Nuclear Operating Company

South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

March 6, 2008
NOC-AE-08002255
10CFR50.90

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
One White Flint North
11555 Rockville Pike
Rockville, MD 20852

South Texas Project
Units 1 and 2
Docket Nos. STN 50-498, STN 50-499
Proposed Amendment to Technical Specification 3.8.3.1

In accordance with the provisions of 10 CFR 50.90, STP Nuclear Operating Company (STPNOC) is submitting a request for an amendment to the South Texas Project Operating Licenses NPF-76 and NPF-80 to revise the required action and completion time for specific inverters governed by Technical Specification (TS) 3.8.3.1.

STP TS 3.8.3.1 allows the application of the Configuration Risk Management Program (CRMP) associated with Risk Managed Technical Specifications (RMTS) to the inverters with loads modeled in the STP Probabilistic Risk Analysis (PRA). However, the loads on the inverters and associated Distribution Panels DP001 and DP002 are of low risk significance and not modeled in the PRA. NEI 06-09, "Risk Managed Technical Specifications Guidelines" which is the basis for the STP RMTS does not allow the application of RMTS to components that are not modeled in the PRA where a risk-informed completion time cannot be calculated. Consequently, STPNOC may not apply RMTS to the inverters associated with DP001 and DP002. The proposed amendment will separate the requirements for DP001 and DP002 and provide these distribution panels with specified completion times consistent with the functions powered from the distribution panels.

The Enclosure provides a technical and regulatory evaluation of the changes. Proposed TS page markups are included as attachments to the Enclosure.

STPNOC requests approval by March 6, 2009 and requests 60 days for implementation.

STI: 32250229

A001
NRR

In accordance with 10 CFR 50.91(b), STPNOC is notifying the State of Texas of this request for license amendment by providing a copy of this letter and its attachments.

The STPNOC Plant Operations Review Committee has reviewed and concurred with the proposed change to the Technical Specifications.

If there are any questions regarding the proposed amendment, please contact Mr. Wayne Harrison at (361) 972-7298 or me at (361) 972-7454.

There are no commitments in this submittal.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on March 6, 2008.
Date

Charles T. Bowman
General Manager, Oversight

awh/

Enclosure: Evaluation of the Proposed Change

cc:
(paper copy)

Regional Administrator, Region IV
U. S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, Texas 76011-8064

Mohan C. Thadani
Senior Project Manager
U.S. Nuclear Regulatory Commission
One White Flint North (MS 7 D1)
11555 Rockville Pike
Rockville, MD 20852

Senior Resident Inspector
U. S. Nuclear Regulatory Commission
P. O. Box 289, Mail Code: MN116
Wadsworth, TX 77483

C. M. Canady
City of Austin
Electric Utility Department
721 Barton Springs Road
Austin, TX 78704

Richard A. Ratliff
Bureau of Radiation Control
Texas Department of State Health Services
1100 West 49th Street
Austin, TX 78756-3189

(electronic copy)

A. H. Gutterman, Esquire
Morgan, Lewis & Bockius LLP

Mohan C. Thadani
U. S. Nuclear Regulatory Commission

Thad Hill
Eddy Daniels
Catherine Callaway
Brad Porlier
Steve Winn
Staney Rostad
NRG South Texas LP

Ed Alarcon
J. J. Nesrsta
R. K. Temple
Kevin Pollo
City Public Service

Jon C. Wood
Cox Smith Matthews

C. Kirksey
City of Austin

ENCLOSURE

Evaluation of the Proposed Change

Subject: Proposed Amendment to Technical Specification 3.8.3.1

1.0 SUMMARY DESCRIPTION

2.0 DETAILED DESCRIPTION

3.0 TECHNICAL EVALUATION

4.0 REGULATORY EVALUATION

5.0 ENVIRONMENTAL CONSIDERATION

6.0 REFERENCES

ATTACHMENTS:
1. Technical Specification Page Markups
2. Technical Specification Bases Page Markups
3. Vital AC Distribution Panel Diagrams

ENCLOSURE

1.0 SUMMARY DESCRIPTION

The proposed amendment will incorporate a change to Technical Specification (TS) 3.8.3.1, "Onsite Power Distribution" to create separate requirements without the option to apply the Configuration Risk Management Program (CRMP) for the Train A and Train C inverters that power distribution panels DP001 and DP002, which do not have loads modeled in the PRA. The new actions will allow specific times to re-energize the distribution panels. The proposed new times are longer than the current TS because of the low safety significance of the loads on DP001 and DP002.

In accordance with NEI 06-09, RMTS may be applied to the other inverters covered by Technical Specification 3.8.3.1 because the PRA models loads on the inverters and can quantify their contribution to a risk-informed completion time (RICT). The loads on DP001 and DP002 are of low risk significance and are not modeled. Consequently, they have no quantified contribution to core damage frequency (CDF) or large early release frequency (LERF). This evaluation justifies the proposed changes to the requirements for DP001 and DP002.

2.0 DETAILED DESCRIPTION

STP TS ACTION 3.8.3.1.c and 3.8.3.1.d currently apply to all the distribution panels and read as shown below.

> c. With one A.C. vital distribution panel either not energized from its associated inverter, or with the inverter not connected to its associated D.C. bus: (1) within 2 hours reenergize the A.C. distribution panel or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; and (2) within 24 hours reenergize the A.C. vital distribution panel from its associated inverter connected to its associated D.C. bus or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
>
> d. With more than one A.C. vital distribution panel either not energized from its associated inverter, or with the inverter not connected to its associated D.C. bus: (1) within 1 hour reenergize at least five A.C. distribution panels or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; and (2) within 1 hour reenergize at least five A.C. vital distribution panels from their associated inverter connected to their associated D.C. bus or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

STPNOC proposes to revise TS 3.8.3.1 ACTION c ACTION d to be specific to DP1201 from LCO 3.8.3.1.d, DP1202 from LCO 3.8.3.1.e, DP1203 from LCO 3.8.3.1.f, and DP1204 from LCO 3.8.3.1.g such that the actions for these DPs will be unchanged and retain the option of applying the CRMP.

> c. With one of the A.C. vital distribution panels DP1201, DP1202, DP1203, or DP1204 either not energized from its associated inverter, or with the inverter not connected to its associated D.C. bus: (1) within 2 hours reenergize the A.C. distribution panel or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; and (2) within 24 hours reenergize the A.C. vital distribution panel from its associated inverter connected to its associated D.C. bus or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
>
> d. With more than one of the A.C. vital distribution panels DP1201, DP1202, DP1203, or DP1204 either not energized from its associated inverter, or with the inverter not connected to its associated D.C. bus: (1) within 1 hour reenergize at least three of these A.C. distribution panels or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; and (2) within 1 hour reenergize at least three of these A.C. vital distribution panels from their associated inverter connected to their associated D.C. bus or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

STPNOC proposes to add two new actions for DP001 and DP002 that do not include the option to apply the CRMP, but which revise the completion time based on the low safety significance of the loads on these distribution panels.

> e. With one of the A.C. vital distribution panels DP001 or DP002 either not energized from its associated inverter, or with the inverter not connected to its associated D.C. bus: (1) within 7 days reenergize the A.C. distribution panel, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; and (2) within 30 days reenergize the A.C. vital distribution panel from its associated inverter connected to its associated D.C. bus, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
>
> f. With more than one of the A.C. vital distribution panels DP001 or DP002 either not energized from its associated inverter, or with the inverter not connected to its associated D.C. bus: (1) within 1 hour reenergize at least one of these A.C. distribution panels, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; and (2) within 7 days reenergize at least one of these A.C. vital distribution panels from their associated inverter connected to their associated D.C. bus, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Current TS ACTIONs e and f will become ACTIONs g and h, respectively, as an administrative change to accommodate the new actions.

3.0 TECHNICAL EVALUATION

Class 1E Vital 120-vac System Design

AC control power for vital instrumentation and controls is supplied by six solid-state inverter/rectifier systems (per Unit) and six 480V Voltage Regulating Transformers as bypass sources connected as shown on Attachment 3 to this Enclosure. Distribution Panels DP1201 through DP1204 supply power to vital 120-vac Channel I through IV engineered safety feature (ESF) loads, respectively. Distribution Panels DP001 and DP002 supply 120-vac power to post-accident monitoring instrumentation. The inverter/rectifiers with auto transfer capabilities and bypass source transformers supplying power to instrumentation channels I and II are normally energized by 480-vac feeders from separate motor control centers (MCCs) of ESF Train A. The inverter/rectifiers with auto transfer capabilities and bypass source transformers supplying power to channels III and IV are normally energized by 480-vac feeders from MCCs connected to the 480-vac switchgear in Trains B and C, respectively. Upon loss of power from the 480-vac feeds, the inverter/rectifiers are automatically powered from their associated Class 1E DC system. Upon total loss an Inverter/Rectifier, the power to DP1201 thru 1204 is automatically transferred ("make before break") to the bypass source through the inverter's transfer switch. Single-phase, vital AC power from the inverter/rectifier is distributed by the instrumentation power supply busses consisting of six Class 1E vital 120-vac distribution panels.

Each inverter/rectifier assembly has two power supplies and a bypass source transformer. The normal power supply is 480-vac fed directly from an ESF power train MCC and the backup power supply is 125-vdc from one of four busses in the Class 1E DC distribution system. Normally, both power supplies to the inverter are available, with the 480-vac line supplying rectified AC power to operate the inverter. Rectified AC input voltage is slightly higher than the DC battery feed and a diode in the positive side of the battery feed is prevented from conducting while normal rectified AC power is present. When 480-vac input to the rectifier is lost, the blocking voltage on the diode is lost and the battery instantly feeds power to the inverter. Each bypass source transformer is also powered from 480-vac fed directly from an ESF power train MCC.

Each Class 1E vital 120-vac inverter has its own dedicated voltage regulating transformer (VRT) as its alternate source. The standby diesel generator (SDG) associated with the train provides emergency power to the VRT. Manually operated, mechanically interlocked main circuit breakers allowing "break before make" action in distribution panels DP001 and DP002 permit energization of the bus either by the corresponding inverter/rectifier or by an alternate single-phase VRT.

The inverters for distribution panels DP1201 through DP1204 in both units were recently replaced. As part of the inverter replacement, design changes were implemented which transferred Qualified Display Parameter System (QDPS) and Steam Generator Power Operated Relief Valve (SG PORV) loads from distribution panels DP001 and DP002 to DP1201 and DP1204, respectively.

Subsequently, PRA model STP_REV5 removed DP001, DP002 and their associated inverters from the model, in accordance with PRA update procedures, since they no longer support any modeled PRA functions. The unmodeled, non-RMTS TS functions powered from the DPs are of low risk significance as described in the table below. The functions powered from DP001 and DP002 are the same for both DPs, but each DP powers different channels. The table lists the functions powered from the DP with the applicable TS for the function, the effect for the condition where one of the DPs is not energized (i.e., during the 2-hour required action time of TS 3.8.3.1.c), and the effect when the DP is energized, but not from its inverter (prior to expiration of the 24-hour required action time of TS 3.8.3.1.c).

Affected Function • **Function-specific TS(s)** • **Action and Completion Time** • **Most limiting TS for ALL channels de-energized (both DPs)**	**Failure Mode and Risk Assessment**	
	DP not energized	**DP energized from alternate source (VRT)**
One channel of Reactor Coolant System (RCS) Subcooling Monitor • TS 3.3.3.6 o Restore in 7 days or shutdown[1] With both channels inoperable, restore at least one channel in 48 hours or shutdown [2]	1 of 2 subcooling channels failed. The monitors perform no actuation function. The subcooling monitor functions perform a post-accident function that is not credited in the PRA for the mitigation of any events. There is no quantifiable effect on CDF or LERF. There is no transient or operational impact.	TS 3.3.3.6 function is restored to operable status. VRT is 1E power with emergency power from SDG. If not energized from inverter, accident with LOOP and failure of the SDG will result in loss of the channel since it will not be battery backed. This combination of initiating event and subsequent failures is a very low frequency event. In addition the redundant channel would be available and there are other functionally redundant accident monitoring functions.
One channel of Reactor Vessel Water Level (RVWL) • TS 3.3.3.6 o Restore in 7 days or submit Special Report [1] With both channels inoperable, restore within 48 hours, or initiate alternate method of monitoring and submit a Special Report. [2]	1 of 2 RVWL channels failed. The monitors perform no actuation function and the PRA does not credit the RVWL indication for mitigation of any events. There is no quantifiable effect on CDF or LERF. There is no transient or operational impact.	TS 3.3.3.6 function is restored to operable status. VRT is 1E power with emergency power from SDG. If not energized from inverter, accident with LOOP and failure of the SDG will result in loss of the channel since it will not be battery backed. This combination of initiating event and subsequent failures is a very low frequency event. In addition the redundant channel would be available and there are other functionally redundant accident monitoring functions.

Affected Function • **Function-specific TS(s)** • **Action and Completion Time** • **Most limiting TS for ALL channels de-energized (both DPs)**	**Failure Mode and Risk Assessment**	
	DP not energized	**DP energized from alternate source (VRT)**
One channel of Extended Range Neutron Flux • TS 3.3.3.6 o Restore in 7 days or shutdown [1] • TS 3.3.3.5 o Restore in 30 days or shutdown • TS 3.3.1 (MODE 3 & 4) o Suspend positive reactivity changes With both channels of the function inoperable, restore in 48 hours or shutdown (TS 3.3.3.6) [2]	One channel inoperable. There is no transient or operational impact. Extended range neutron flux has no actuation functions and is not modeled in the PRA. There is no quantifiable effect on CDF or LERF.	TS 3.3.3.6 function is restored to operable status. VRT is 1E power with emergency power from SDG. If not energized from inverter, accident with LOOP and failure of the SDG will result in loss of the channel since it will not be battery backed. This combination of initiating event and subsequent failures is a very low frequency event. In addition the redundant channel would be available and there are other functionally redundant accident monitoring functions.
Two of the four channels of Steam Generator (SG) Blowdown Radiation Monitors • TS 3.3.3.6 o With one channel inoperable, restore in 30 days or submit Special Report With more than one channel of the function inoperable, restore within 7 days or submit a Special Report.	Affected channels of Blowdown Radiation Monitors fail. The monitors perform no actuation function and are not modeled in the PRA. There is no quantifiable effect on CDF or LERF. There is no transient or operational impact.	TS 3.3.3.6 function is restored to operable status. VRT is 1E power with emergency power from SDG. If not energized from inverter, tube rupture with LOOP and failure of the SDG will result in loss of the channel since it will not be battery backed. This combination of initiating event and subsequent failures is a very low frequency event. In addition the redundant channel would be available and there are other functionally redundant monitoring functions that can be used to identify the ruptured steam generator.

Affected Function • Function-specific TS(s) • Action and Completion Time • Most limiting TS for ALL channels de-energized (both DPs)	Failure Mode and Risk Assessment	
	DP not energized	DP energized from alternate source (VRT)
Two of the four channels of SG Main Steam Radiation Monitor • TS 3.3.3.6 o With one channel inoperable, restore in 30 days or submit Special Report With more than one channel of the function inoperable, restore within 7 days or submit a Special Report.	Affected SG Main Steam Radiation Monitors fail. There is no transient or operational impact. The monitors perform no actuation function and are not modeled in the PRA. There is no quantifiable effect on CDF or LERF.	TS 3.3.3.6 function is restored to operable status. VRT is 1E power with emergency power from SDG. If not energized from inverter, tube rupture with LOOP and failure of the SDG will result in loss of the channel since it will not be battery backed. This combination of initiating event and subsequent failures is a very low frequency event. In addition the redundant channel would be available and there are other functionally redundant monitoring functions that can be used to identify the ruptured steam generator.
One channel of RCB High Range Area Radiation • TS 3.3.3.6 o Restore within 30 days or submit a Special Report With both channels of the function inoperable, restore within 7 days or submit a Special Report.	RCB High Range Area Radiation Monitor fails. The monitor performs no actuation function and there is no transient or operational impact. The function does not affect CDF or LERF and is not modeled in the PRA.	TS 3.3.3.6 function is restored to operable status. VRT is 1E power with emergency power from SDG. If not energized from inverter, accident with LOOP and failure of the SDG will result in loss of the channel since it will not be battery backed. This combination of initiating event and subsequent failures is a very low frequency event. In addition the redundant channel would be available and there are other functionally redundant accident monitoring functions.

Affected Function • Function-specific TS(s) • Action and Completion Time • Most limiting TS for ALL channels de-energized (both DPs)	Failure Mode and Risk Assessment	
	DP not energized	DP energized from alternate source (VRT)
One channel of Reactor Containment Building (RCB) Purge Radiation Monitors • 3.3.2 o Restore in 30 days or maintain purge valves closed. With both channels of the function inoperable, maintain the purge valves closed.	Affected RCB Purge Radiation Monitor fails. Containment Ventilation Isolation (CVI) will not actuate on high radiation from affected monitor. PRA credits isolation from SI signal, not from radiation monitor. There is no quantifiable effect on CDF or LERF.	TS 3.3.2 function is restored to operable status. VRT is 1E power with emergency power from SDG. If not energized from inverter, accident with LOOP and failure of the SDG will result in loss of the channel since it will not be battery backed. This combination of initiating event and subsequent failures is a very low frequency event. In addition the redundant channel would be available and the CVI function will also be initiated separately from the SI signal or manually.
One channel of Containment Ventilation Isolation radiation monitor control • 3.3.2 o Restore in 30 days or maintain purge valves closed. With both channels of the function inoperable, maintain the purge valves closed.	CVI trains actuate to the closed (safe) position on high radiation due to loss of power (i.e., purge valves get close signal). There is no risk significance to the valves going to their safety position. The valves are normally closed so there is no transient operational impact.	TS 3.3.2 function is restored to operable status. VRT is 1E power with emergency power from SDG. If not energized from inverter, accident with LOOP and failure of the SDG will result in loss of the channel since it will not be battery backed. This combination of initiating event and subsequent failures is a very low frequency event. In addition, loss of power causes the channel to actuate to its safe position so the battery backup is not significant.

Affected Function • Function-specific TS(s) • Action and Completion Time • Most limiting TS for ALL channels de-energized (both DPs)	Failure Mode and Risk Assessment	
	DP not energized	DP energized from alternate source (VRT)
One channel of CRE HVAC Radiation Monitor • TS 3.3.2 o Place system in filtered make-up and recirculation within 7 days or shutdown With both channels of the function inoperable, within 1 hour place system in filtered make-up and recirculation or suspend movement of irradiated fuel assemblies, crane operations over the spent fuel pool, etc.	CRE HVAC Radiation Monitor channel fails and is unavailable to actuate CRE HVAC. TS 3.3.2 action places the system in a safe configuration.	TS 3.3.2 function is restored to operable status. VRT is 1E power with emergency power from SDG. If not energized from inverter, accident with LOOP and failure of the SDG will result in loss of the channel since it will not be battery backed. This combination of initiating event and subsequent failures is a very low frequency event. In addition the redundant channel would be available and control room can manually align the system.
One channel of CRE HVAC radiation monitor control • TS 3.3.2 o Place system in filtered make-up and recirculation within 7 days or shutdown CRE HVAC trains should actuate to meet the TS action requirement described above.	CRE HVAC trains actuate on high radiation due to loss of power. Actuation of the trains to the recirculation and filtered make-up mode is a safe mode of operation to minimize accident dose to the operators.	TS 3.3.2 function is restored to operable status. VRT is 1E power with emergency power from SDG. If not energized from inverter, accident with LOOP and failure of the SDG will result in loss of the channel since it will not be battery backed. This combination of initiating event and subsequent failures is a very low frequency event. In addition, the system actuates to its safety configuration on a loss of power so the battery backup is not significant.

Affected Function • Function-specific TS(s) • Action and Completion Time • Most limiting TS for ALL channels de-energized (both DPs)	Failure Mode and Risk Assessment	
	DP not energized	DP energized from alternate source (VRT)
One channel of FHB HVAC Radiation Monitor • TS 3.3.2 o Fuel movement within the spent fuel pool or crane operation with loads over the spent fuel pool may proceed provided the FHB exhaust air filtration system is in operation and discharging through at least one train of HEPA filters and charcoal adsorbers. With both channels of the function inoperable, the same action applies.	Affected FHB HVAC Radiation Monitor fails; FHB HVAC will not actuate on High Radiation from affected monitor. FHB radiation monitors have no potential to affect CDF or LERF and are not modeled in the PRA. TS 3.3.2 action places the system in a safe configuration.	TS 3.3.2 function is restored to operable status. VRT is 1E power with emergency power from SDG. If not energized from inverter, accident with LOOP and failure of the SDG will result in loss of the channel since it will not be battery backed. This combination of initiating event and subsequent failures is a very low frequency event. In addition the redundant channel would be available and control room can manually align the system.
One channel of FHB HVAC radiation monitor control • TS 3.3.2 o Same action as above With both channels of the function inoperable, the same action applies.	FHB HVAC trains actuate on high radiation due to loss of power. Actuation of filtration train is the safety function and has no potential as an accident initiator. The function has no effect on CDF or LERF and is not modeled in the PRA.	TS 3.7.8 function is restored to operable status. VRT is 1E power with emergency power from SDG. If not energized from inverter, accident with LOOP and failure of the SDG will result in loss of the channel since it will not be battery backed. This combination of initiating event and subsequent failures is a very low frequency event. In addition, the system actuates to its safety configuration on a loss of power so the battery backup is not significant.

Affected Function • Function-specific TS(s) • Action and Completion Time • Most limiting TS for ALL channels de-energized (both DPs)	Failure Mode and Risk Assessment	
	DP not energized	DP energized from alternate source (VRT)
One train of Component Cooling Water (CCW) Surge Tank Level • TS 3.7.3 o Restore in 7 days or apply CRMP With two trains of the function inoperable, restore in 1 hour or apply the CRMP.	Non-safety portions of the affected CCW train do not isolate on Surge Tank low level. There is no transient or operational impact. The PRA does not credit isolation of non-safety CCW for mitigation of any events.	TS 3.7.3 function is restored to operable status. VRT is 1E power with emergency power from SDG. If not energized from inverter, accident with LOOP, CCW leak, and failure of the SDG will result in loss of the channel since it will not be battery backed. This combination of initiating event and subsequent failures is a very low frequency event and does not necessarily lead to complete loss of the CCW train. There is no effect on CDF or LERF.
One train of Control Room Envelope HVAC (CREHVAC) Makeup Flow Control • TS 3.7.7 o Restore within 7 days or shutdown With two trains of the function inoperable, restore within 72 hours or shutdown.	Control Room Outside Air Makeup Flow damper fails closed.	TS 3.7.7 function is restored to operable status. VRT is 1E power with emergency power from SDG. If not energized from inverter, accident with LOOP and failure of the SDG will result in loss of the channel since it will not be battery backed. This combination of initiating event and subsequent failures is a very low frequency event. In addition the redundant channel would be available.
One train of Fuel Handling Building (FHB) Exhaust Filter Flow Control • TS 3.7.8 o Restore within 7 days or shutdown With two trains of the function inoperable, restore at least one train within 12 hours or shutdown.	FHB Exhaust Filter Flow damper fails closed. FHB ventilation is not modeled in the PRA because it has no effect on CDF or LERF.	TS 3.7.8 function is restored to operable status. VRT is 1E power with emergency power from SDG. If not energized from inverter, accident with LOOP and failure of the SDG will result in loss of the filtration flow control damper for the train since control will not be battery backed. This combination of initiating event and subsequent failures is a very low frequency event. In addition the redundant filter train would be available. FHB exhaust has no effect on CDF or LERF.

Affected Function • Function-specific TS(s) • Action and Completion Time • Most limiting TS for ALL channels de-energized (both DPs)	Failure Mode and Risk Assessment	
	DP not energized	DP energized from alternate source (VRT)
One channel of Containment Hydrogen Monitoring • No TS	Affected Containment Hydrogen Monitor fails. There is no quantifiable effect on CDF or LERF.	Function is restored. VRT is 1E power with emergency power from SDG. Hydrogen monitoring has no effect on CDF or LERF.
Notes to Table: 1. 30-day action with requirement for Special Report, consistent with NUREG-1431, is planned for a separate license amendment request. 2. 7-day shutdown, consistent with NUREG-1431, is planned for a separate license amendment request		

Section 3.2.2 of NEI 06-09, "Risk Managed Technical Specifications Guidelines", states,

> "The risk informed assessment scope of SSCs included in a plant CRM program generally includes the following:
>
> 1. Those SSCs included in the scope of the plant's Level 1 and LERF (or Level 2 if available), internal (and, if available, external) events PRA, and;
> 2. Those SSCs not explicitly modeled in the PRA but whose functions can be directly correlated, with appropriate documentation, to those in 1 above (e.g., actuation instrumentation for PRA modeled function)."

Subsequent to the design change described earlier, there are no functions remaining on the subject DPs that have a direct relation to a function modeled in the PRA.

Based on the requirements in TS 6.8.3.k, "Configuration Risk Management Program", and NEI 06-09, STPNOC determined that the provision for the application of the CRMP to TS 3.8.3.1 ACTION c and d could not be applied for DP001 and DP002. The TS Bases include this restriction. Only DP001 and DP002 are affected by the proposed change. The STP PRA incorporates the other distribution panels and associated inverters such that a RICT can be determined in accordance with TS 6.8.3.k and NEI 06-09.

The preceding table clearly illustrates from both a deterministic and risk perspective the low safety significance of the functions powered from the affected DPs. Application of the existing TS 3.8.3.1 requirements without the provision to apply the CRMP is not commensurate with the safety significance of the equipment powered from the DPs. The TS actions are unnecessarily restrictive.

STPNOC proposes to resolve the condition creating the separate actions previously described to apply to DP001 and DP002 and to revise the time required to energize the panels from their associated inverter connected to its associated DC bus to 30 days.

The 7 days proposed in ACTION e for re-energizing the DP is consistent with the required completion times for the functions powered from the DP. Because of the low risk-significance of the affected functions, the availability of the redundant channel, the fact that when energized from the VRT, the functions are still powered from a diesel-backed 1E source, and the low likelihood of an initiating event and subsequent equipment failures, the 30 day completion time for energizing the DP from its associated inverter connected to its associated DC bus is acceptable for proposed ACTION e for one inoperable DP.

Proposed ACTION f for two inoperable DPs requires at least one of the DPs to be energized within 1 hour. This completion time is unchanged from the current TS requirement and is consistent with the most restrictive completion time for the functions powered from the DPs. ACTION f requires at least one DP to be powered from its associated inverter connected to its associated DC bus within 7 days. The required completion time is acceptable because it is based on the completion times for loss of function for the functions powered from the DPs, the low safety significance of the functions, and the low likelihood of an event that would require the functions. Additionally, it is conservative because the functions are operable when powered from the VRT.

Based on the evaluation above, STPNOC has determined that the proposed change involves no significant change to risk and will result in completion times that are commensurate with the safety significance of the plant configuration.

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

The following criteria generally apply to the functions powered from the subject inverters.

General Design Criteria (GDC) 13, "Instrumentation and Control," of 10 CFR 50, Appendix A, includes a requirement that instrumentation be provided to monitor variables and systems over their anticipated ranges for accident conditions as appropriate to ensure adequate safety.

GDC 19, "Control Room," of 10 CFR 50, Appendix A, includes a requirement that a control room be provided from which actions can be taken to maintain the nuclear power unit in a safe condition under accident conditions, including loss-of-coolant accidents, and that equipment, including the necessary instrumentation, at appropriate locations outside the control room be provided with a design capability for prompt hot shutdown of the reactor.

GDC 64, "Monitoring Radioactivity Releases," of 10 CFR 50, Appendix A, includes a requirement that means be provided for monitoring the reactor containment atmosphere, spaces containing components for recirculation of loss-of-coolant fluid, effluent discharge paths, and plant environs for radioactivity that may be released from postulated accidents.

Regulatory Guide (RG) 1.97, "Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident," Revision 2, describes a method acceptable to the NRC staff for complying with the Commission's regulations to

provide instrumentation to monitor plant variables and systems during and following an accident in a light-water-cooled nuclear power plant.

The referenced requirements of GDC 13, GDC 19, GDC 64, and the guidance of RG 1.97 continue to be met because the proposed changes do not delete or add any post-accident monitoring variables to the Technical Specifications, do not revise the number of instrumentation channels required for any variable, and do not revise the instrumentation ranges for any of the post-accident monitoring variables included in the Technical Specifications.

RG 1.174, "An Approach For Using Probabilistic Risk Assessment In Risk-Informed Decisions On Plant-Specific Changes To The Licensing Basis" and RG 1.177, "An Approach For Plant-Specific, Risk-Informed Decisionmaking: Technical Specifications", describe acceptance criteria for risk-informed changes. Although risk is qualitatively assessed in the technical evaluation, this is not proposed as a risk-informed change in accordance with RG 1.174 or RG 1.177. The DP001/DP002 functions do not affect CDF or LERF and are therefore not modeled in the PRA.

4.2 Significant Hazards Consideration

STP has evaluated whether a significant hazards consideration is involved with the proposed amendments by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Response:

   No. The proposed change does not involve the modification of any plant equipment or affect basic plant operation. The proposed change will have no impact on the design or function of any safety related structures, systems or components.

   Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Response:

   No. The proposed change does not involve any physical alteration of plant equipment and does not change the method by which any safety-related structure, system, or component performs its function or is tested. As such, no new or different types of equipment will be installed, and the basic operation of installed equipment is unchanged. The methods governing plant operation and testing remain consistent with current safety analysis assumptions.

Therefore, the proposed change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

Response:

No. The proposed change does not negate any existing requirement, and does not adversely affect existing plant safety margins or the reliability of the equipment assumed to operate in the safety analysis. As such, there are no changes being made to safety analysis assumptions, safety limits or safety system settings that would adversely affect plant safety as a result of the proposed change.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, STP concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and accordingly, a finding of 'no significant hazards consideration" is justified.

4.3 Conclusions

Based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

5.0 ENVIRONMENTAL CONSIDERATION

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c) (9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement, or environmental assessment need be prepared in connection with the proposed amendment.

6.0 REFERENCES

1. NEI 06-09 Rev. 0, "Risk-Informed Technical Specifications Initiative 4b, Risk-Managed Technical Specifications (RMTS) Guidelines"

ENCLOSURE, ATTACHMENT 1

Technical Specification Page Markups

For information – no changes on this page

3/4.8.3 ONSITE POWER DISTRIBUTION

OPERATING

LIMITING CONDITION FOR OPERATION

3.8.3.1 The following electrical busses shall be energized in the specified manner:

a. Train A A.C. ESF Busses consisting of:
   1) 4160-Volt ESF Bus # E1A (Unit 1), E2A (Unit 2), and
   2) 480-Volt ESF Busses # E1A1 and E1A2 (Unit 1), E2A1 and E2A2 (Unit 2) from respective load center transformers.

b. Train B A.C. ESF Busses consisting of:
   1) 4160-Volt ESF Bus # E1B (Unit 1), E2B (Unit 2), and
   2) 480-Volt ESF Busses # E1B1 and E1B2 (Unit 1), E2B1 and E2B2 (Unit 2) from respective load center transformers.

c. Train C A.C. ESF Busses consisting of:
   1) 4160-Volt ESF Bus # E1C (Unit 1), E2C (Unit 2), and
   2) 480-Volt ESF Busses # E1C1 and E1C2 (Unit 1), E2C1 and E2C2 (Unit 2) from respective load center transformers.

d. 120-Volt A.C. Vital Distribution Panels DP1201 and DP001 energized from their associated inverters connected to D.C. Bus # E1A11* (Unit 1), E2A11* (Unit 2), .

e. 120-Volt A.C. Vital Distribution Panel DP1202 energized from its associated inverter connected to D.C. Bus # E1D11* (Unit 1), E2D11* (Unit 2),

f. 120-Volt A.C. Vital Distribution Panel DP1203 energized from its associated inverter connected to D.C. Bus # E1B11* (Unit 1), E2B11* (Unit 2),

g. 120-Volt A. C. Vital Distribution Panels DP1204 and DP002 energized from their associated inverters connected to D. C. Bus # E1C11* (Unit 1), E2C11* (Unit 2),

h. 125-Volt D. C. Bus E1A11 (Unit 1) E2A11 (Unit 2) energized from Battery Bank E1A11 (Unit 1), E2A11 (Unit 2),

i. 125-Volt D. C. Bus E1D11 (Unit 1) E2D11 (Unit 2) energized from Battery Bank E1D11 (Unit 1), E2D11 (Unit 2),

j. 125-Volt D. C. Bus E1B11 (Unit 1) E2B11 (Unit 2) energized from Battery Bank E1B11 (Unit 1), E2B11 (Unit 2), and

k. 125-Volt D. C. Bus E1C11 (Unit 1) E2C11 (Unit 2) energized from Battery Bank E1C11 (Unit 1), E2C11 (Unit 2).

*The inverter(s) associated with one channel may be disconnected from its D.C. bus for up to 24 hours as necessary, for the purpose of performing an equalizing charge on its associated battery bank provided: (1) its vital distribution panels are energized, and (2) the vital distribution panels associated with the other battery banks are energized from their associated inverters and connected to their associated D.C. busses.

ELECTRICAL POWER SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

a. With one of the required trains of A.C. ESF busses not fully energized, within 8 hours reenergize the train or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With more than one of the required trains of A.C. ESF busses not fully energized, within 1 hour reenergize at least two trains or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

c. With one of the A.C. vital distribution panels DP1201, DP1202, DP1203, or DP1204 either not energized from its associated inverter, or with the inverter not connected to its associated D.C. bus: (1) within 2 hours reenergize the A.C. distribution panel or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; and (2) within 24 hours reenergize the A.C. vital distribution panel from its associated inverter connected to its associated D.C. bus or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

d. With more than one of the A.C. vital distribution panels DP1201, DP1202, DP1203, or DP1204 either not energized from its associated inverter, or with the inverter not connected to its associated D.C. bus: (1) within 1 hour reenergize at least ~~five~~ three of these A.C. distribution panels or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; and (2) within 1 hour reenergize at least ~~five~~ three of these A.C. vital distribution panels from their associated inverter connected to their associated D.C. bus or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

e. With one of the A.C. vital distribution panels DP001 or DP002 either not energized from its associated inverter, or with the inverter not connected to its associated D.C. bus: (1) within 7 days reenergize the A.C. distribution panel, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; and (2) within 30 days reenergize the A.C. vital distribution panel from its associated inverter connected to its associated D.C. bus, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

f. With more than one of the A.C. vital distribution panels DP001 or DP002 either not energized from its associated inverter, or with the inverter not connected to its associated D.C. bus: (1) within 1 hour reenergize at least one of these A.C. distribution panels, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; and (2) within 7 days reenergize at least one of these A.C. vital distribution panels from their associated inverter connected to their associated D.C. bus, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

~~e~~g. With one D.C. bus not energized from its associated battery bank, within 2 hours reenergize the D.C. bus from its associated battery bank or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

~~f~~g. With more than one D.C. bus not energized from its associated battery bank, within 1 hour reenergize at least three D.C. buses from their associated battery banks or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.8.3.1 The specified busses shall be determined energized in the required manner at least once per 7 days by verifying correct breaker alignment and indicated voltage on the busses.

ENCLOSURE, ATTACHMENT 2

Technical Specification Bases Page Markups

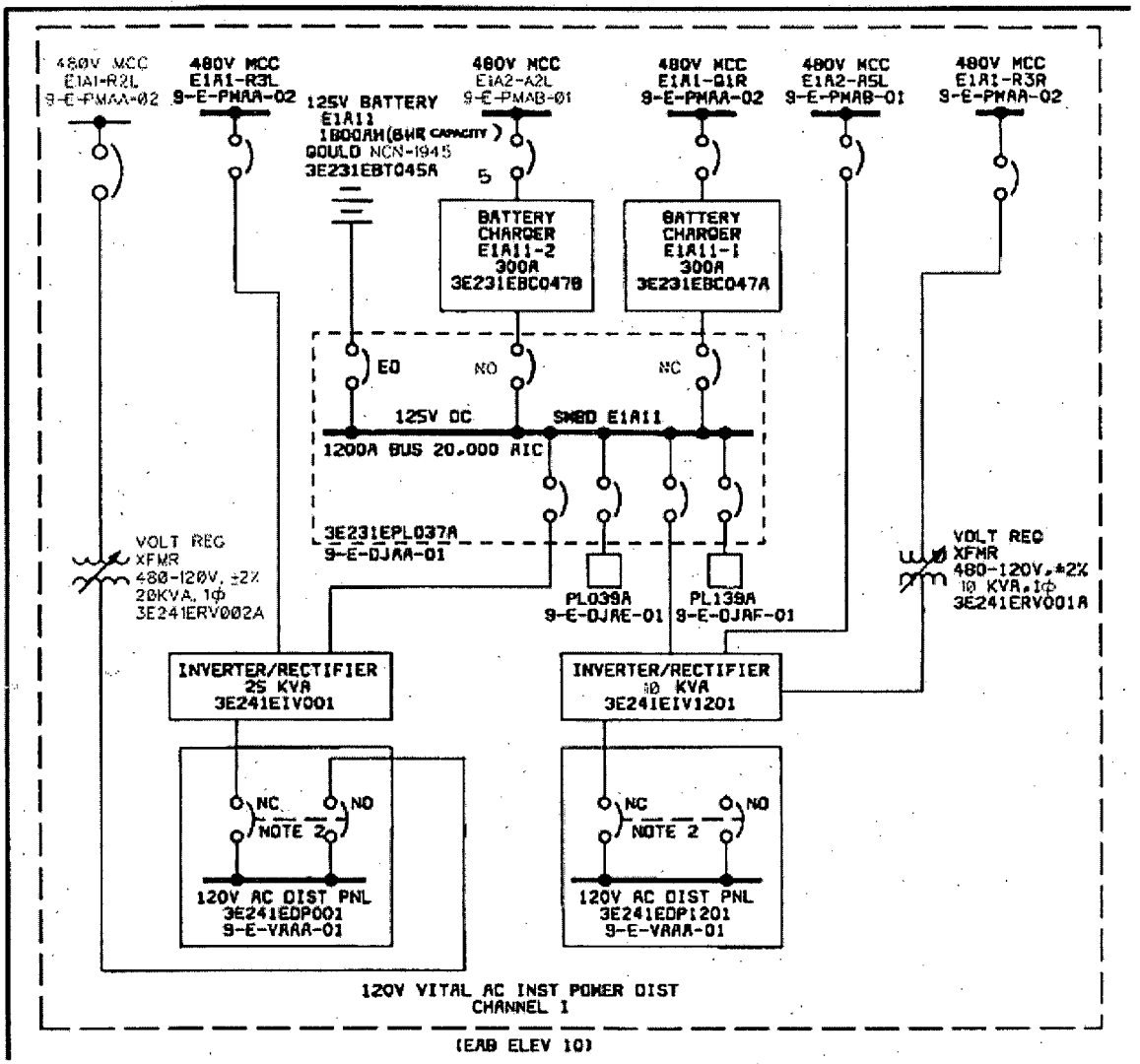
Information Only

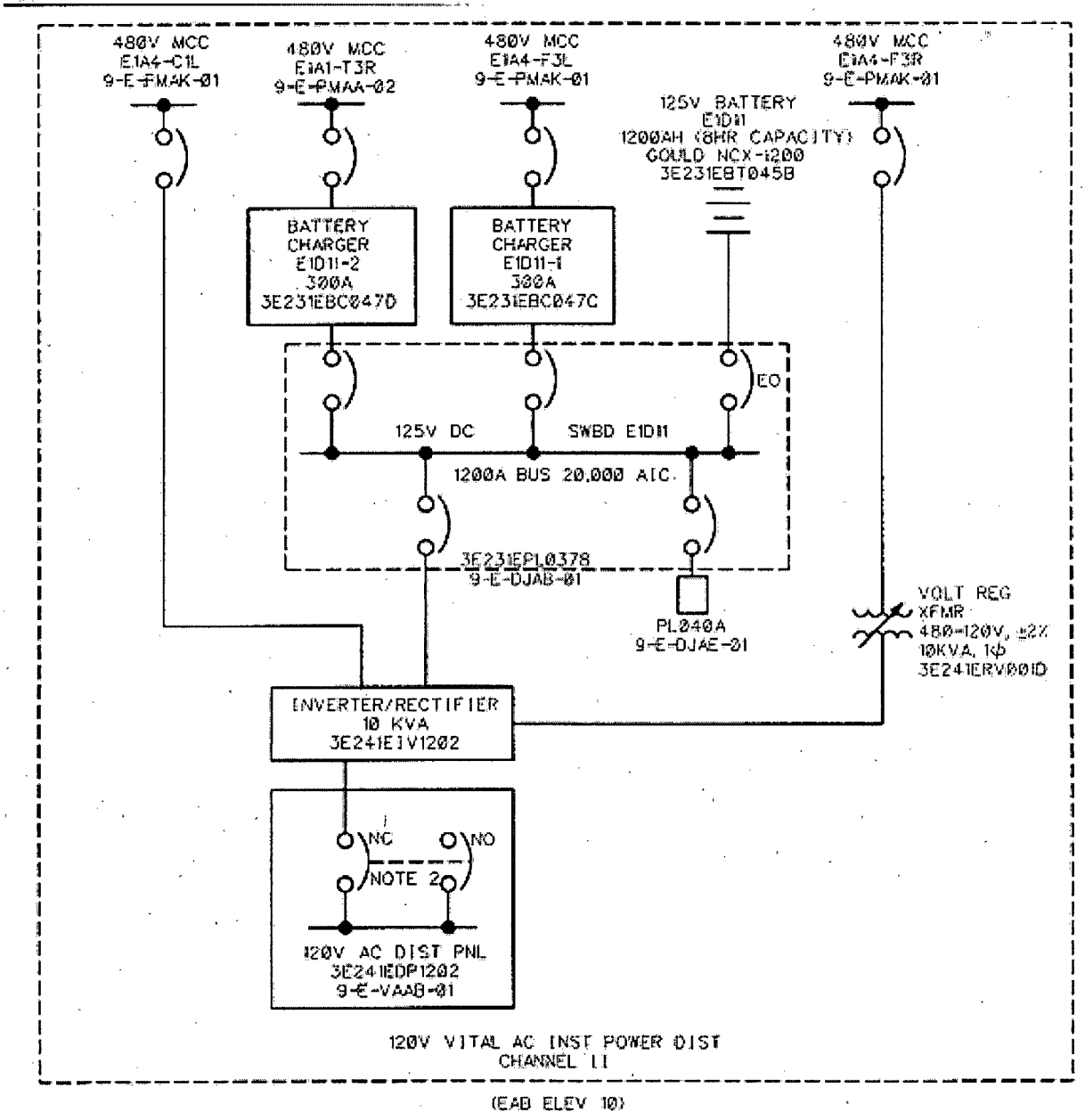
3.8.3.1

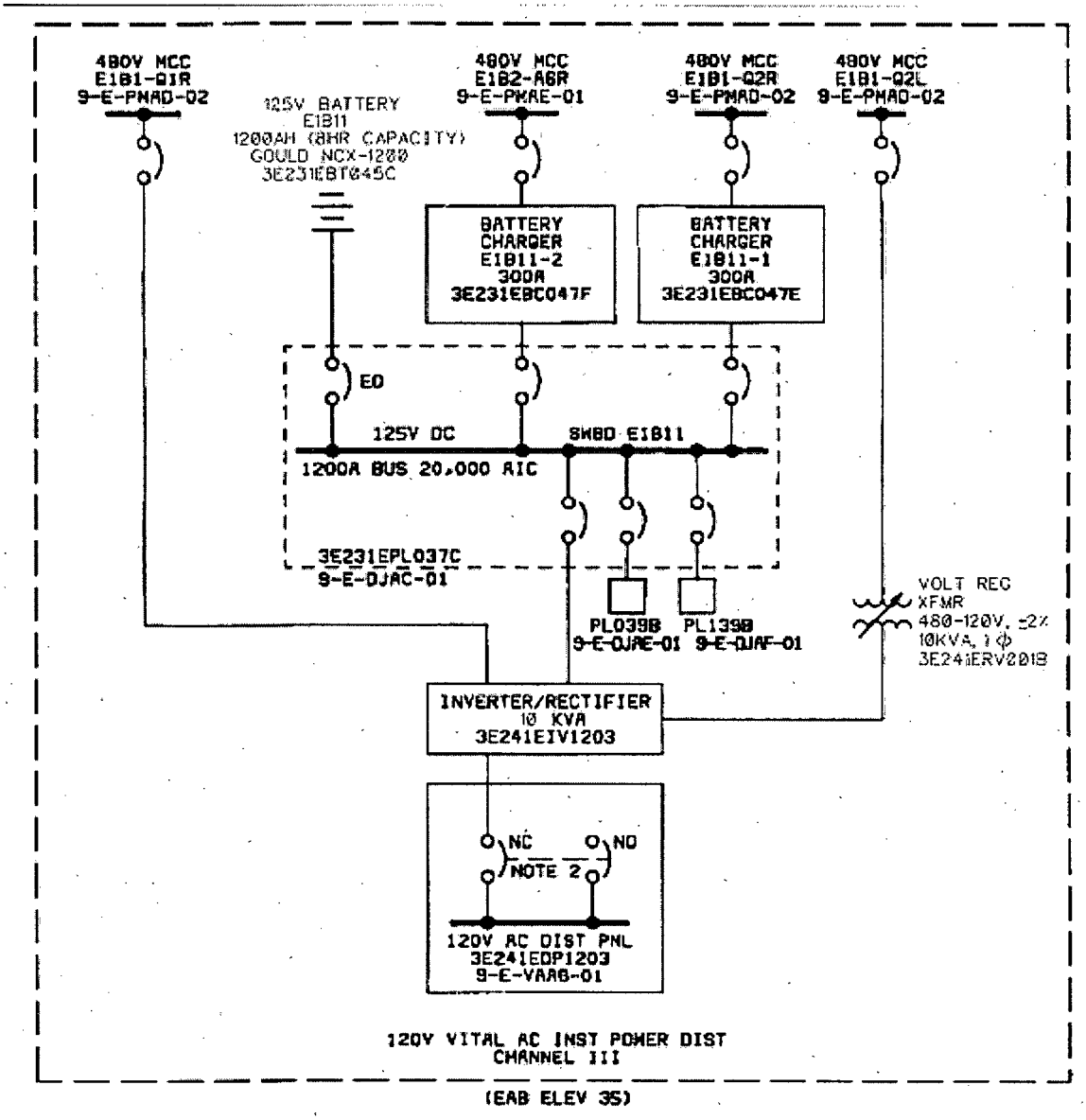
ACTIONs c and d of TS 3.8.3.1 allow the option of calculating risk-informed completion time (RICT) for DP1201, DP1202, DP1203, DP1204 in accordance with the requirements of the CRMP. This option may not be applied for DP001 or DP002 because none of the functions on these distribution panels are modeled in the PRA. TS 3.8.3.1 establishes separate ACTIONs e and f for these distribution panels that provides 30 days to energize the affected panel from its associated inverter connected to their associated DC bus. ~~Although the functions are not risk-significant,~~ Because of the low risk-significance of the affected functions on DP001 and DP002, the fact that, once energized from the voltage regulating transformer, the functions are still powered from a diesel-backed 1E source, and the low likelihood of an initiating event and subsequent equipment failures, the 30 day completion time is acceptable.
~~a RICT cannot be quantified in accordance with the requirements of TS 6.8.3.k.~~

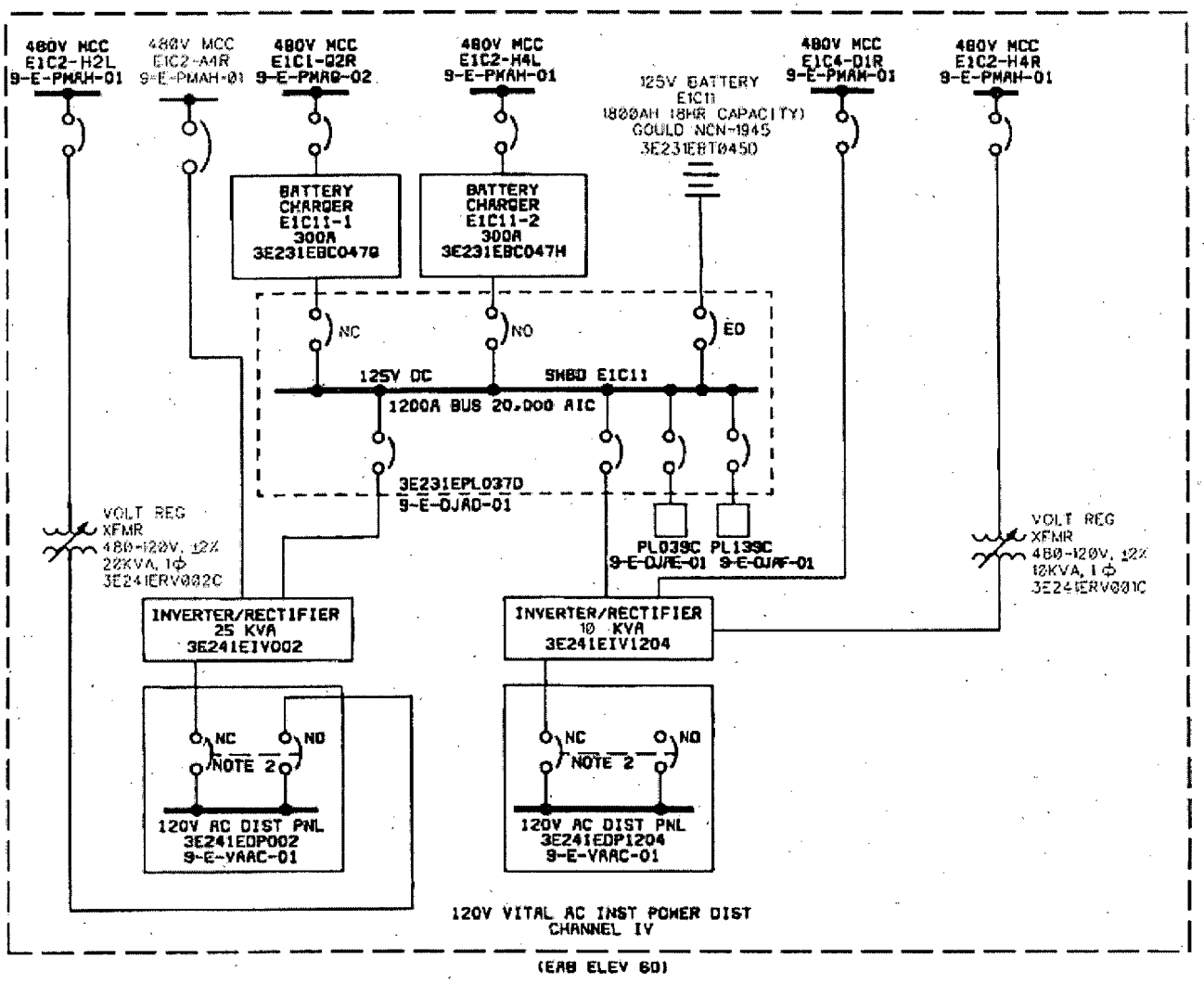
ENCLOSURE, ATTACHMENT 3

Vital AC Distribution Panel Diagrams


480V MCC
E1A1-R2L
9-E-PMAA-02
480V MCC
E1A1-R3L
9-E-PMAA-02
125V BATTERY
E1A11
1800AH(8HR CAPACITY)
GOULD NCN-1945
3E231EBT045A
480V MCC
E1A2-A2L
9-E-PMAB-01
480V MCC
E1A1-Q1R
9-E-PMAA-02
480V MCC
E1A2-R5L
9-E-PMAB-01
480V MCC
E1A1-R3R
9-E-PMAA-02
5
BATTERY CHARGER
E1A11-2
300A
3E231EBC047B
BATTERY CHARGER
E1A11-1
300A
3E231EBC047A
EQ
NO
NC
125V DC
SWBD E1A11
1200A BUS 20,000 AIC
3E231EPL037A
9-E-DJAA-01
VOLT REG
XFMR
480-120V, ±2%
20KVA, 1Φ
3E241ERV002A
PL039A
9-E-DJAE-01
PL139A
9-E-DJAF-01
VOLT REG
XFMR
480-120V, ±2%
10 KVA, 1Φ
3E241ERV001A
INVERTER/RECTIFIER
25 KVA
3E241EIV001
INVERTER/RECTIFIER
10 KVA
3E241EIV1201
NC
NO
NOTE 2
120V AC DIST PNL
3E241EDP001
9-E-VRAA-01
NC
NO
NOTE 2
120V AC DIST PNL
3E241EDP1201
9-E-VRAA-01
120V VITAL AC INST POWER DIST
CHANNEL I
(EAB ELEV 10)


480V MCC
E1A4-C1L
9-E-PMAK-01
480V MCC
E1A1-T3R
9-E-PMAA-02
480V MCC
E1A4-F3L
9-E-PMAK-01
125V BATTERY
E1D11
1200AH (8HR CAPACITY)
GOULD NCX-1200
3E231E8T045B
480V MCC
E1A4-F3R
9-E-PMAK-01
BATTERY
CHARGER
E1D11-2
300A
3E231EBC047D
BATTERY
CHARGER
E1D11-1
300A
3E231EBC047C
EQ
125V DC
SWBD E1D11
1200A BUS 20,000 AIC
3E231EPL0378
9-E-DJAB-01
PL240A
9-E-DJAE-01
VOLT REG
XFMR
480-120V, ±2%
10KVA, 1φ
3E241ERV001D
INVERTER/RECTIFIER
10 KVA
3E241E1V1202
NC
NO
NOTE 2
120V AC DIST PNL
3E241EDP1202
9-E-VAAB-01
120V VITAL AC INST POWER DIST
CHANNEL 11
(EAB ELEV 10)


480V MCC
E1B1-Q1R
9-E-PMAD-02
125V BATTERY
E1B11
1200AH (8HR CAPACITY)
GOULD NCX-1200
3E231EBT045C
480V MCC
E1B2-A6R
9-E-PKAE-01
480V MCC
E1B1-Q2R
9-E-PMAD-02
480V MCC
E1B1-Q2L
9-E-PMAD-02
BATTERY
CHARGER
E1B11-2
300A
3E231EBC047F
BATTERY
CHARGER
E1B11-1
300A
3E231EBC047E
ED
125V DC
SWBD E1B11
1200A BUS 20,000 AIC
3E231EPL037C
9-E-DJAC-01
PL039B
9-E-DJAE-01
PL139B
9-E-DJAF-01
VOLT REG
XFMR
480-120V, ±2%
10KVA, 1 ϕ
3E241ERV201B
INVERTER/RECTIFIER
10 KVA
3E241EIV1203
NC
NO
NOTE 2
120V AC DIST PNL
3E241EDP1203
9-E-VAAB-01
120V VITAL AC INST POWER DIST
CHANNEL III
(EAB ELEV 35)


480V MCC
E1C2-H2L
9-E-PMAH-01
480V MCC
E1C2-A4R
9-E-PMAH-01
480V MCC
E1C1-G2R
9-E-PMAG-02
480V MCC
E1C2-H4L
9-E-PMAH-01
125V BATTERY
E1C11
1800AH 18HR CAPACITY)
GOULD NCN-1945
3E231EBT0450
480V MCC
E1C4-D1R
9-E-PMAH-01
480V MCC
E1C2-H4R
9-E-PMAH-01
BATTERY
CHARGER
E1C11-1
300A
3E231EBC047G
BATTERY
CHARGER
E1C11-2
300A
3E231EBC047H
NC
NO
ED
125V DC
SWBD E1C11
1200A BUS 20,000 AIC
3E231EPL037D
9-E-DJAD-01
PL039C PL139C
9-E-DJAE-01 9-E-DJAF-01
VOLT REG
XFMR
480-120V, 12%
22KVA, 1Φ
3E241ERV002C
VOLT REG
XFMR
480-120V, 12%
12KVA, 1Φ
3E241ERV001C
INVERTER/RECTIFIER
25 KVA
3E241EIV002
INVERTER/RECTIFIER
10 KVA
3E241EIV1204
NC
NO
NOTE 2
120V AC DIST PNL
3E241EDP002
9-E-VAAC-01
NC
NO
NOTE 2
120V AC DIST PNL
3E241EDP1204
9-E-VAAC-01
120V VITAL AC INST POWER DIST
CHANNEL IV
(EAB ELEV 60)