS configuration.

   These changes have not resulted in new types of plant operating requirements given that the requirements for new LC H and its associated footnote, MCC 3D and 4D, the spare battery D-52 and the opposite unit associated train are commensurate with the existing TS requirements. The addition of the 125 volt D.C. bus operating requirement is only an administrative change to comply more precisely with the STS. Thus, there is no increase in the probability of an accident.

There is also no increase in the consequences of an accident previously evaluated. The enhanced EPS and Spare Battery D-52 provides additional equipment to more effectively mitigate the consequences of the accidents analyzed in the FSAR.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed change introduces no basic changes in operation or new modes of operation. Although swing LCs utilize a new automatic, power-seeking, dead bus transfer logic, its failure modes have been analyzed for the Safety Analysis Report, as amended, for the EPS Enhancement Project (see Reference 1), and there are no single failures which could result in a new or different kind of accident. Spare Battery D-52 is utilized the same as the normally-assigned battery bank.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The addition of two new EDGs enhances the margin of safety by providing added onsite AC capacity and increased equipment availability. In addition, the new swing LCs, with their new logic feature, adds assurance that its required equipment have electric power from either available train. Also, existing MCC bus D (relabeled bus 3D) and new bus 4D unitize existing loads powered from existing MCC bus D to reduce each unit's reliance on the opposite unit's MCCs. Finally, safety-related Spare Battery D-52 provides an additional power source for any of the 125 volt D.C. busses which provides for greater availability of the DC busses.

Administrative Changes - The LCO has been slightly reworded to enhance consistency with the STS where possible. These revisions include moving the "vital sections" for MCC busses to a footnote. OPERABILITY requirements for 480 volt MCC Bus 3A have been transferred to LCO 3.8.1.1 and are no longer included in this LCO. OPERABILITY requirements for the opposite unit trains of AC busses have been modified to maintain the required ESF loads even with the most limiting single failure. The 480 volt MCC busses of the opposite unit trains are reformatted to maintain consistency with the revised format of items a and b. The footnote identified by two asterisks regarding the cross-tieing of LC or a shutdown unit has been reformatted since the actual content of the footnote has been transferred to LCO 3.8.3.2. The remaining footnote now refers to LCO 3.8.3.2.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The reformatting of the LCO is intended to make the TS easier to use for plant operations personnel. The transfer of OPERABILITY requirements of the MCCs which power the EDG auxiliaries and the footnote on cross-tieing LCs to other LCOs is part of the overall TS Section 8

reformatting effort which is also intended to make the TS easier to use.

The above changes have not resulted in any new plant operating requirements. No accident initiating events are affected. These administrative changes do not affect the probabilities of the occurrence of or the consequences of an accident.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated because these administrative changes do not reduce the OPERABILITY requirements of electrical busses required. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation. The proposed change only reformats the existing OPERABILITY requirements.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The changes only enhance the TS by reformatting requirements for improved organization and operator understanding.

More Restrictive - The requirement to ensure that the tie breakers are open between the Unit 3 and Unit 4 busses, and between redundant busses within a unit, has been expanded to also include 480 volt MCC busses, 120 volt AC vital panels and 125 volt D.C. busses, not just 4160 volt and 480 volt LC busses. New OPERABILITY requirements (items d through k and associated footnote denoted by "****") for the existing 120 volt AC vital panels have been added to this TS. These new LCOs for the existing 120 volt AC vital panels provide more consistency with the STS.

Also, the requirement for OPERABILITY of the opposite unit train of AC busses is modified to also specify required 480 volt LC busses, along with the required 4160 volt bus and 480 volt MCC busses.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The requirement to ensure that tie breakers are open for the 480 volt MCC busses, 120 volt AC vital panels and 125 volt D.C. busses is more restrictive than the existing requirement. This provides additional assurance that the plant will respond to an accident in accordance with the plant's design.

   The new OPERABILITY requirements for the existing 120 volt AC vital panels is only an administrative addition to enhance consistency with the STS. The function and/or operation of the 120 volt AC vital panels as analyzed in the FSAR, is not affected by this change.

TS 3/4.8.3.1 ONSITE POWER DISTRIBUTION - OPERATING

The addition of the 480 volt LC busses to the opposite unit train of AC busses requirements does affect accidents previously evaluated because the LC busses must be energized if the MCC busses are energized. The LC busses were assumed to be OPERABLE in the FSAR accident analyses even though a TS did not require it. This was a valid assumption since OPERABILITY of the LCs was required to establish the OPERABILITY of the MCCs. This change only made the TS more complete.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed additional restrictions involve existing plant equipment and introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The additional proposed restrictions enhance the margin of safety by preventing the possibility of a failed-closed tie breaker between MCC busses. Also, additional proposed restrictions on the opposite unit 480 volt LCs, and on the 120 AC vital panels enhance the margin of safety by ensuring these required electrical busses are available.

Deletions - The footnote identified by three asterisks and the three-asterisk identifiers are deleted. The footnote no longer applies due to the design changes of the EPS Enhancement Project.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The footnote is deleted because the "normal" and "backup" power source configuration addressed in the footnote will no longer exist after implementation of the EPS Enhancement Project design changes. In addition, the ACTIONS referenced in this footnote have been deleted as discussed in the EPS Enhancement Changes and Administrative Changes sections above.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The note deletion is an editorial-type change because of the enhanced design and has no affect on the margin of safety.

TS 3/4.8.3.1 ONSITE POWER DISTRIBUTION - OPERATING

APPLICABILITY

Administrative Changes - Addition of the word "and" to enhance consistency with the STS.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. This change is purely editorial and it will not result in any changes to the plant operating requirements. Thus it has no impact on current FSAR analyses.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation. This change is purely editorial and has no effect on the possibility of accidents.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. This change is purely editorial and has not impact on the margin of safety.

ACTIONS

EPS Enhancement Changes - ACTION Statements "a" through "i" have been completely rewritten and consolidated into two new ACTION Statements ("a" and "b"). New ACTION Statement "a" provides the required plant response if any of the three required electrical trains (two from the associated unit and one from the opposite unit), except the required LCs and/or MCCs associated with the opposite unit, become inoperable. New ACTION Statement "b" provides the required plant response if any of the LCs and/or MCCs associated with the opposite unit become inoperable. New ACTION Statement "b" references new table 3.8-1 and 3.8-2 which, due to their tabular format, provide for easier understandability.

The consolidation of the old ACTION statements was a result of the LC/MCC reconfigurration effort of the EPS Enhancement Project. Since the new electrical distribution system has no shared MCCs between units or MCCs with "normal" and "alternate" power supplies, unique ACTION Statements "d" through "i" could be eliminated.

TS 3/4.8.3.1 ONSITE POWER DISTRIBUTION - OPERATING

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The accidents previously evaluated (LBLOCA and LOOP) required a particular lineup of equipment for mitigation. The enhanced system with load redistribution and the addition of swing 4kV switchgears, swing 480 volt LCs, and 480 volt MCCs provides a greater degree of power source availability to power required equipment.

   The consolidation of ACTION Statements "a" through "i" provide for more restrictive ACTION Statements. The AOTs specified on Tables 3.8-1 and 3.8-2 are based on the AOTs for required equipment (eg., battery chargers, opposite unit EDG auxiliaries, etc.) that receive electrical power from the opposite unit's LCs/MCCs as specified. The two hour AOT is utilized for loss of power to a 125 volt D.C. bus and the 72 hour AOT is utilized for loss of power to the required opposite unit EDG auxiliaries. For cases where no required equipment (i.e., required to support the opposite unit's operation) is powered from an MCC, "N/A" is indicated in these tables. "N/A" means not applicable and no action is necessary. All of these AOTs for required equipment are just as restrictive or more restrictive than the existing requirements. Therefore, the probability that a required equipment power source is available is the same or increased, and there will be no increase in the consequences of the accidents analyzed in the FSAR. Also, since the new ACTION Statements are more restrictive, the amount of time that a plant can operate in a degraded condition is reduced.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. The new ACTION Statements are more restrictive, not less restrictive, than the old ACTION Statements. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. Due to the more restrictive nature of the new ACTION Statements, continued plant operation with equipment inoperable will lessen. Therefore, the overall margin of safety is enhanced.

TS 3/4.8.3.1 ONSITE POWER DISTRIBUTION - OPERATING

More Restrictive - A new ACTION Statement "c" is added to provide required ACTIONs if the equipment specified in new LCO items "d" through "k" (i.e., the 120 volt AC vital panels) becomes de-energized. A second new ACTION statement ("d") is also added to provide required ACTIONS if the equipment specified in new LCO items "l" through "o" (i.e., the 125 volt D.C. busses) becomes de-energized. These new ACTION Statements for the existing 120 volt AC vital panels and 125 volt D.C. busses provide more consistency with the STS. The new ACTION Statements apply to both units simultaneously since this equipment is shared between units.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The new ACTION Statements apply operational restrictions for required equipment where none previously existed. Due to these new restrictions, there exists a higher probability that the required equipment for FSAR analyzed accidents will be available.

   These changes provide for plant operating requirements that are commensurate with existing TS requirements. Thus, there is no increase in the probability or consequences of an accident.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The new restrictions for the 120 volt AC vital panels and 125 volt D.C. busses enhance the margin of safety by requiring dual-unit plant shutdowns and cooldowns if a 120 volt AC vital panel or 125 volt D.C. bus remains de-energized.

Relaxations - The ACTION requirement for when the 480 volt MCC 3A is deenergized is now included in new ACTION "b" of LCO 3.8.1.1. This new ACTION statement has increased the AOT for MCC Bus 3A from 8 to 72 hours.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. Since the primary function of MCC 3A is to power the EDG 3 A auxiliaries, the OPERABILITY requirement for this MCC is included with the EDG TS 3.8.1.1. An AOT of 72 hours is appropriate, since it is the most limiting AOT associated with the equipment powered from this MCC.

None of the other equipment powered from this MCC (e.g. a few miscellaneous MOVs and turbine generator loads) have a more restrictive AOT and most is not addressed in the TS. Since this change does not involve any initiators of accidents the probability is not increased nor does it affect an accident's consequences.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new equipment is added by this change. The proposed change introduce no basic changes in plant operation or new modes of operation.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The primary safety related loads powered from MCC 3A are the EDG 3A auxiliaries and the new proposed 72 hour AOT is the same as the AOT for the EDGs. Therefore, the margin of safety is unchanged.

TS 3/4.8.3.2 ONSITE POWER DISTRIBUTION - SHUTDOWN

LIMITING CONDITION FOR OPERATION

EPS Enhancement Changes - The description of the 480 volt emergency bus requirements has been modified to reflect additional LCs and MCCs added by the EPS Enhancement Project. Due to the addition of new LCs 3H/4H, MCCs 3K/4K, MCC 4D and MCC 4J, the LCO now requires the availability of three 480 volt LCs and three MCC bus vital sections (four MCC bus vital sections for Unit 4).

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The enhanced system with load redistribution, and the addition of swing 480 volt LCs and 480 volt MCCs provides a greater degree of power source availability to power the required equipment. With the required EPS configuration, no single failure can prevent the enhanced EPS from performing its required safety function in the event of an accident on one unit and an orderly shutdown and cooldown of the opposite unit. The LBLOCA analysis as presented in the FSAR remains valid under the enhanced EPS configuration.

   These changes have not resulted in new types of plant operating requirements given that the requirements for the new LCs/MCCs, and the associated level of detail, is commensurate with the requirements for the existing TS. Thus, there is no increase in the probability of an accident.

   There is also no increase in the consequences of an accident previously evaluated. The additional LCs/MCCs provide greater train redundancy to more effectively mitigate the consequences of the accidents analyzed in the FSAR.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed changes introduce no basic changes in plant operation or new modes of operation. Although the swing LCs H utilize a new automatic, power-seeking, dead bus transfer logic, their failure modes have been analyzed for the Safety Analysis Report, as amended, for the EPS Enhancement Project, and there are no single failures which could result in a new or different kind of accident.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The addition of the new LCs/MCCs enhances the margin of safety by providing greater independence between redundant electrical trains within a unit and between units. In addition, new LC H with its power-seeking feature adds assurance that its required equipment have electric power.

TS 3/4.8.3.2 ONSITE POWER DISTRIBUTION - SHUTDOWN

Administrative Changes - The LCO wording has been slightly modified by adding "in a specified manner" to enhance conformance with the STS. Also, a clarification phrase has been added to denote that the required train of emergency busses must be associated with the shutdown unit, not the opposite unit. Finally, a new single asterisk footnote is added, which is essentially a relocation of old double asterisk footnote from TS 3/4.8.3.1 regarding the cross-tieing of LCs. This footnote is also expanded to better clarify the intent of the footnote and the discussed safety evaluation.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The administrative changes for STS format conformance and for asterisk footnote relocation and clarification are intended to make the TS easier to use by plant operations personnel. The addition of the clarification phrase provides better understanding as to what train of AC emergency busses is required since both units at PTP share the same TS.

   The above changes have not resulted in any new plant operating requirements. No accident initiating events are affected. The administrative changes do not affect the probabilities of the occurrence of, or the consequences of, an accident.

2. Based on the above discussion it can also be concluded that operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation. The changes are administrative only.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The changes only enhance the TS by conforming them more closely to the STS and providing more understandable footnotes and phrases.

More Restrictive - New OPERABILITY requirements have been added for the 120 volt AC vital busses and 125 volt D.C. busses. These new requirements have been proposed consistent with the STS, as appropriate, to assure power exists for required instrument and control channels for cold shutdown conditions.

TS 3/4.8.3.2 ONSITE POWER DISTRIBUTION - SHUTDOWN

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The change only adds an OPERABILITY requirement for existing equipment. This new requirement ensures that an adequate number of instrument and control channels are OPERABLE to monitor cold shutdown and refueling operations. The function and/or operation of the 120 volt AC busses and 125 volt D.C. busses as analyzed in the FSAR is not affected by this change.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed change introduces no basic change in plant operation or new modes of operation and no new types of equipment.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The proposed change will enhance the margin of safety by assuring an adequate power supply to instrument and control channels so that reactor operations in cold shutdown and refueling modes can be safely monitored by plant operations personnel.

APPLICABILITY

Administrative Changes - The Applicability format was changed by moving the location of the asterisk and changing the number of asterisks from one to three. Also, the actual footnote statement identified by asterisks is modified by changing reference from "Specification 3.8.3.1" to "the corresponding Limiting Condition for Operation 3.8.3.1".

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The changes described above only involve reformatting and are non-technical in nature. These changes have not resulted in any new plant operating requirements, nor are any accident initiating events affected. These administrative changes do not affect the probabilities of occurrence of, or the consequences of, an accident.

2. Based on the above discussion, it can also be concluded that operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation. The changes are administrative only.

TS 3/4.8.3.2 ONSITE POWER DISTRIBUTION - SHUTDOWN

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The changes only enhance the TS by reformatting the applicability and corresponding footnote for easier understandability.

ACTION

Administrative Changes - The ACTION Statement has been slightly modified to enhance consistency with the STS.

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. The changes are editorial in nature only, and have no effect on the probability or consequences of any FSAR analyzed accidents.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. No new types of equipment are added by this change. The proposed change introduces no basic changes in operation or new modes of operation. The changes are administrative only.

3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The changes are editorial in nature and have no effect on the margin of safety.

III. CONCLUSION

In conclusion, the addition of two new EDGs and their supporting equipment, the new electrical distribution system, the addition of battery chargers and the addition of the spare battery require changes to the existing TSs. The Safety Analysis, as amended, submitted by Reference 1, demonstrates that the enhanced EPS provides additional installed capacity at PTP such that the design basis accident of LOOP, plus a LBLOCA on one Unit, plus the single failure of an EDG, is mitigated with 3 EDGs available.

The 3 EDGs can be automatically loaded and manually loaded with the required loads for accident mitigation on one Unit and the safe shutdown on the non-accident Unit. In addition, the EDG loading capacity available for the design basis accident affords sufficient capacity for manual loading of the loads desired in the long-term recirculation phases of the accident or in the transition to cold shutdown for the non-accident Unit. The loads required to mitigate an accident are not changed. The EPS Enhancement Project utilizes equipment and concepts which have been successfully employed before on similar industrial components and systems. No new or otherwise unproven technology is involved. The new equipment is compatible with the existing system. As a result, the net effect on the plant with respect to safe shutdown and accident mitigation is an increase in availability and capacity over the existing system. Overall plant safety as measured by the availability of emergency power to the plant safety busses is improved under the enhanced EPS configuration.

From a probabilistic standpoint, the Safety Analysis, as amended, (see Reference 1) shows that the enhanced system provides more than an order of magnitude reduction in the overall failure frequency of the 4-kV busses to provide AC power in the case of the LOOP and LOOP with SI events, as compared to the existing configuration.

The design of the enhanced EPS also meets the Station Blackout Rule, 10 CFR 50.63. This is accomplished largely through a design feature which provides an alternate AC power supply to a blackout Unit through the use of an OPERABLE EDG on the non-blackout Unit.

Based on the foregoing, a no significant hazards consideration determination is appropriate. The amendment request does not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; (2) create the probability of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. Further, the amendment is of a type specifically identified by the NRC as not likely to involve a significant hazards consideration. (See 44 FR 7751, examples (vii) and ix).)

REFERENCES

1. FPL letter, L-90-196, dated June 4, 1990 from K.N. Harris to U. S. NRC with attachments: 1. Emergency Power System Enhancement Design Report, Revision 1; 2. Emergency Power System Enhancement Report - Supplement 1 Testing, Revision 1; 3. Emergency Power System Enhancement Report - Supplement 2 Safety Analysis, Revision 0; 4. Emergency Power System Enhancement Report - Response to NRC's Request for Additional Information, Revision 1; all dated May 1990.

2. PSB-1 Voltage Analysis for Electrical Auxiliary System; EBASCO Calculation EC-145 Revision 2, dated June 1990.

3. Safety Evaluation for EPS Technical Specification for High Head Safety Injection Pumps, JPN-PTN-SENJ-90-065, Revision 1, dated June 1990.

4. Electric Power System Description Notebook, Turkey Point Probabilistic Risk Assessment, PTN PRA 2.E, Revision 0.