

TABLE OF CONTENTS

	<u>Page</u>
Section 1	Definitions
1.1	Operable - Operability 1.0-1
1.2	Operating 1.0-1
1.3	Power Operation 1.0-1
1.4	Startup Mode 1.0-1
1.5	Run Mode 1.0-1
1.6	Shutdown Condition 1.0-1
1.7	Cold Shutdown 1.0-2
1.8	Place in Shutdown Condition 1.0-2
1.9	Place in Cold Shutdown Condition 1.0-2
1.10	Place in Isolation Condition 1.0-2
1.11	Refuel Mode 1.0-2
1.12	Refueling Outage 1.0-2
1.13	Primary Containment Integrity 1.0-2
1.14	Secondary Containment Integrity 1.0-3
1.15	Deleted 1.0-3
1.16	Rated Flux 1.0-3
1.17	Reactor Thermal Power-To-Water 1.0-3
1.18	Protective Instrumentation Logic Definitions 1.0-3
1.19	Instrumentation Surveillance Definitions 1.0-4
1.20	FDSAR 1.0-4
1.21	Core Alteration 1.0-4
1.22	Critical Power Ratio 1.0-4
1.23	Staggered Test Basis 1.0-4
1.24	Surveillance Requirements 1.0-5
1.25	Appendix J Test Pressure 1.0-5
1.26	Fraction of Limiting Power Density (FLPD) 1.0-5
1.27	Maximum Fraction of Landing Power Density (MFLPD) 1.0-5
1.28	Fraction of Rated Power (FRP) 1.0-6
1.29	Top of Active Fuel (TAF) 1.0-6
1.30	Reportable Event 1.0-6
1.31	Identified Leakage 1.0-6
1.32	Unidentified Leakage 1.0-6
1.33	Process Control Plan 1.0-6
1.34	Augmented Offgas System (AOG) 1.0-6
1.35	Member of the Public 1.0-6
1.36	Offsite Dose Calculation Manual 1.0-6
1-37	Purge 1.0-7
1.39	Site Boundary 1.0-7
1.39	Reactor Vessel Pressure Testing 1.0-7
1.40	Substantive Changes 1.0-7
1.41	Dose Equivalent I-131 1.0-7
1.42	Average Planar Linear Heat Generation Rate 1.0-8
1.43	Core Operating Limits Report 1.0-8

TABLE OF CONTENTS (Cont'd)

	<u>Page</u>	
1.44	Local Linear Heat Generation Rate	1.0-8
1.45	Shutdown Margin (SDM)	1.0-8
1.46	Idle Recirculation Loop	1.0-8
1.47	Isolated Recirculation Loop	1.0-8
1.48	Operational Condition	1.0-8
Section 2	Safety Limits and Limiting Safety System Settings	
2.1	Safety Limit - Fuel Cladding Integrity	2.1-1
2.2	Safety Limit - Reactor Coolant System Pressure	2.2-1
2.3	Limiting Safety System Settings	2.2-3
Section 3	Limiting Conditions for Operation	
3.0	Limiting Conditions for Operation (General)	3.0-1
3.1	Protective Instrumentation	3.1-1
3.2	Reactivity Control	3.2-1
3.3	Reactor Coolant	3.3-1
3.4	Emergency Cooling	3.4-1
3.5	Containment	3.5-1
3.6	Radioactive Effluents	3.6-1
3.7	Auxiliary Electrical Power	3.7-1
3.8	Isolation Condenser	3.8-1
3.9	Refueling	3.9-1
3.10	Core Limits	3.10-1
3.11	(Not Used)	3.11-1
3.12	Alternate Shutdown Monitoring Instrumentation	3.12-1
3.13	Accident Monitoring Instrumentation	3.13-1
3.14	DELETED	3.14-1
3.15	Explosive Gas Monitoring Instrumentation	3.15-1
3.16	(Not Used)	3.16-1
3.17	Control Room Heating, Ventilating and Air Conditioning System	3.17-1
Section 4	Surveillance Requirements	
4.0	Surveillance Requirement Applicability	4.0-1
4.1	Protective Instrumentation	4.1-1
4.2	Reactivity Control	4.2-1
4.3	Reactor Coolant	4.3-1
4.4	Emergency Cooling	4.4-1
4.5	Containment	4.5-1
4.6	Radioactive Effluents	4.6-1
4.7	Auxiliary Electrical Power	4.7-1
4.8	Isolation Condenser	4.8-1
4.9	Refueling	4.9-1

TABLE OF CONTENTS (Cont'd)

	<u>Page</u>	
4.10	ECCs Related Core Limits	4.10-1
4.11	Sealed Source Contamination	4.11-1
4.12	Alternate Shutdown Monitoring Instrumentation	4.12-1
4.13	Accident Monitoring Instrumentation	4.13-1
4.14	DELETED	4.14-1
4.15	Explosive Gas Monitoring Instrumentation	4.15-1
4.16	(Deleted)	4.16-1
4.17	Control Room Heating, Ventilating and Air Conditioning System	4.17-1
Section 5	Design Features	
5.1	Site	5.1-1
5.2	Containment	5.2-1
5.3	Auxiliary Equipment	5.3-1
Section 6	Administrative Controls	
6.1	Responsibility	6-1
6.2	Organization	6-1
6.3	Facility Staff Qualifications	6-2a
6.4	DELETED	6-3
6.5	Review and Audit	6-3
6-6	Reportable Event Action	6-9
6-7	Safety Limit Violation	6-9
6-8	Procedures and Programs	6-10
6-9	Reporting Requirements	6-13
6-10	Record Retention	6-17
6-11	Radiation Protection Program	6-18
6-12	(Deleted)	6-18
6-13	High Radiation Area	6-18
6-14	Environmental Qualification	6-19*
6-15	Integrity of Systems Outside Containment	6-19
6-16	Iodine Monitoring	6-19
6-17	Post Accident Sampling	6-20
6-18	Process Control Plan	6-20
6-19	Offsite Dose Calculation Manual	6-20
6-20	DELETED	6-20
6-21	Technical Specification (TS) Bases Control Program	6-21

*Issued by NRC Order dated 10-24-80

1.42 AVERAGE PLANAR LINEAR HEAT GENERATION RATE

The AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR) shall be applicable to a specific planar height and is equal to the sum of the heat generation rate per unit length of fuel rod for all the fuel rods in the specified bundle at the specified height divided by the number of fuel rods in the fuel bundle at that height.

1.43 CORE OPERATING LIMITS REPORT

The Oyster Creek CORE OPERATING LIMITS REPORT (COLR) is the document that provides core operating limits for the current operating reload cycle. These cycle-specific core operating limits shall be determined for each reload cycle in accordance with Specification 6.9.1.f. Plant operation within these operating limits is addressed in individual specifications.

1.44 LOCAL LINEAR HEAT GENERATION RATE

The LOCAL LINEAR HEAT GENERATION RATE (LLHGR) shall be applicable to a specific planar height and is equal to the AVERAGE PLANAR LINEAR GENERATION RATE (APLHGR) at the specified height multiplied by the local peaking factor at that height.

1.45 SHUTDOWN MARGIN (SDM)

SHUTDOWN MARGIN is the amount of reactivity by which the reactor would be subcritical when the control rod with the highest reactivity worth is fully withdrawn, all other operable control rods are fully inserted, all inoperable control rods are at their current position, reactor water temperature is 68°F, and the reactor fuel is xenon free. Determination of the control rod with the highest reactivity worth includes consideration of any inoperable control rods which are not fully inserted.

1.46 IDLE RECIRCULATION LOOP

A recirculation loop is idle when its discharge valve is in the closed position and its discharge bypass valve and suction valve are in the open position.

1.47 ISOLATED RECIRCULATION LOOP

A recirculation loop is fully isolated when the suction valve, discharge valve and discharge bypass valve are in the closed position.

1.48 OPERATIONAL CONDITION

The reactor plant operational status as to criticality, reactor mode switch position, reactor coolant temperature, and/or specific system status. These conditions consist of POWER OPERATION, STARTUP MODE, SHUTDOWN CONDITION, COLD SHUTDOWN CONDITION, and REFUEL MODE. A change or entry into an operating condition is signified by movement of the reactor mode switch or a change in reactor coolant temperature from $<212^{\circ}\text{F}$ to $\geq 212^{\circ}\text{F}$.

SECTION 3

LIMITING CONDITIONS FOR OPERATION

3.0 LIMITING CONDITIONS FOR OPERATION (GENERAL)

Applicability: Applies to all Limiting Conditions for Operation.

Objective: To preserve the single failure criterion for safety systems.

Specifications:

- A. In the event Limiting Conditions for Operation (LCOs) and/or associated action requirements cannot be satisfied because of circumstances in excess of those addressed in the specification, the unit shall be placed in COLD SHUTDOWN within the following 30 hours unless corrective measures are completed that permit operation under the permissible action statements for the specified time interval as measured from initial discovery or until the reactor is placed in a condition in which the specification is not applicable. Exceptions to the requirements shall be stated in the individual specifications.
- B. When a system, subsystem, train, component or device is determined to be inoperable solely because its emergency power source is inoperable, or solely because its normal power source is inoperable, it may be considered OPERABLE for the purpose of satisfying the requirements of applicable LCOs., provided (1) its corresponding normal or emergency power source is OPERABLE; and (2) all of its redundant system(s), subsystem(s), train(s), component(s) and device(s) are OPERABLE, or likewise satisfy the requirements of this specification. Unless both conditions (1) and (2) are satisfied, the unit shall be placed in COLD SHUTDOWN within the following 30 hours or within the time specified in the applicable specification. This specification is not applicable in COLD SHUTDOWN or the REFUEL MODE.
- C. When an LCO is not met, entry into an OPERATIONAL CONDITION or other specified condition in the Applicability shall only be made:
 1. When the associated LCO requirements permit continued operation in the OPERATIONAL CONDITION or other specified condition in the Applicability for an unlimited period of time; or
 2. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the OPERATIONAL CONDITION or other specified condition in the applicability, and the establishment of risk management actions, if appropriate; exceptions to this specification are stated in the individual Specifications, or
 3. When an allowance is stated in the individual value, parameter, or other Specification.

This provision shall not prevent entry into OPERATIONAL CONDITIONS or other specified conditions in the Applicability that are required to comply with LCO requirements or that are part of a shutdown of the unit.

Bases:

Specification 3.0.A delineates the action to be taken for circumstances not directly provided for in the system LCOs and whose occurrence would violate the intent of the specification.

Specification 3.0.B delineates what additional conditions must be satisfied to permit operation to continue, consistent with the specifications for power sources, when a normal or emergency power source is not operable. It allows operation to be governed by the time limits of the specifications associated with the LCOs for the normal or emergency power source, not the individual specifications for each system, subsystem, train, component or device that is determined to be inoperable solely because of the inoperability of its normal or emergency power source. In addition, it specifically prohibits operation when one division is inoperable because its normal or emergency power source is inoperable and a safety subsystem, train, component, or device in another division is inoperable for another reason.

Specification 3.0.C establishes limitations on changes in OPERATIONAL CONDITIONS or other specified conditions in the Applicability when an LCO is not met. It allows placing the plant in an OPERATIONAL CONDITION or other specified condition stated in the Applicability (e.g., the Applicability desired to be entered) when plant conditions are such that the requirements of the LCO would not be met, in accordance with LCO 3.0.C.1, LCO 3.0.C.2, or LCO 3.0.C.3.

LCO 3.0.C.1 allows entry into an OPERATIONAL CONDITION or other specified condition in the Applicability with the requirements of the LCO met that permit continued operation in the OPERATIONAL CONDITION or other specified condition in the Applicability for an unlimited period of time. Compliance with LCO conditions that permit continued operation of the unit for an unlimited period of time in an OPERATIONAL CONDITION or other specified condition in the Applicability provides an acceptable level of safety for continued operation. This is without regard for the status of the unit before or after the change in OPERATIONAL CONDITION. Therefore, in such cases, entry into an OPERATIONAL CONDITION or other specified condition in the Applicability may be made in accordance with the provisions of the LCO conditions.

LCO 3.0.C.2 allows entry into an OPERATIONAL CONDITION or other specified condition in the Applicability with the requirements of the LCO met after performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the OPERATIONAL CONDITION or other specified condition in the Applicability, and establishment of risk management actions, if appropriate.

The risk assessment may use quantitative, qualitative, or blended approaches, and the risk assessment will be conducted using the plant program, procedures, and criteria in place to implement 10 CFR 50.65(a)(4), which requires that risk impacts of maintenance activities be assessed and managed. The risk assessment, for the purposes of LCO 3.0.C.2, must take into account all inoperable Technical Specification equipment regardless of whether the equipment is included in the normal 10 CFR 50.65(a)(4) risk assessment scope. The risk assessments will be conducted using the procedures and guidance endorsed by Regulatory Guide 1.182, "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants." Regulatory Guide 1.182 endorses the guidance in Section 11 of NUMARC 93-01, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants." These documents address general guidance for the conduct of the risk assessment, quantitative and qualitative guidelines for establishing risk management actions, and example risk management actions. These include actions to plan and conduct other activities in a manner that controls overall risk, increased risk awareness by shift and management personnel, actions to reduce the duration of the condition, actions to minimize the magnitude of risk increases (establishment of backup success paths or compensatory measures), and determination that the proposed change in OPERATIONAL CONDITION is acceptable. Consideration should also be given to the probability of completing restoration such that the requirements of the Limiting Condition for Operation would be met prior to the expiration of the specified allowable time interval requiring action to exit the LCO.

LCO 3.0.C.2 may be used with single, or multiple systems and components unavailable. NUMARC 93-01 provides guidance relative to consideration of simultaneous unavailability of multiple systems and components.

The results of the risk assessment shall be considered in determining the acceptability of entering the OPERATIONAL CONDITION or other specified condition in the Applicability, and any corresponding risk management actions. The Specification 3.0.C.2 risk assessments do not have to be documented.

The Technical Specifications allow continued operation with equipment unavailable in the RUN MODE for the duration of the specified time interval. Since this is allowable, and since in general the risk impact in that particular OPERATIONAL CONDITION bounds the risk of transitioning into and through the applicable OPERATIONAL CONDITIONS or other specified conditions in the Applicability of the Limiting Condition for Operation, the use of the Specification 3.0.C.2 allowance should be generally acceptable, as long as the risk is assessed and managed as stated above. However, there is a small subset of systems and components that have been determined to be more important to risk and use of the Specification 3.0.C.2 allowance is prohibited. The Limiting Condition for Operations governing these systems and components contain Notes prohibiting the use of Specification 3.0.C.2 by stating that Specification 3.0.C.2 is not applicable.

Specification 3.0.C.3 allows entry into an OPERATIONAL CONDITION or other specified condition in the Applicability with the Limiting Condition for Operation not met based on a Note in the Specification which states Specification 3.0.C.3 is applicable. These specific allowances permit entry into OPERATIONAL CONDITIONS or other specified conditions in the Applicability when the associated LCO requirements do not provide for continued operation for an unlimited period of time and a risk assessment has not been performed. This allowance may apply to all the LCO conditions or to a specific requirement of a Specification. The risk assessments performed to justify the use of Specification 3.0.C.2 usually only consider systems and components. For this reason, Specification 3.0.C.3 is typically applied to Specifications which describe values and parameters, and may be applied to other Specifications based on NRC plant-specific approval.

The provisions of this Specification should not be interpreted as endorsing the failure to exercise the good practice of restoring systems or components to OPERABLE status before entering an associated OPERATIONAL CONDITION or other specified condition in the Applicability.

The provisions of Specification 3.0.C shall not prevent changes in OPERATIONAL CONDITIONS or other specified conditions in the Applicability that are required to comply with LCO requirements. In addition, the provisions of Specification 3.0.C shall not prevent changes in OPERATIONAL CONDITIONS or other specified conditions in the Applicability that result from any unit shutdown. In this context, a unit shutdown is defined as a change in OPERATIONAL CONDITION or other specified condition in the Applicability associated with transitioning from POWER OPERATION to STARTUP MODE, STARTUP MODE to SHUTDOWN CONDITION, and SHUTDOWN CONDITION to COLD SHUTDOWN CONDITION.

Upon entry into an OPERATIONAL CONDITION or other specified condition in the Applicability with the Limiting Condition for Operation not met, Specification 3.0.A requires entry into the LCO requirements until the Condition is resolved, until the Limiting Condition for Operation is met, or until the unit is not within the Applicability of the Technical Specification.

Surveillances do not have to be performed on the associated inoperable equipment (or on variables outside the specified limits), as permitted by Specification 4.0.1. Therefore, utilizing Specification 3.0.C is not a violation of Specification 4.0.1 or Specification 4.0.3 for any Surveillances that have not been performed on inoperable equipment. However, Surveillance Requirements must be met to ensure OPERABILITY prior to declaring the associated equipment OPERABLE (or variable within limits) and restoring compliance with the affected Limiting Condition for Operation.

3.4 EMERGENCY COOLING

Applicability: Applies to the operating status of the emergency cooling systems.

Objective: To assure operability of the emergency cooling systems.

Specifications:

A. Core Spray System

NOTE: LCO 3.0.C.2 is not applicable to the Core Spray System

1. The core spray system shall be operable at all times with irradiated fuel in the reactor vessel, except as otherwise specified in this section.
2. The absorption chamber water volume shall be at least 82,000 ft.³ in order for the core spray system to be considered operable.
3. If one core spray system loop or its core spray header delta P instrumentation becomes inoperable during the run mode, the reactor may remain in operation for a period not to exceed 7 days provided:
 - a. The remaining loop has no inoperable components and is verified daily to be operable and,
 - b. The average planar linear heat generation rate (APLHGR) of all the rods in any fuel assembly, as a function of average planar exposure, at any axial location shall not exceed 90% of the limits given in Specification 3.10.A. The action to bring the core to 90% of the APLHGR Limits must be completed within two hours after the system has been determined to be inoperable.
4. The reactor may remain in operation for a period not to exceed 15 days if one of the redundant active loop components in the core spray system becomes inoperable during the run mode provided:
 - a. In the event of an inoperable core spray booster pump, the other core spray booster pump in the loop is verified daily to be operable.
 - b. In the event of an inoperable core spray main pump, the other core spray main pump in the loop is verified daily to be operable and the APLHGR of all the rods in any fuel assembly, as a function of average planar exposure, at any axial location shall not exceed 90% of the limits given in Specification 3.10.A. The action to bring the core to 90% of the APLHGR Limits must be completed within two hours after the component has been determined to be inoperable.
 - c. If two of the redundant active loop components become inoperable, the limits of Specification 3.4.A.3 shall apply.

2. If at any time there are only four operable electromatic relief valves, the reactor may remain in operation for a period not to exceed 3 days provided the motor operated isolation and condensate makeup valves in both isolation condensers are verified daily to be operable.
3. If Specifications 3.4.B.1 and 3.4.B.2 are not met; reactor pressure shall be reduced to 110 psig or less, within 24 hours.
4. The time delay set point for initiation after coincidence of low-low-low reactor water level and high drywell pressure shall be set not to exceed two minutes.

C. Containment Spray System and Emergency Service Water System

NOTE: LCO 3.0.C.2 is not applicable to the Containment Spray System and Emergency Service Water System

1. The containment spray system and the emergency service water system shall be operable at all times with irradiated fuel in the reactor vessel, except as specified in Specifications 3.4.C.3, 3.4.C.4, 3.4.C.6 and 3.4.C.8.
2. The absorption chamber water volume shall not be less than 82,000 ft³ in order for the containment spray and emergency service water system to be considered operable.
3. If one emergency service water system loop becomes inoperable, its associated containment spray system loop shall be considered inoperable. If one containment spray system loop and/or its associated emergency service water system loop becomes inoperable during the run mode, the reactor may remain in operation for a period not to exceed 7 days provided the remaining containment spray system loop and its associated emergency service water system loop each have no inoperable components and are verified daily to be operable.
4. If a pump in the containment spray system or emergency service water system becomes inoperable, the reactor may remain in operation for a period not to exceed 15 days provided the other similar pump is verified daily to be operable. A maximum of two pumps may be inoperable provided the two pumps are not in the same loop. If more than two pumps become inoperable, the limits of Specification 3.4.C.3 shall apply.
5. During the period when one diesel is inoperable, the containment spray loop and emergency service water system loop connected to the operable diesel shall have no inoperable components.
6. If primary containment integrity is not required (see Specification 3.5.A), the containment spray system may be made inoperable.

3.6 Radioactive Effluents

Applicability: Applies to the radioactive effluents of the facility.

Objective: To assure that radioactive material is not released to the environment in an uncontrolled manner and to assure that the radioactive concentrations of any material released is kept as low as is reasonably achievable and, in any event, within the limits of 10 CFR part 20.1301 and 40 CFR Part 190.10(a).

Specification:

3.6.A. Reactor Coolant Radioactivity

The specific activity of the primary coolant except during REFUEL MODE shall be limited to: Less than or equal to 0.2 microcuries per gram DOSE EQUIVALENT (D.E.) I-131.

Limiting Condition for Operation

1. Whenever an isotopic analysis shows reactor coolant activity exceeds 0.2 uCi/gram DOSE EQUIVALENT (D.E.) I-131, operation may continue for up to 48 hours. Additional analyses shall be done at least once per 4 hours until the specific activity of the primary coolant is restored to within its limit. The provisions of Specification 3.0.C.3 are applicable.
2. If the reactor coolant activity is greater than 0.2 microcuries per gram DOSE EQUIVALENT I-131 for more than 48 hours during one continuous time interval or greater than 4.0 microcuries per gram D.E. I-131, be in at least SHUTDOWN CONDITION within 12 hours. The provisions of Specification 3.0.C.3 are applicable.
3. Annual Reporting Requirement

The results of specific activity analyses in which the reactor coolant exceeded the limits of Specification 3.6.A shall be reported on an annual basis. The following information shall be included: (1) Reactor power history starting 48 hours prior to the first sample in which the limit was exceeded until after the radioiodine activity is reduced to less than the limit; (2) Results of the last isotopic analysis for radioiodine performed prior to exceeding the limit, results of analysis while limit was exceeded and results of one analysis after radioiodine activity was reduced to less than the limit. Each result should include date and time of sampling and the radioiodine concentrations; (3) Clean-up system flow history starting 48 hours prior to the first sample in which the limit was exceeded until after the radioiodine activity is reduce to less than the limit; (4) Graph of the I-131 concentration and one other radioiodine isotope concentration in microcuries per gram as a function of time for the duration of the specific activity above the steady-state level; and, (5) The time duration when specific activity of the primary coolant exceeded the radioiodine limit.

* If there are consecutive thermal power changes by more than 15% per hour, take sample and analyze at least one sample between 2 and 6 hours following the change and at least once per four hours thereafter, until the specific activity of the primary coolant is restored to within limits.

3.7 AUXILIARY ELECTRICAL POWER

Applicability: Applies to the OPERATING status of the auxiliary electrical power supply.

Objective: To assure the OPERABILITY of the auxiliary electrical power supply.

Specification:

NOTE: LCO 3.0.C.2 is not applicable to Auxiliary Electrical Power.

A. The reactor shall not be made critical unless all of the following requirements are satisfied:

1. The following buses or panels energized.

- a. 4160 volt buses 1C and 1D in the turbine building switchgear room.
- b. 460 volt buses 1A2, 1B2, 1A21, 1B21 vital MCC 1A2 and 1B2 in the reactor building switchgear room: 1A3 and 1B3 at the intake structure; 1A21A, 1B21A, 1A21B, and 1B21B and vital MCC 1AB2 on 23'6" elevation in the reactor building; 1A24 and 1B24 at the stack.
- c. 208/120 volt panels 3, 4, 4A, 4B, 4C and VACP-1 in the reactor building switchgear room.
- d. 120 volt protection panel 1 and 2 in the cable room.
- e. 125 volt DC distribution centers C and B, and panel D, Panel DC-F, isolation valve motor control center DC-1 and 125V DC motor control center DC-2.
- f. 24 volt D.C. power panels A and B in the cable room.

2. One 230 KV line is fully operational and switch gear and both startup transformers are energized to carry power to the station 4160 volt AC buses and carry power to or away from the plant.

3. An additional source of power consisting of one of the following is in service connected to feed the appropriate plant 4160 V bus or buses:

- a. A 69 KV line fully operational.
- b. A 34.5 KV line fully operational.

4. Station batteries B and C and an associated battery changer are OPERABLE. Switchgear control power for 4160 volt bus 1D and 460 volt buses 1B2 and 1B3 are provided by battery B. Switchgear control power for 4160 volt bus 1C and 460 volt buses 1A2 and 1A3 are provided by battery C.

5. Bus tie breakers ED and EC are in the open position.

B. The reactor shall be PLACED IN the COLD SHUTDOWN CONDITION if the availability of power falls below that required by Specification A above, except that

1. The reactor may remain in operation for a period

3.8 ISOLATION CONDENSER

Applicability: Applies to operating status of the isolation condenser.

Objective: To assure heat removal capability under conditions of reactor vessel isolation from its normal heat sink.

Specification:

NOTE: LCO 3.0.C.2 is not applicable to the Isolation Condenser.

- A. The two isolation condenser loops shall be operable during power operations and whenever the reactor coolant temperature is greater than 212°F except as specified in C, below or during reactor vessel pressure testing.
- B. The shell side of each condenser shall contain a minimum water volume of 22,730 gallons. If the minimum volume cannot be maintained or if a source of makeup water is not available to the condenser, the condenser shall be considered inoperable.
- C. If one isolation condenser becomes inoperable during the run mode the reactor may remain in operation for a period not to exceed 7 days provided the motor operated isolation and condensate makeup valves in the operable isolation condenser are verified daily to be operable.
- D. If Specification 3.8.A and 3.8.B are not met, or if an inoperable isolation condenser cannot be repaired within 7 days, the reactor shall be placed in the cold shutdown condition.
- E. If an isolation condenser inlet (steam side) isolation valve (V-14-30, 31, 32 or 33) becomes or is made inoperable, in the open position during the run mode, the redundant inlet isolation valve shall be verified operable. If the inoperable valve is not returned to service within 4 hours declare the affected isolation condenser inoperable, isolate it and comply with Specification 3.8.C.
- F. If an AC motor-operated isolation condenser outlet (condensate return) isolation valve (V-14-36 or 37) becomes or is made inoperable in the open position in the run mode, return the valve to service within 4 hours or declare the affected isolation condenser inoperable, isolate it and comply with Specification 3.8.C.

Basis: The purpose of the isolation condenser is to depressurize the reactor and to remove reactor decay heat in the event that the turbine generator and main condenser is unavailable as a heat sink⁽¹⁾ Since the shell side of the isolation condensers operate at atmospheric pressure, they can accomplish their purpose when the reactor temperature is sufficiently above 212°F to provide for the heat transfer corresponding to reactor decay heat. The tube side of the isolation condensers form a closed loop with the reactor vessel and can operate without reducing the reactor coolant water inventory.

Section 4 Surveillance Requirements

4.0 Surveillance Requirement Applicability

4.0.1 Surveillance requirements shall be met during the modes or other specified conditions in the applicability for individual LCOs, unless otherwise stated in the surveillance requirements. Failure to meet a surveillance, whether such failure is experienced during the performance of the surveillance or between performances of the surveillance, shall be failure to meet the LCO. Failure to perform a surveillance within the specified frequency shall be failure to meet the LCO except as provided in 4.0.2. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.

4.0.2 If it is discovered that a surveillance was not performed within its specified frequency, then compliance with the requirement to declare the LCO not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified frequency, whichever is greater. This delay period is permitted to allow performance of the surveillance. A risk evaluation shall be performed for any surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the surveillance is not performed within the delay period, the LCO must immediately be declared not met, and the applicable condition(s) must be entered.

When the surveillance is performed within the delay period and the surveillance is not met, the LCO must immediately be declared not met, and the applicable condition(s) must be entered.

4.0.3 Entry into an OPERATIONAL CONDITION or other specified condition in the Applicability of an LCO shall only be made when the LCO's Surveillances have been met within their specified frequency, except as provided by 4.0.2. When an LCO is not met due to surveillances not having been met, entry into an OPERATIONAL CONDITION or other specified condition in the Applicability shall only be made in accordance with LCO 3.0.C.

This provision shall not prevent entry into OPERATIONAL CONDITIONS or other specified conditions in the Applicability that are required to comply with LCO requirements or that are part of a shutdown of the unit.

BASES:

Surveillance Requirement 4.0.1 establishes the requirement that surveillance requirements must be met during the modes or other specified conditions in the applicability for which the requirements of the LCO apply, unless otherwise specified in the individual surveillance requirements. This specification is to ensure that surveillances are performed to verify the OPERABILITY of systems and components, and that variables are within specified limits. Failure to meet a surveillance within the specified frequency constitutes a failure to meet an LCO.

Systems and components are assumed to be OPERABLE when the associated surveillance requirements have been met. Nothing in this specification, however, is to be construed as implying that systems or components are OPERABLE when:

- a. The systems or components are known to be inoperable, although still meeting the surveillance requirements; or
- b. The requirements of the surveillance(s) are known to be not met between required surveillance performances.

Surveillances do not have to be performed when the unit is in a mode or other specified condition for which the requirements of the associated LCO are not applicable, unless otherwise specified.

Surveillances, including surveillances invoked by required actions, do not have to be performed on inoperable equipment because the actions define the remedial measures that apply. Surveillances have to be met and performed prior to returning equipment to OPERABLE status.

Upon completion of maintenance, appropriate post maintenance testing is required to declare equipment OPERABLE. This includes ensuring applicable surveillances are not failed. Post maintenance testing may not be possible in the current mode or other specified conditions in the applicability due to the necessary unit parameters not having been established. In these situations, the equipment may be considered OPERABLE provided testing has been satisfactorily completed to the extent possible and the equipment is not otherwise believed to be incapable of performing its function. This will allow operation to proceed to a mode or other specified condition where other necessary post maintenance tests can be completed.

Surveillance Requirement 4.0.2 establishes the flexibility to defer declaring affected equipment inoperable or an affected variable outside the specified limits when a surveillance has not been completed within the specified frequency. A delay period of up to 24 hours or up to the limit of the specified frequency, whichever is greater, applies from the point in time that it is discovered that the surveillance has not been performed in accordance with surveillance requirement 4.0.2 and not at the time that the specified frequency was not met.

This delay period provides adequate time to complete surveillances that have been missed. This delay period permits the completion of a surveillance before complying with required actions or other remedial measures that might preclude completion of the surveillance.

The basis for this delay period includes consideration of unit conditions, adequate planning, availability of personnel, the time required to perform the surveillance, the safety significance of the delay in completing the required surveillance, and the recognition that the most probable result of any particular surveillance being performed is the verification of conformance with the requirements.

When a surveillance with a frequency based not on time intervals, but upon specified unit conditions, operating situations, or requirements of regulations (e.g. prior to entering power operation after each fuel loading, or in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions, etc.) is discovered to not have been performed when specified, Surveillance Requirement 4.0.2 allows for the full delay period of up to the specified frequency to perform the surveillance. However, since there is not a time interval specified, the missed surveillance should be performed at the first reasonable opportunity. Surveillance requirement 4.0.2 provides a time limit for, and allowances for the performance of, surveillances that become applicable as a consequence of mode changes imposed by required actions.

Failure to comply with specified surveillance frequencies is expected to be an infrequent occurrence. Use of the delay period established by Surveillance Requirement 4.0.2 is a flexibility which is not intended to be used as an operational convenience to extend surveillance intervals. While up to 24 hours or the limit of the specified frequency is provided to perform the missed surveillance, it is expected that the missed surveillance will be performed at the first reasonable opportunity. The determination of the first reasonable opportunity should include consideration of the impact on plant risk (from delaying the surveillance as well as any plant configuration changes required or shutting the plant down to perform the surveillance) and impact on any analysis assumptions, in addition to unit conditions, planning, availability of personnel, and the time required to perform the surveillance. This risk impact should be managed through the program in place to implement 10 CFR 50.65 (a)(4) and its implementation guidance, NRC Regulatory Guide 1.182, 'Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants.' This Regulatory Guide addresses consideration of temporary and aggregate risk impacts, determination of risk management thresholds, and risk management action up to and including plant shutdown. The missed surveillance should be treated as an emergent condition as discussed in the Regulatory Guide. The risk evaluation may use quantitative, qualitative, or blended methods. The degree of depth and rigor of the evaluation should be commensurate with the importance of the component. Missed surveillances for important components should be analyzed quantitatively. If the results of the evaluation determine the risk increase is significant, this evaluation should be used to determine the safest course of action. All missed surveillances will be placed in the licensee's Corrective Action Program.

If a surveillance is not completed within the allowed delay period, then the equipment is considered inoperable or the variable is considered outside the specified limits and the completion times of the required actions for the applicable LCO conditions begin immediately upon expiration of the delay period. If a surveillance is failed within the delay period, then the equipment is inoperable, or the variable is outside the specified limits and the completion times of the required actions for the applicable LCO conditions begin immediately upon the failure of the surveillance.

Completion of the surveillance within the delay period allowed by this specification, or within the completion time of the actions, restores compliance with Surveillance Requirement 4.0.1.

Specification 4.0.3 establishes the requirement that all applicable Surveillance Requirements (SRs) must be met before entry into an OPERATIONAL CONDITION or other specified condition in the Applicability.

This Specification ensures that system and component OPERABILITY requirements and variable limits are met before entry into OPERATIONAL CONDITIONS or other specified conditions in the Applicability for which these systems and components ensure safe operation of the unit. The provisions of this Specification should not be interpreted as endorsing the failure to exercise the good practice of restoring systems or components to OPERABLE status before entering an associated OPERATIONAL CONDITION or other specified condition in the Applicability.

A provision is included to allow entry into an OPERATIONAL CONDITION or other specified condition in the Applicability when a Limiting Condition for Operation is not met due to a Surveillance not being met in accordance with Specification 3.0.C.

However, in certain circumstances, failing to meet a Surveillance Requirement will not result in Specification 4.0.3 restricting an OPERATIONAL CONDITION change or other specified condition change. When a system, subsystem, division, component, device, or variable is inoperable or outside its specified limits, the associated SR(s) are not required to be performed, per Specification 4.0.1, which states that surveillances do not have to be performed on inoperable equipment. When equipment is inoperable, Specification 4.0.3 does not apply to the associated SR(s) since the requirement for the SR(s) to be performed is removed. Therefore, failing to perform the Surveillance(s) within the specified Surveillance time interval does not result in a Specification 4.0.3 restriction to changing OPERATIONAL CONDITIONS or other specified conditions of the Applicability. However, since the Limiting Condition for Operation is not met in this instance, Specification 3.0.C will govern any restrictions that may (or may not) apply to OPERATIONAL CONDITION or other specified condition changes. Specification 4.0.3 does not restrict changing OPERATIONAL CONDITIONS or other specified conditions of the Applicability when a Surveillance has not been performed within the specified Surveillance time interval, provided the requirement to declare the Limiting Condition for Operation not met has been delayed in accordance with Specification 4.0.2.

The provisions of Specification 4.0.3 shall not prevent entry into OPERATIONAL CONDITIONS or other specified conditions in the Applicability that are required to comply with LCO requirements. In addition, the provisions of Specification 4.0.3 shall not prevent changes in OPERATIONAL CONDITIONS or other specified conditions in the Applicability that result from any unit shutdown. In this context, a unit shutdown is defined as a change in OPERATIONAL CONDITION or other specified condition in the Applicability associated with transitioning from POWER OPERATION to STARTUP MODE, STARTUP MODE to SHUTDOWN CONDITION, and SHUTDOWN CONDITION to COLD SHUTDOWN CONDITION.