ATTACHMENT 1

SERIAL: NLS-84-333

BRUNSWICK STEAM ELECTRIC PLANT
PROPOSED TECHNICAL SPECIFICATION PAGES - UNIT 1

(CP&L SERIAL NO: 84TSB31)

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Page	Description of Change	Basis for Change
AIII	Revised to reflect addition of "DC Distribution - Operation of One or Both Units" section and pagination.	Administrative in nature.
3/4 8	-8 Item 3.8.2.3 - Reformatted to more closely conform with the GE/BWR-4 STS.	Administrative in nature.
3/4 8	Action a - Revised to reflect DC system design at Brunswick. "With one battery, or one charger, or one battery and its associated charger" changed to "with one or more batteries and/or its associated charger."	The DC system design at BSEP consists of four 125 Vdc batteries and chargers per unit. Each of the 125 Vdc batteries and its associated charger provide 125 Vdc control and instrumentation power for various safety-related and BOP loads. Two of the batteries and their associated chargers are connected to form the Division I 250 Vdc power supply. The other two form the Division II 250 Vdc power supply. Therefore, an inoperable battery and/or an inoperable charger renders the 250V division inoperable. BSEP has been analyzed for the loss of one DC division. Results from this analysis reflect that sufficient ECCS equipment is maintained to mitigate the postulated events. Because the system has been analyzed for a complete loss of one division, the seven-day LCO is applicable regardless of the number of inoperable batteries and/or chargers in the one division.
3/4 8	-8 Action b - Revised to require an orderly plant shutdown upon loss of both DC power divisions.	Loss of more than one division of DC power per unit could result in less than the minimum ECCS requirements. Therefore, an orderly shutdown of the unit is warranted with both DC divisions declared inoperable. When one or more batteries and/or its associated charger in both divisions is declared inoperable, the action statement requiring hot shutdown is applicable.
3/4 8	-8 Action c - Deleted.	With the rewording of LCO 3.8.2.3 Action Statement a, the current Action Statement c is no longer required. The two-hour LCO that was specified for the loss of one DC division, was adopted from the Standard Technical Specifications and is not applicable to the BSEP system design.

Page	Description of Change	Basis for Change
3/4 8	-8 Item 4.8.2.3.1 - Revised to add verification of not more than two 37.5 KV power conversion modules are aligned to t B division bus.	
3/4 8	-9 Items 4.8.2.3.2.a and 4.8.2.3.2.b - Revis to conform with the GE/BWR-4 STS.	The present surveillance requirements to determine the battery's operability status are not as conservative as those specified in the Standard Technical Specifications. Because our present Technical Specifications are not within the battery manufacturer's recommended limits, adoption of the Standard Technical Specification surveillance requirements 4.8.2.3.2.a and 4.8.2.3.2.b is warranted. These surveillance requirements are within the battery manufacturer's recommended limits.
3/4 8	-9 Item 4.8.2.3.2.c - One time only exemption to this inspection deleted.	on Administrative in nature.
3/4 8	-10 Item 4.8.2.3.2.d.1 - Deleted (old).	The surveillance requirement 4.8.2.3.2.d.l is not used at BSEP because of the complexity involved in initiating all of the safety systems at one time. Surveillance requirement 4.8.2.3.2.d.2, renumbered as 4.8.2.3.2.d.1, is used to satisfy this requirement.

3/4 8-10 Items 4.8.2.3.2.d.1 (existing) - Renumbered, was 4.8.2.3.2.d.2. Revised test values and test duration based on the new DC system load study.

The 125 Vdc batteries at BSEP are lead-calcium type, Gould Model NCX-1200. The manufacturer's positive plate rating of the battery is eight positive plates. The uncorrected plate rating (before correction for aging, temperature, and design margin per IEEE-485-1983) equals 5.39 positive plates. The 5.39 uncorrected positive plate value correlated to a maximum ampacity value for the first-minute duty cycle profile, equals 916 amperes.

BSEP has performed a detailed DC system load study. The study reflects that the one-minute loading values are less than the 916 ampere maximum value. The first one-minute duty cycle profiles were formulated in accordance with the IEEE-485-1983, IEEE-308-1971 and other BSEP committed design codes and standards. Therefore, the recommended test values of 916 amperes for the first 60 seconds of the profile test, adequately demonstrates the battery's capability to supply the worst case ampacities if required.

By design, the class IE chargers will supply the DC load after the diesel generators reenergize the AC buses, approximately 10 seconds after the loss of off-site power. However, the battery's ability to supply the ampacities, without charger support will be demonstrated. This testing serves as an early warning of degradation between the required 60-month discharge capacity testing. The recommended test values for the remainder of the first 30 minutes and the remainder of the 4-hour test are greater than duty cycle profile ampere values. The total test time of four hours was selected as an adequate time to notice any signs of degradation. The 18-month test is to demonstrate the batteries ability to handle the duty cycle, profile discharge rates, rather than the ampere-hour capacity of the battery.

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3/4 8-10	Item 4.8.2.3.2.d.2 - Mathematical symbol changed to phrase.	Administrative in nature.
3/4 8-10	Item 4.8.2.3.2.e - Revised to allow performance of the 60 month discharge test to supersede the battery service test.	This change is consistent with guidance provided in GE/BWR-4 STS.
3/4 8-11	Table 4.8.2.3.2 - New table providing the parameters to which the surveillance requirements of Section 4.8.2.3.2 must be performed.	These parameters are consistent with guidance provide GE/BWR-4 STS.
3/4 8-12 and 3/4 8-13	New page provides LCO and surveillance requirements for DC Distribution - Operation of One or Both Units.	The present Technical Specifications treat the 125 system as a unitized system. The 250 Vdc divisions shared, while certain circuits of the 125 Vdc divisions
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The limiting conditions for operation placed on both units when a transfer has been affected limits the amount of time the units are allowed to operate with the transfer in place. The surveillance requirements on these circuits will provide control of the transfers and provide added assurance of DC power availability.

Page	Description of Change	Basis for Change
3,4 8-14	Item 3.8.2.4.2 - This section was renumbered and formatted to conform with the GE/BWR-4 STS	Administrative in nature.
3/4 8-14	Item 4.8.2.4.2.1 - Renumbered.	Administrative in nature.
3/4 8-14	Item 4.8.2.4.2.2 - Renumbered.	Administrative in nature.
3/4 8-15	Repaginated.	Administrative in nature.

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D.C. DISTRIBUTION - OPERATING

LIMITING CONDITION FOR OPERATION

- 3.8.2.3 As a minimum, the following D.C. divisions shall be OPERABLE with tie breakers between divisions open:
 - a. Division I, consisting of:
 - 1. A 250/125 volt bus
 - Two 125 volt D.C. batteries, 1A-1 and 1A-2, each with a full capacity charger.
 - b. Division II, consisting of:
 - 1. A 250/125 volt bus.
 - Two 125 volt D.C. batteries, 1B-1 and 1B-2, each with a full capacity charger.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

- a. With one or more batteries and/or its associated charger inoperable in one division, restore the division to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- with one or more batteries and/or its associated charger inoperable in both divisions, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

- 4.8.2.3.1 Each of the above required D.C. divisions shall be determined OPERABLE with tie breakers open at least once per 7 days by verifying:
 - a. Correct breaker alignment and indicated power availability, and
 - b. That no more than two 37.5 KVA power conversion modules are aligned to the B division bus.

SURVEILLANCE REQUIREMENTS (Continued)

- 4.8.2.3.2 Each of the above required 125-volt batteries and chargers shall be demonstrated OPERABLE:
 - a. At least once per 7 days by verifying that:
 - 1. The parameters in Table 4.8.2.3.2-1 meet the Category A limits, and
 - Total battery terminal voltage is greater than or equal to 129 volts on float charge.
 - b. At least once per 92 days by verifying that:
 - 1. The parameters in Table 4.8.2.3.2-1 meet the Category B limits,
 - 2. There is no visible corrosion at either terminals or connectors, or the connection resistance of these items is less than 150×10^{-6} ohms, and
 - The average electrolyte temperature of the connected cells is above 60°F.
 - c. At least once per 18 months by verifying that:
 - The cells, cell plates, and battery racks show no visual indication of physical damage or abnormal deterioration,
 - The cell-to-cell and terminal connections are clean, tight, free of corrosion, and coated with anti-corrosion material, and
 - The battery charger will supply at least 250 amperes at a minimum of 135 volts for at least 4 hours.

SURVEILLANCE REQUIREMENTS (Continued)

- d. At least once per 18 months, during shutdown, by verifying that:
 - The battery capacity is adequate to supply a dummy load of the following profile while maintaining the battery terminal voltage greater than or equal to 105 volts.
 - a) During the initial 60 seconds of the test:
 - 1) Battery IA-1 greater than or equal to 916 amperes.
 - 2) Battery 1A-2 greater than or equal to 916 amperes.
 - 3) Battery 1B-1 greater than or equal to 916 amperes.
 - 4) Battery 1B-2 greater than or equal to 915 amperes.
 - b) During the remainder of the first 30 minutes of the test:
 - 1) Battery IA-1 greater than or equal to 250 amperes.
 - 2) Battery 1A-2 greater than or equal to 250 amperes.
 - 3) Battery 1B-1 greater than or equal to 250 amperes.
 - 4) Battery 1B-2 greater than or equal to 250 amperes.
 - c) During the remainder of the 4 hour test:
 - 1) Battery 1A-1 greater than or equal to 200 amperes.
 - 2) Battery IA-2 greater than or equal to 200 amperes.
 - 3) Battery 18-1 greater than or equal to 200 amperes.
 - 4) Battery 1B-2 greater than or equal to 200 amperes.
 - 2. At the completion of the above tests, the battery charger shall be demonstrated capable of recharging its battery at a rate of at least 200 amperes while supplying normal D.C. loads. The battery shall be charged to at least 95% capacity in less than or equal to 24 hours.
- e. At least once per 60 months, during shutdown, by verifying that the battery capacity is at least 80% of the manufacturer's rating when subjected to a performance discharge test. This performance discharge test may be performed in lieu of the battery service test.

TABLE 4.8.2.3.2-1

BATTERY SURVEILLANCE REQUIREMENTS

	CATEGORY A(1)	CATEGORY B(2)	
Parameter	Limits for each designated pilot cell	Limits for each connected cell	Allowable (3) value for each connected cell
Electrolyto Level	>Minimum level indication mark, and < 1/4" above maximum level indication mark	>Minimum level indication mark, and < 1/4" above maximum level indication mark	Above top of plates, and not overflowing
Float Voltage	≥ 2.13 volts	> 2.13 volts(c)	<u>></u> 2.07 volts
		any one cell > 1.195	Not more than .020 below the average of all connected cells
Specific Gravity(a)	≥ 1.200 ^(b)	Average of all connected cells > 1.205	Average of all connected cells > 1.195(b)

- (a) Corrected for electrolyte temperature and level.
- (b) Or battery charging current is less than 2 amps.
- (c) Corrected for average electrolyte temperature.
- (1) For any Category A parameter(s) outside the limit(s) shown, the battery may be considered OPERABLE provided that within 24 hours all the Category B measurements are taken and found to be within their allowable values, and provided all Category A and B parameter(s) are restored to within limits within the next 7 days.
- (2) For any Category B parameter(s) outside the limit(s) shown, the battery may be considered OPERABLE provided that the Category B parameters are within their allowable values and provided the Category B parameter(s) are restored to within limits within 7 days.
- (3) Any Category B parameter not within its allowable value indicates an inoperable battery.

D.C. DISTRIBUTION - OPERATION OF ONE OR BOTH UNITS

LIMITING CONDITION FOR OPERATION

3.8.2.4.1 The 125 VDC control power circuits shall be OPERABLE from their normal source for the following equipment:

- a. Diesel Generator #1, 4160 V emergency bus E1, and 480 V emergency bus E5.
- b. Diesel Generator #2, 4160 V emergency bus E2, and 480 V emergency bus E6.
- c. Diesel Generator #3, 4160 V emergency bus E3, and 480 V emergency bus E7.
- d. Diesel Generator #4, 4160 V emergency bus E4, and 480 V emergency bus E8.
- e. ESS panel H58*
- f. ESS panel H59*
- g. ESS panel H60*
- h. ESS panel H61*

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

- a. With 125 VDC control power circuit for the diesel generator, 4160 V emergency bus, or 480 V emergency bus not OPERABLE from its normal source, declare the affected diesel generator, 4160 V emergency bus, or 480 V emergency bus inoperable and either:
 - 1. Take the applicable ACTION statement for the inoperable equipment, or
 - Declare the affected equipment OPERABLE by manually transferring the 125 VDC control power circuit for the affected diesel generator, 4160 V emergency bus, or 480 V emergency bus to the OPERABLE alternate source.
- b. With the 125 VDC control power circuit for ESS panels H58, H59, H60, or H61 not OPERABLE from its normal source, either:
 - Verify the alternate source is OPERABLE and that power availability is indicated, or

^{*} The ESS panel automatically transfers to its alternate source should the normal source de-energize. Refer to ACTION b.

LIMITING CONDITION FOR OPERATION

ACTION: (Continued)

- 2. When the alternate source is inoperable, declare the affected equipment inoperable and take the applicable ACTION statement for the inoperable equipment, or
- 3. Verify the 125 VDC control power circuit for the affected ESS panel has automatically transferred to its OPERABLE alternate source and that power availability is indicated.
- c. Restore the affected 125 VDC control power circuit to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.8.2.4.1.1 The above specified normal 125 volt D.C. control power circuits shall be determined OPERABLE at least once per 7 days by verifying correct breaker alignment and indicated power availability.

4.8.2.4.1.2 The batteries and chargers associated with the above normal 125 volt D.C. control power circuits shall be determined OPERABLE per Surveillance Requirement 4.8.2.3.2.

D.C. DISTRIBUTION - SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.2.4.2 As a minimum, Division I or Division II of the D.C. power distribution system shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 4, 5, and *.

ACTION:

- With less than Division I or Division II of the above required D.C. distribution system OPERABLE, suspend CORE ALTERATIONS, handling of irradiated fuel in the secondary containment, and all operations that could decrease SHUTDOWN MARGIN of have the potential for draining the reactor vessel. Restore at least one division to OPERABLE status within 7 days.
- b. The provisions of Specification 3.0,3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.8.2.4.2.1 The above required D.C. Division shall be determined OPERABLE at least once per 7 days by verifying correct breaker alignment and indicated power availability.

4.8.2.4.2.2 The batteries and chargers associated with the above required division shall be demonstrated OPERABLE per Surveillance Requirement 4.8.2.3.2.

^{*}When handling irradiated fuel in the secondary containment.

REACTOR PROTECTION SYSTEM ELECTRIC POWER MONITORING

LIMITING CONDITION FOR OPERATION

3.8.2.5 Two RPS electric power monitoring channels for each inservice RPS MG set or alternate source shall be OPERABLE.

APPLICABILITY: Whenever the respective power supply is supplying power to a RPS bus.

ACTION:

- a. With one RPS electric power monitoring channel for an inservice RPS MG set or alternate power supply inoperable, restore the inoperable channel to OPERABLE status within 72 hours or remove the associated RPS MG set or alternate power supply from service.
- b. With both RPS electric power monitoring channels for an inservice RPS MG set or alternate power supply inoperable, restore at least one to OPERABLE status within 30 minutes or remove the associated RPS MG set or alternate power supply from service.

SURVEILLANCE REQUIREMENTS

4.8.2.5 The above specified RPS power monitoring system instrumentation shall be determined OPERABLE:

- a. At least once per 6 months by performance of a CHANNEL FUNCTIONAL TEST, and
- b. At least once per 18 months by demonstrating the OPERABILITY of over-voltage, under-voltage, and under-frequency protective instrumentation by performance of a CHANNEL CALIBRATION including simulated automatic actuation of the protective relays, tripping logic, and output circuit breakers and verifying the following setpoints:

		RPS MG SET	ALTERNATE SOURCE
1.	Over-voltage	<u> < 129 VAC</u>	≤ 132 VAC
2.	Under-voltage	> 105 VAC	≥ 108 VAC
3.	Under-frequency	≥ 57 Hz	≥ 57 Hz

ATTACHMENT 2

SERIAL: NLS-84-333

BRUNSWICK STEAM ELECTRIC PLANT
PROPOSED TECHNICAL SPECIFICATION PAGES - UNIT 2

(CP&L SERIAL: 84TSB31)

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Page	Description of Change	Basis for Change
VIII	Revised to reflect addition of "DC Distribution - Operation of One or Both Units" section and pagination.	Administrative in nature.
3/4 8-8	Item 3.8.2.3 - Reformatted to more closely conform with the GE/BWR-4 STS.	Administrative in nature.
3/4 8-8	Action a - Revised to reflect DC system design at Brunswick. "With one battery, or one charger, or one battery and its associated charger" changed to "with one or more batteries and/or its associated charger."	The DC system design at BSEP consists of four 125 Vdc batteries and chargers per unit. Each of the 125 Vdc batteries and its associated charger provide 125 Vdc control and instrumentation power for various safety-related and BOP loads. Two of the batteries and their associated chargers are connected to form the Division I 250 Vdc power supply. The other two form the Division II 250 Vdc power supply. Therefore, an inoperable battery and/or an inoperable charger renders the 250V division inoperable. BSEP has been analyzed for the loss of one DC division. Results from this analysis reflect that sufficient ECCS equipment is maintained to mitigate the postulated events. Because the system has been analyzed for a complete loss of one division, the seven-day LCO is applicable regardless of the number of inoperable batteries and/or chargers in the one division.
3/4 8-8	Action b - Revised to require an orderly plant shutdown upon loss of both DC power divisions.	Loss of more than one division of DC power per unit could result in less than the minimum ECCS requirements. Therefore, an orderly shutdown of the unit is warranted with both DC divisions declared inoperable. When one or more batteries and/or its associated charger in both divisions is declared inoperable, the action statement requiring hot shutdown is applicable.
3/4 8-8	Action c - Deleted.	With the rewording of LCO 3.8.2.3 Action Statement a, the current Action Statement c is no longer required. The two-hour LCO that was specified for the loss of one DC division,

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3/4 8-8	Item 4.8.2.3.1 - Revised to add verification of not more than two 37.5 KVA power conversion modules are aligned to the B division bus.	The "B" Division Batteries provide the normal feed to the Lighting and Communication Inverter for its respective unit. It also provides the alternate feed to the Plant UPS (normally fed from "A" Division) and the opposite unit Lighting and Communications Inverter. The load study reflects that the resultant value of all 3 of the 37.5 KVA power conversion modules aligned to the B Division Batteries during the DBA would exceed the 916 ampere value. Therefore, a restriction will be placed to allow a maximum of two inverters (one Plant UPS and one Lighting and Communications Inverter) or (Both Lighting and Communications Inverters) to be fed from the "B" Division Batteries at the same time.
3/4 8-9	Items 4.8.2.3.2.a and 4.8.2.3.2.b - Revised to conform with the GE/BWR-4 STS.	The present surveillance requirements to determine the battery's operability status are not as conservative as those specified in the Standard Technical Specifications. Because our present Technical Specifications are not within the battery manufacturer's recommended limits, adoption of the Standard Technical Specification surveillance requirements 4.8.2.3.2.a and 4.8.2.3.2.b is warranted. These surveillance requirements are within the battery manufacturer's recommended limits.
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		The 125 Vdc divisions are shared between units, because they provide 125 Vdc control power for the on-site Class IE AC Power Distribution System. The on-site Class IE AC Power Distribution System is shared between units in that three of the four AC divisions between the two units are required to maintain the minimum ECCS requirements. When the DC control power for diesel generators, 4160V emergency buses, 480V emergency buses, or ESS logic cabinets is transferred to its

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3/4 8-14	Item 4.8.2.4.2.2 - Renumbered.	Administrative in nature.
3/4 8-15	Repaginated.	Administrative in nature.

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Operation of One or Both Units.....

Shutdown of Both Units.....

A.C. Distribution - Operation of One or Both Units.....

A.C. Distribution - Shutdown of Both Units.....

D.C. Distribution - Operating.....

D.C. Distribution - Operation of One or Both Units.....

RPS Electric Power Monitoring.....

3/4.9.1 REACTOR MODE SWITCH.....

3/4.8.2 ONSITE POWER DISTRIBUTION SYSTEMS

3/4.9 REFUELING OPERATIONS

D.C. DISTRIBUTION - OPERATING

LIMITING CONDITION FOR OPERATION

- 3.8.2.3 As a minimum, the following D.C. divisions shall be OPERABLE with tie breakers between divisions open:
 - Division I, consisting of:
 - 1. A 250/125 volt bus.
 - Two 125 volt D.C. batteries, 2A-1 and 2A-2, each with a full 2. capacity charger.
 - Division II, consisting of: b.
 - A 250/125 volt bus. 1.
 - Two 125 volt D.C. batteries, 2B-1 and 2B-2, each with a full capacity charger.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

- With one or more batteries and/or its associated charger inoperable in one division, restore the division to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- With one or more batteries and/or its associated charger inoperable in both divisions, be in at least HOT SHUTDOWN within the next 12 b. hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIPEMENTS

- 4.8.2.3.1 Each of the above required D.C. divisions shall be determined OPERABLE with tie breakers open at least once per 7 days by verifying:
 - Correct breaker alignment and indicated power availability, and
 - No more than two 37.5 KVA power conversion modules aligned to the B division bus.

SURVEILLANCE REQUIREMENTS (Continued)

- 4.8.2.3.2 Each of the above required 125-volt batteries and chargers shall be demonstrated OP_RABLE:
 - a. At least once per 7 days by verifying that:
 - The parameters in Table 4.8.2.3.2-1 meet the Category A limits, and
 - Total battery terminal voltage is greater than or equal to 129 volts on float charge.
 - b. At least once per 92 days by verifying that:
 - 1. The parameter in Table 4.8.2.3.2-1 meet the Category B limits
 - 2. There is no visible corrosion at either terminals or connectors, or the connection resistance of these items is less than 150×10^{-6} ohms, and
 - The average electrolyte temperature of the connected cells is above 60°F.
 - c. At least once per 18 months by verifying that:
 - The cells, cell plates, and battery racks show no visual indication of physical damage or abnormal deterioration,
 - The cell-to-cell and terminal connections are clean, tight, free of corrosion, and coated with anti-corrosion material, and
 - The battery charger will supply at least 250 amperes at a minimum of 135 volts for at least 4 hours.

SURVEILLANCE REQUIREMENTS (Continued)

- d. At least once per 18 months, during shutdown, by verifying that:
 - The battery capacity is adequate to supply a dummy load of the following profile while maintaining the battery terminal voltage greater than or equal to 105 volts.
 - a) During the initial 60 seconds of the test:
 - 1) Battery 2A-1 greater than or equal to 916 amperes.
 - 2) Battery 2A-2 greater than or equal to 916 amperes.
 - 3) Battery 2B-1 greater than or equal to 916 amperes.
 - 4) Battery 2B-2 greater than or equal to 916 amperes.
 - b) During the remainder of the first 30 minutes of the test:
 - 1) Battery 2A-1 greater than or equal to 250 amperes.
 - 2) Battery 2A-2 greater than or equal to 250 amperes.
 - 3) Battery 2B-1 greater than or equal to 250 amperes.
 - 4) Battery 2B-2 greater than or equal to 250 amperes.
 - c) During the remainder of the 4 hour test:
 - 1) Battery 2A-1 greater than or equal to 200 amperes.
 - 2) Battery 2A-2 greater than or equal to 200 amperes.
 - 3) Battery 2B-1 greater than or equal to 200 amperes.
 - 4) Battery 2B-2 greater than or equal to 200 amperes.
 - 2. At the completion of the above tests, the battery charger shall be demonstrated capable of recharging its battery at a rate of at least 200 amperes while supplying normal D.C. loads. The battery shall be charged to at least 95% capacity in less than or equal to 24 hours.
 - e. At least once per 60 months during shutdown, by verifying that the battery capacity is at least 80% of the manufacturer's rating when subjected to a performance discharge test. This performance discharge test may be performed in lieu of the battery service test.

TABLE 4.8.2.3.2-1

BATTERY SURVEILLANCE REQUIREMENTS

	CATEGORY A ⁽¹⁾ Limits for each designated pilot cell	CATEGORY B(2)	
Parameter		Limits for each connected cell	Allowable ⁽³⁾ value for each connected cell
Electrolyte Level	>Minimum level indication mark, and ≤ 1/4" above maximum level indication mark	Minimum level indication mark, and ≤ 1/4" above maximum level indication mark	Above top of plates, and not overflowing
Float Voltage	> 2.13 volts	> 2.13 volts(c)	> 2.07 volts
		any one cell ≥ 1.195	Not more than .020 below the average of all connected cells
Specific Gravity(a)	≥ 1.200 ^(b)	Average of all connected cells > 1.205	Average of all connected cells > 1.195(b)

- (a) Corrected for electrolyte temperature and level.
- (b) Or battery charging current is less than 2 amps.
- (c) Corrected for average electrolyte temperature.
- (1) For any Category A parameter(s) outside the limit(s) shown, the battery may be considered OPERABLE provided that within 24 hours all the Category B measurements are taken and found to be within their allowable values, and provided all Category A and B parameter(s) are restored to within limits within the next 7 days.
- (2) For any Category B parameter(s) outside the limit(s) shown, the battery may be considered OPERABLE provided that the Category B parameters are within their allowable values and provided the Category B parameter(s) are restored to within limits within 7 days.
- (3) Any Category B parameter not within its allowable value indicates an inoperable battery.

D.C. DISTRIBUTION - OPERATION OF ONE OR BOTH UNITS

LIMITING CONDITION FOR OPERATION

3.8.2.4.1 The 125 VDC control power circuits shall be OPERABLE from their normal source for the following equipment:

- a. Diesel Generator #1, 4160 V emergency bus E1, and 480 V emergency bus E5.
- b. Diesel Generator #2, 4160 V emergency bus E2, and 480 V emergency bus E6.
- c. Diesel Generator #3, 4160 V emergency bus E3, and 480 V emergency bus E7.
- d. Diesel Generator #4, 4160 V emergency bus E4, and 480 V emergency bus E8.
- e. ESS panel H58*
- f. ESS panel H59*
- g. ESS panel H60*
- h. ESS panel H61*

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

- a. With 125 VDC control power circuit for the diesel generator, 4160 V emergency bus, or 480 V emergency bus not OPERABLE from its normal source, declare the affected diesel generator, 4160 V emergency bus, or 480 V emergency bus inoperable and either:
 - 1. Take the applicable ACTION statement for the inoperable equipment, or
 - 2. Declare the affected equipment OPERABLE by manually transferring the 125 VDC control power circuit for the affected diesel generator, 4160 V emergency bus, or 480 V emergency bus to the OPERABLE alternate source.
- b. With the 125 VDC control power circuit for ESS panels E58, H59, H60, or H61 not OPERABLE from its normal source, either:
 - Verify the alternate source is OPERABLE and that power availability is indicated, or

^{*} The ESS panel automatically transfers to its alternate source should the normal source de-energize. Refer to ACTION b.

LIMITING CONDITION FOR OPERATION

ACTION: (Continued)

- When the alternate source is inoperable, declare the affected equipment inoperable and take the applicable ACTION statement for the inoperable equipment, or
- 3. Verify the 125 VDC control power circuit for the affected ESS panel has automatically transferred to its OPERABLE alternate source and that power availability is indicated.
- c. Restore the affected 125 VDC control power circuit to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.8.2.4.1.1 The above specified normal 125 volt D.C. control power circuits shall be determined OPERABLE at least once per 7 days by verifying correct breaker alignment and indicated power availability.

4.8.2.4.1.2 The batteries and chargers associated with the above normal 125 volt D.C. control power circuits shall be determined OPERABLE per Surveillance Requirement 4.8.2.3.2.

D.C. DISTRIBUTION - SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.2.4.2 As a minimum, Division I or Division II of the D.C. power distribution system shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 4, 5, and *.

ACTION:

- a. With less than Division I or Division II of the above required D.C. distribution system OPERABLE, suspend CORE ALTERATIONS, handling of irradiated fuel in the secondary containment, and all operations that could decrease SHUTDOWN MARGIN or have the potential for draining the reactor vessel. Restore at least one division to OPERABLE status within 7 days.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.8.2.4.2.1 The above required D.C. Division shall be determined OPERABLE at least once per 7 days by verifying correct breaker alignment and indicated power availability.

4.8.2.4.2.2 The batteries and chargers associated with the above required division shall be demonstrated OPERABLE per Surveillance Requirement 4.8.2.3.2.

^{*}When handling irradiated fuel in the secondary containment.

REACTOR PROTECTION SYSTEM ELECTRIC POWER MONITORING

LIMITING CONDITION FOR OPERATION

3.8.2.5 Two RPS electric power monitoring channels for each inservice RPS MG set or alternate source shall be OPERABLE.

APPLICABILITY: Whenever the respective power supply is supplying power to a RPS bus.

ACTION:

- a. With one RPS electric power monitoring channel for an inservice RPS MG set or alternate power supply inoperable, restore the inoperable channel to OPERABLE status within 72 hours or remove the associated RPS MG set or alternate power supply from service.
- b. With both RPS electric power monitoring channels for an inservice RPS MG set or alternate power supply inoperable, restore at least one to CPTRABLE status within 30 minutes or remove the associated RPS MG set o alternate power supply from service.

SURVEILLANCE REQUIREMENTS

4.8.2.5 The above specified RPS power monitoring system instrumentation shall be determined OPERABLE:

- a. At least once per 6 months by performance of a CHANNEL FUNCTIONAL TEST, and
- b. At least once per 18 months by demonstrating the OPERABILITY of over-voltage, under-voltage, and under-frequency protective instrumentation by performance of a CHANNEL CALIBRATION including simulated automatic actuation of the protective relays, tripping logic, and output circuit breakers and verifying the following setpoints:

		RPS MG SET	ALTERNATE SOURCE
1.	Over-voltage	≤ 129 VAC	≤ 132 VAC
2.	Under-voltage	≥ 105 VAC	> 108 VAC
3.	Under-frequency	≥ 57 Hz	<u>></u> 57 Hz