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U-603415
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Docket No. 50-461

10 CFR 50.90

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Washington, D.C. 20555

Subject: Clinton Power Station Proposed Amendment of Facility Operating License No. NPF-62 Related to the Static VAR Compensator (SVC) Protection Systems (LA-00-012)

Reference: Letter U-603414, "Request for Enforcement Discretion Regarding Technical Specification Limiting Condition for Operation Related to the Static VAR Compensator (SVC) Protection Systems," from M. T. Coyle to the NRC dated September 18, 2000.

Dear Sir or Madam:

Pursuant to 10CFR50.91(a)(6), AmerGen Energy Company, LLC (AmerGen) hereby applies for amendment of Facility Operating License No. NPF-62, Appendix A – Technical Specifications (TS), for Clinton Power Station (CPS) on an exigent basis. This amendment request is a result of enforcement discretion exercised by the Nuclear Regulatory Commission (NRC) on September 15, 2000, regarding CPS TS 3.8.11, "Static VAR Compensator (SVC) Protection Systems." As committed to during a conference call on September 15, 2000, a followup written request for Notice of Enforcement Discretion (NOED) was submitted on September 18, 2000 (Reference). This letter is submitted pursuant to AmerGen's further commitment to provide, on or by September 20, 2000, a License Amendment application permanently rectifying the situation that required the NOED.

This application for amendment and the requested enforcement discretion are the result of the TS compliance issue that was identified during a planned outage of the Emergency Reserve Auxiliary Transformer (ERAT) and its associated SVC. Difficulties experienced during the planned functional testing of the redundant SVC protection subsystems for the ERAT SVC necessitated restoring the SVC to service with one of the protection subsystems inoperable. Although Required Action A.1 of TS 3.8.11 permits one of the redundant protection subsystems to be inoperable for the 30 days (due to the low risk significance for such a condition), requirements of TS LCO 3.0.4 prevent placing an SVC into service with one subsystem inoperable. Enforcement discretion was requested to apply a

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"3.0.4 exception" to Required Action A.1 of TS 3.8.11 to permit returning the SVC to service under the provisions of Required Action A.1 (i.e., with one protection subsystem inoperable). The license amendment proposed herein would permanently incorporate a "3.0.4 exception" into Required Action A.1 of TS 3.8.11.

In accordance with 10CFR50.91(a)(6)(vi), a licensee must state whether the exigency could have been avoided or whether or not the licensee has exerted its best efforts to submit a timely application for an amendment. Difficulties were experienced during functional testing of the SVC pursuant to TS Surveillance Requirement (SR) 3.8.11.2. The reason for these difficulties is pending the results of the root cause investigation. These difficulties resulted in a request for a NOED and were not anticipated due, in part, to the fact that the testing performed during initial startup testing of the SVC Protection Systems was performed satisfactorily and was expected to be successful during SR 3.8.11.2 testing. The nature of the circumstances that resulted in the NOED are described in Letter U-603414, dated September 18, 2000. As a result, the need for a license amendment was determined to be unavoidable and not created by a failure to make a timely application for a license amendment. As the current NOED expires on October 15, 2000, and as we are requesting this change on an exigent basis, AmerGen respectfully requests approval of this amendment by October 15, 2000.

Attachment 2 to this letter contains the details and information required to support this request. Attachment 2 includes a discussion as to why this request does not involve a significant hazards consideration and does not involve adverse consequences to the environment. A mark up of the proposed change to TS 3.8.11 is included in Attachment 3. A mark up of the Technical Specification Bases is included for information in Attachment 4. In addition, an affidavit supporting the facts set forth in this letter and its attachments is provided as Attachment 1.

Clinton Power Station's Facility Review Group and the AmerGen Nuclear Review Board have reviewed this proposed amendment.

Sincerely yours,

M. T. Coyle
Vice President

JLP\blf

Attachments

cc: NRC Clinton Licensing Project Manager
NRC Regional Administrator
NRC Resident Office, V-690
Illinois Department of Nuclear Safety

AFFIRMATION

Michael T. Coyle, being first duly sworn, deposes and says: That he is Vice President for Clinton Power Station; that this request for amendment to Facility Operating License NPF-62 has been prepared under his supervision and direction; that he knows the contents thereof; and that the letter and the statements made and the facts contained therein are true and correct to the best of his knowledge and belief.

Date: This 20th day of September, 2000.

Signed: M.T. Coyle
M. T. Coyle
Vice President

STATE OF ILLINOIS
DeWitt COUNTY } SS.

Subscribed and sworn to before me this 20th day of September, 2000.

" OFFICIAL SEAL "
CAROL E. FITZGERALD
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES 12/2/2001

Carol E. Fitzgerald
(Notary Public)

License Amendment Request (LA-00-012) Regarding
Technical Specification Limiting Condition for Operation 3.8.11
Related to the Static VAR Compensator (SVC) Protection Systems

BACKGROUND

Each offsite power source for CPS is equipped with a Static VAR Compensator (SVC) protection system. The 345-kV transmission system is connected to the Clinton Power Station (CPS) auxiliary power system via the reserve auxiliary transformer (RAT) which is supported by the RAT SVC, and the 138-kV system is connected to CPS via the emergency reserve auxiliary transformer (ERAT) which is supported by the ERAT SVC. (The SVCs operate on the secondary side of these transformers to provide voltage support of the 4160-V level.) The function of the SVC is to provide dynamic reactive power support by automatically responding to changes in voltage to ensure that adequate onsite voltage remains available to safety-related loads.

To protect the onsite power distribution system from malfunctions of the SVC, each SVC is provided with a redundant protection scheme. Each of the subsystems of this protection scheme initiates a trip of the two in-series SVC output breakers for the associated SVC in the event of an abnormal overvoltage, undervoltage, phase unbalance, harmonic, or overcurrent condition. LCO 3.8.11 requires that an SVC Protection System consisting of two redundant protection subsystems be Operable for each inservice SVC during SVC operation. When one subsystem of an SVC Protection System becomes inoperable, Required Action A.1 requires that the SVC protection subsystem be restored to Operable status within 30 days. If this Completion Time is not met, Required Action C.1 requires removing the SVC from service by opening the SVC output breaker within one hour. Completion of Required Action C.1 thus causes the Applicability of LCO 3.8.11 (i.e., "During SVC operation") to be exited.

LCO 3.0.4 states, "when an LCO is not met, entry into a MODE or other specified condition in the Applicability shall not be made except when the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time." With an SVC removed from service, and with one of the required SVC protection subsystems inoperable, LCO 3.0.4 prohibits placing the SVC into service. Placing the SVC back into service constitutes re-entry into a condition specified in the Applicability of the LCO, and since the ACTIONS of TS 3.8.11 do not permit continued operation for an unlimited period of time in this condition, re-entry is prohibited by LCO 3.0.4. (The ACTIONS of TS 3.8.11 do not permit continued operation in the condition specified in the Applicability for an unlimited period of time because Required Action C.1 requires removing the SVC from service within one hour if one subsystem is not restored to an Operable status in 30 days.)

To support long-term assurance of adequate onsite voltage, CPS procedurally requires the associated offsite source to be declared inoperable whenever its associated SVC is not in service. SVC maintenance or testing is thus usually performed when the associated RAT or ERAT is removed from service. Should difficulties in restoration (from maintenance activities, for example) be experienced for either protective subsystem for an SVC, it may

be necessary to restore the SVC to service with only one protective subsystem Operable. However, the requirements of LCO 3.0.4 prevent placing an SVC into service due to the inability to fully satisfy the requirements of LCO 3.8.11 in the stated condition of the Applicability. This restriction may prevent restoring the RAT or ERAT to Operable status within the Completion Time limits of LCO 3.8.1, "AC Sources – Operating," if the RAT or ERAT is removed from service during its Applicable Modes.

SVC operation for a limited period of time with only one protection subsystem Operable is acceptable on the basis that the subsystems are fully redundant such that one subsystem provides sufficient protection capability for plant loads in the event of a malfunction of the associated SVC. Further, the risk associated with this operating condition would be equivalent to that allowed under TS 3.8.11 Required Action A.1. At the same time, continued SVC operation is important for ensuring adequate voltage to plant loads during normal plant operation as well as in the event of an accident. Thus, there is a safety incentive to restoring the SVC to service as soon as possible, even with only one protection subsystem Operable. To support this, AmerGen is requesting the issuance of a license amendment to permanently resolve this LCO 3.0.4 compliance issue.

DESCRIPTION OF PROPOSED CHANGE

AmerGen is requesting that TS 3.8.11 be modified to include an LCO 3.0.4 exception to Required Action A.1, stating that "LCO 3.0.4 is not applicable." This exception would allow an SVC to be placed back into service even with Required Action A.1 associated with TS 3.8.11 being in effect. This exception would preclude the immediate noncompliance with LCO 3.0.4.

JUSTIFICATION FOR PROPOSED CHANGE

This application for amendment of the CPS Operating License will preclude any future recurrence of the identified LCO 3.0.4 compliance problem associated with TS 3.8.11. This permanent change to TS 3.8.11 inserts a "3.0.4 exception" into Condition A, Required Action A.1. Although there is some risk associated with placing the SVC into service with less than two fully redundant protection subsystems Operable, the overall plant risk levels are considered to be lower with an SVC in service (to maintain the offsite source Operable), than with continued plant operation with no SVC in service.

The risk associated with a "3.0.4 exception", i.e., entry into a plant condition with less than two fully redundant SVC protection subsystems is also low compared to the risk of performing an unnecessary plant shutdown resulting from an offsite circuit being inoperable without the SVC in service. These risk levels are consistent with the risk levels previously evaluated in establishing the 30-day Completion Time of LCO 3.8.11 Required Action A.1. The basis for the Completion Times and the associated plant risk considerations were presented in the License Amendment application letter (U-602972) dated May 4, 1998, and subsequent letter (U-603084) dated September 23, 1998, associated with Facility Operating License – NPF-62 Amendment 117 dated October 9, 1998.

A risk evaluation of SVC operation with only one Operable protective subsystem while supporting the offsite electrical circuit was performed. The results of the evaluation showed no appreciable change in core damage frequency (CDF) due to operation of the SVC with one protective subsystem vice two protective subsystems. Regardless of whether one or two SVC protective subsystems were in operation, the risk evaluation yielded a CDF of 1.842E-05 /yr. These CDF results are reasonable based on: 1) a required loss of the RAT (or ERAT) must first occur causing safety related loads to be transferred to the ERAT (or RAT); 2) a fault must occur on the SVC such that unacceptable operation is induced; 3) the remaining SVC protective subsystem must fail such that the SVC induced fault is transmitted to the 4160 V bus; and 4) the equipment supplied by the 4160 V bus must fail as a result of the induced SVC failure mode.

Based on the above, placing an SVC into service with only one Operable SVC protection subsystem will have a minimal effect on plant safety. Therefore, this proposed change will have a minimal effect on the frequency of core damage risk.

BASIS FOR NO SIGNIFICANT HAZARDS CONSIDERATION

In accordance with 10 CFR 50.92, a proposed change to the operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed change would not (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 than previously evaluated, or (3) involve a significant reduction in a margin of safety. The proposed change, i.e., the request for enforcement discretion to revise the requirements of TS 3.8.11, is evaluated against each of these criteria as follows:

(1) The proposed change does not involve a significant increase in the probability or consequences of any accident previously evaluated.

The accident analyses assume that the offsite AC electrical power sources have sufficient capacity, capability, redundancy and reliability to ensure the availability of necessary power to safety-related systems so that the fuel, reactor coolant system, and containment design limits are not exceeded and that the postulated transients and accidents are effectively mitigated such that offsite radiation exposure criteria are not exceeded. The SVCs provide voltage support, when required, for the associated offsite AC power circuits to the safety-related buses and equipment supplied by those circuits. The SVC protection systems described in LCO 3.8.11 protect safety-related equipment from potential SVC failure modes that could damage or degrade Class 1E electrical equipment.

The proposed request to add an LCO 3.0.4 exception to TS 3.8.11 Required Action A.1 would result in the ability to place an SVC back into service with only one protection subsystem Operable for up to 30 days. This request would allow an SVC to provide voltage support for onsite loads, as necessary, and thus assist in ensuring an adequate power source to safety-related electrical equipment. Restoring an SVC to service provides

automatic voltage support, when required, rather than relying on manual means to monitor offsite grid conditions to ensure adequate onsite power voltage. This request continues to limit the duration of inoperability of the SVC protective subsystem to 30 days as required by LCO 3.8.11 Required Action A.1.

SVC failure, with or without an Operable protective subsystem, is a plausible initiator for those accidents evaluated in the Updated Safety Analysis Report (USAR) Chapters 6 and 15 that result from an interruption of an offsite power source; for example, a loss of RHR during shutdown conditions when supplied by an offsite power circuit. However, no facility design changes are associated with the SVCs or their associated offsite circuits that would cause a change in component failure probability; hence reliability of the SVCs is maintained at their previous levels. Therefore, no change in plausible initiation mechanisms or frequencies has occurred. In addition, following approval of this request, the remaining protective subsystem would continue to be required Operable. When combined with the proposed 30-day limitation on the proposed request, the assumed conditions and failure probabilities used to derive the basis for the Required Action and associated Completion Times for Conditions B and C of TS 3.8.11 are preserved. Thus, no significant increase in the probability of any accident previously evaluated results from this change.

For those accidents that rely on the availability of the offsite power circuit for successful mitigation, no change has been introduced to alter the assumed failure modes or effects. One SVC protective subsystem will continue to provide a level of protection consistent with the analyses provided for the basis for the Required Actions and associated Completion Times for Conditions B and C of TS 3.8.11. Thus, the assumed failure of the SVC would not alter the assumptions of the accident analyses nor consequences resulting from the accident analyses. Therefore, no significant increase in consequences of any accident evaluated previously results from this change.

Based on the above, the proposed amendment does not involve a significant increase in the probability or consequences of any accident previously evaluated.

(2) The proposed change would not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed change to the SVC protection subsystem minimum requirements will not introduce any new or different accident. No changes have been introduced into the design or operation of the SVC or the associated offsite circuit that would result in a new or different failure mode or effect. No failures previously considered incredible would be made credible as a result of allowing an LCO 3.0.4 exception to place an SVC

into service with only one protective subsystem Operable. Therefore, sufficient protection against SVC malfunctions will continue to exist for the duration of this change and, thus, the proposed change does not create the possibility of a new or different kind of accident than previously evaluated.

(3) The proposed change will not involve a significant reduction in the margin of safety.

Although the minimum requirements for an SVC Protection Subsystem are proposed to be changed, the SVCs will continue to be protected from all of its postulated failures. Because of the reliable design of the protective subsystems and the demonstrated reliability and predictable behavior of the SVC during its previous service, the redundant protective subsystem provides a negligible increase in the margin of safety associated with the overall protection system. Thus, the request to allow an LCO 3.0.4 exception to place an SVC into service with only one protective subsystem Operable does not involve a significant reduction in the margin of safety. Further, the benefit of having the SVC in service to support offsite circuit Operability, as needed, provides a greater margin of safety than the margin lost due to the reduction in protective system redundancy.

Based on the above, it is concluded that the proposed change does not involve a significant reduction in a margin of safety.

ENVIRONMENTAL IMPACT CONSIDERATION

AmerGen has evaluated this requested enforcement discretion against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21. AmerGen has determined that this requested action meets the criteria for a categorical exclusion set forth in 10 CFR 51.22(c)(9) and as such, has determined that no irreversible consequences exist in accordance with 10 CFR 50.92(b). This determination is based on the fact that this change is being proposed to a license issued pursuant to 10 CFR 50 that reflects a requirement with respect to the use of a facility component located within the restricted area, as defined in 10 CFR 20, and the action meets the following specific criteria:

A. The proposed action involves no significant hazards consideration. As discussed previously in this submittal, this proposed action does not involve any significant hazards consideration.

B. There is no significant change in the types or significant increase in the amounts of any effluent that may be released offsite. The proposed action does not affect the generation of any radioactive effluent. The proposed action would allow an exception to LCO 3.0.4 for placing an SVC protective subsystem into service with one of its two required subsystems inoperable. The resulting overall increase in risk during the additional 30-day period is minimal and it is expected that plant equipment would

operate as required in the event of an accident to minimize the potential for any leakage of radioactive effluents.

C. There is no significant increase in individual or cumulative occupational radiation exposure. The proposed action will not change the level of controls or methodology used for processing of radioactive effluents or handling of solid radioactive waste, nor will the proposed action result in any change in the normal radiation levels within the plant. Therefore, there will be no increase in individual or cumulative occupational radiation exposure resulting from this change.

Marked-Up Pages of the CPS Technical Specifications

3.8 ELECTRICAL POWER SYSTEMS

3.8.11 Static VAR Compensator (SVC) Protection Systems

LCO 3.8.11 An SVC Protection System consisting of two redundant protection subsystems shall be OPERABLE for each inservice SVC.

---- NOTE ----
LCO 3.0.4 is not applicable.

APPLICABILITY: During SVC operation

ACTIONS

----------NOTE----------
Separate Condition entry is allowed for each SVC Protection System.

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One subsystem of an SVC Protection System inoperable.	A.1	Restore SVC protection subsystem to OPERABLE status.	30 days
B. Both subsystems of an SVC Protection System inoperable.	B.1	Restore one SVC protection subsystem to OPERABLE status.	24 hours
C. Required Action and associated Completion Time not met.	C.1	Open SVC output breaker(s) to remove SVC from service.	1 hour

NO CHANGES TO THIS PAGE.

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.11.1	For each required SVC Protection System, perform a local, visual check of the SVC system control and status panel to confirm satisfactory operation.	24 hours
SR 3.8.11.2	Perform a system functional test of each SVC protection subsystem, including breaker actuation.	18 months

Marked-Up Pages of the CPS Technical Specification Bases

B 3.8 ELECTRICAL POWER SYSTEMS

B 3.8.11 Static Var Compensator (SVC) Protection Systems

BASES

BACKGROUND

As described in the Bases for LCO 3.8.1, "AC Sources-Operating," each Engineered Safety Feature (ESF) electrical bus within the Class 1E AC Electrical Power Distribution system has two separate and independent offsite sources of power. From the plant switchyard, a 345-kV circuit provides AC power to each 4.16-kV ESF bus via the reserve auxiliary transformer (RAT). In addition, an electrically and physically independent 138-kV offsite power source provides AC power to each 4.16-kV ESF bus via the emergency reserve auxiliary transformer (ERAT). For each of these circuits, a permanently installed static VAR compensator (SVC) is provided which can be connected to the secondary side of the associated auxiliary power transformer (RAT or ERAT) via two (in-series) circuit breakers. The ERAT SVC and RAT SVC provide steady state, dynamic and transient voltage support to ensure that the Class 1E loads will operate as required during anticipated or postulated events. However, as noted in the Bases for LCO 3.8.1, SVC support of the offsite power sources may not be required at all times, depending on prevailing grid conditions relative to the requirements of the facility.

The internal control system for each SVC includes control and protective functions. However, backup protection is provided by a fully redundant and independent protection system, consisting of two redundant subsystems for each SVC, for fail safe performance of the overall SVC system. The redundant protection subsystems are powered from independent DC supplies. Each subsystem activates separate and independent relays, which in turn will automatically open the two main SVC circuit breakers to automatically disconnect the SVC from the 4.16-kV circuit in response to various SVC failure conditions. The SVC main circuit breakers are redundant for increased protection against breaker failure.

APPLICABLE SAFETY ANALYSES

As noted in the Bases for LCO 3.8.1, "AC Sources-Operating," the initial conditions of DBA and transient analyses in the USAR assume ESF systems are OPERABLE. The AC electrical power sources, including the offsite electrical power

(continued)

BASES

APPLICABLE SAFETY ANALYSES (continued)

sources, are designed to provide sufficient capacity, capability, redundancy and reliability to ensure the availability of necessary power to ESF systems so that the fuel, reactor coolant system, and containment design limits are not exceeded. The RAT and ERAT SVCs provide voltage support, when required, from the associated offsite source circuits to the ESF busses and equipment supplied by those circuits. At the same time, failure and risk analyses performed for the SVCs demonstrate that a protection system for each SVC is necessary to protect ESF equipment from potential SVC failure modes that could damage or degrade the Class 1E equipment. OPERABILITY of the SVC Protection Systems is thus consistent with minimizing the potential for SVC failures to damage or degrade required ESF equipment.

Probabilistic risk assessment has shown the SVC Protection Systems to be important for the protection of required ESF systems and equipment. Therefore, the SVC Protection Systems satisfy Criterion 4 of the NRC Policy Statement.

LCO

Both redundant protection subsystems of a required SVC protection system are required to be OPERABLE to ensure no single failure will preclude protection on a valid signal. Total SVC Protection System failure introduces the possibility of ESF equipment failure or degradation of ESF equipment connected or capable of being automatically connected to the busses supported by the SVC(s).

An SVC Protection System is considered OPERABLE when each of both SVC protection subsystems is capable of automatically opening the associated SVC main circuit breakers in response to postulated SVC failures that could potentially degrade or damage ESF equipment. OPERABILITY of an SVC protection subsystem exists when it is energized and all essential components are OPERABLE, including the associated relays and sensors (e.g., current transformers and potential transformers).

(continued)

BASES (continued)

APPLICABILITY

An SVC Protection System must be OPERABLE whenever its associated SVC is in operation, i.e., whenever the SVC's associated offsite circuit is energized with the SVC connected. Although the plant ESF busses are normally aligned together and to either the RAT or ERAT, an SVC Protection System must be OPERABLE if its associated SVC is connected to the associated auxiliary transformer (RAT or ERAT); the transformer is energized by the offsite network; and the transformer is supplying power to at least one ESF bus, or automatic transfer capability to that transformer exists such that it could supply power to at least one ESF bus.

The requirements for the offsite electrical power sources are addressed in LCO 3.8.1, "AC Sources-Operating," and LCO 3.8.2, "AC Sources-Shutdown."

ACTIONS

A.1

With one SVC protection subsystem of a required SVC Protection System inoperable, the inoperable subsystem must be restored to OPERABLE status within 30 days. With the SVC Protection System in this condition, the remaining subsystem is adequate to provide the protection function. However, the overall reliability of the SVC Protection System is reduced because a failure of the OPERABLE subsystem would result in a loss of the SVC failure protection function. The 30-day Completion Time is based on the low probability of an SVC failure occurring during this time period, and the fact that the remaining subsystem can provide the required protection function. INSERT attached

B.1

If both SVC protection subsystems of a required SVC Protection System are inoperable, the backup protection system designed for the SVC is unavailable to provide its protection function. Though not all failure modes of the SVC would necessarily be unprotected or potentially damaging to ESF equipment with the required protection system unavailable, there is a significant increase in calculated risk based on conservative failure assumptions for the SVCs. Thus, at least one subsystem must be restored to OPERABLE

(continued)

BASES

ACTIONS

B.1 (continued)

status within 24 hours. The Completion Time of 24 hours is reasonable, taking into account the low probability of an SVC failure occurring in this time period and the realistic potential for an SVC failure to adversely affect plant equipment.

C.1

If the required SVC protection subsystems cannot be restored to OPERABLE status within the required Completion Time, the SVC must be placed in a configuration for which the SVC Protection System LCO does not apply. This is accomplished by disconnecting the associated SVC from the plant auxiliary power system by opening (at least one of) the SVC main circuit breakers. The Completion Time of one hour allows for an orderly disconnection of the SVC, including evaluation of the resultant impact on required voltage for the onsite ESF busses (i.e., for compliance with LCO 3.8.1, "AC Sources-Operating," or LCO 3.8.2, "AC Sources-Shutdown").

SURVEILLANCE REQUIREMENTS

SR 3.8.11.1

The SVC local control panel is checked to confirm satisfactory operation of the SVC Protection System(s). This includes verifying that no warning or trouble lights that could be indicative of SVC Protection System degradation are present, and checking the overall condition and/or status of relays to qualitatively confirm satisfactory operation of the SVC and SVC Protection System.

The 24-hour Frequency is based on manufacturer's recommendations.

SR 3.8.11.2

A system functional test of each SVC Protection System is performed to ensure that each SVC protection subsystem will actuate to automatically open the associated SVC's main circuit breakers in response to signals associated with SVC failure modes that could potentially damage or degrade plant

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.8.11.2 (continued)

equipment. System functional testing should thus include satisfactory operation of the associated relays and testing of the sensors for which failure modes would be undetected. As a minimum, SVC protection subsystem actuation capability should be verified for response to signals, actual or simulated, corresponding to the following potential SVC failure modes or conditions:

(1) Overvoltage
(2) Undervoltage
(3) Phase Unbalance
(4) Harmonics
(5) Overcurrent

The 18-month Frequency is based on manufacturer's recommendations.

REFERENCES

1. 10CFR50, Appendix A, GDC 17.

2. USAR, Chapter 8.

Insert to TS Bases 3.8.11, Action A.1

Required Action A.1 is modified by a note that states that the provisions of LCO 3.0.4 are not applicable. This exception allows entry into MODES or other specified conditions in the Applicability when one SVC protection subsystem is inoperable. This exception is acceptable due to the redundancy of the protection systems and the low probability of an SVC failure (fault) that could adversely affect plant equipment.