



Portland General Electric Company

James E. Cross
Vice President and Chief Nuclear Officer

March 16, 1993

Trojan Nuclear Plant
Docket 50-344
License NPF-1

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

Dear Sirs:

Operational Requirements for the
Permanently Defueled Condition at Trojan Nuclear Plant

The purpose of this correspondence is to transmit Portland General Electric's Operational Requirements for the Permanently Defueled Condition (attached). This report provides a listing of Trojan Technical Specifications and delineates their applicability to the defueled condition. In addition, this report provides a brief discussion of additional administrative controls that have been established to support the permanently defueled condition.

Portland General Electric will continue to comply with the Technical Specifications and administrative controls described in this report until such time as permanently defueled Technical Specifications are approved.

If you have any questions regarding the contents of this report, please contact me, or Tom Walt of my staff.

Sincerely,

T. D. Walt
for J. E. Cross

Attachment

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ADD 1/1

c: Mr. John B. Martin
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U. S. Nuclear Regulatory Commission

Mr. David Stewart-Smith
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Mr. Kenneth Johnston
NRC Resident Inspector
Trojan Nuclear Plant

OPERATIONAL REQUIREMENTS FOR THE DEFUELED CONDITION

I. ABSTRACT

This report is a consolidated listing of Technical Specifications that remain applicable in the defueled condition, i. e., no fuel assemblies in the containment building. Additional administrative requirements are also delineated in this report.

II. INTRODUCTION

The purpose of this document is to identify the operational requirements for the defueled condition. This document is also intended to provide a description of the philosophy used for establishing these operational requirements. It is intended that this document provide a consolidation of existing requirements only. It is not intended to supersede or modify any existing regulatory or management-directed requirements.

The requirements contained herein are applicable during the period while the plant is in the defueled condition and until Permanently Defueled Technical Specifications have been approved.

III. REFERENCES

1. NUMARC 92-02, "Regulatory Process for Decommissioning Prematurely Shutdown Plants"
2. Trojan Plant Procedure TPP 30-1, "Nuclear Division Defueled Requirements and Defueled Systems List"
3. Licensing Document Interpretation 92-07

IV. BACKGROUND

Since Trojan is permanently shutdown, systems have been categorized as to whether they are required Operable, Available, Prudent, or Not Required to support the defueled condition. The purpose of this categorization was to assist affected departments in prioritizing corrective maintenance, preventative maintenance, or surveillance activities.

The four categories were defined as follows:

1. Operable - The term "operable" applies to systems that are required by the Trojan Technical Specifications to be operable. A system, subsystem, train, component or device shall be operable or have operability when it is capable or performing its specified function(s). Implicit in this definition shall be the assumption that all necessary attendant instrumentation, controls,

normal and emergency electric power sources, cooling or seal water, lubrication or other auxiliary equipment that are required for the system, subsystem, train, component or device to perform its function(s) are also capable of performing their rated support function(s). Nonessential portions of a system, subsystem, train component, or device need not be operational as long as its lack of operational capability does not in any way degrade the function(s) of the system, subsystem, train, component, or device.

2. Available - The term "available" applies to systems that are not required to be operable by Technical Specifications. These components fit into two general subcategories: (1) a component or system which supports the normal function of a Trojan Technical Specification System, or (2) a component or system essential to support the Emergency Plan, Fire Protection Plan, Security Plan, or other license conditions. A component or system is considered to be available when: (1) it has been appropriately tested or maintained by appropriate procedures, (2) its required auxiliaries are capable of performing their function, and (3) it has an available power source.
3. Prudent to Operate - The term "prudent to operate" applies to systems that are not in Trojan Technical Specifications and are not support systems to Trojan Technical Specification systems. A component or system in this category provides a plant support function that is not required for operable or available equipment but is desirable to operate to facilitate work being performed on site, or for personnel safety. A component or system in this category is afforded normal maintenance and administrative controls.
4. Not Required - A component in a system that is deemed not required to support the defueled condition. A component in this category shall have no work or testing requirements with the exception of that necessary for proper lay up or plant safety concerns.

In conjunction with this effort, it was considered prudent to develop a consolidated listing of applicable Technical Specifications. Current Technical Specifications define Modes 1 through 6, but do not explicitly recognize the defueled condition. The development and utilization of this list will aid consistent application of Technical Specifications in the permanently defueled condition. The table provided as an appendix to this document lists the Technical Specifications and their applicability in the defueled condition.

V. GENERAL REQUIREMENTS

Compliance with the Technical Specifications applicable in the defueled condition will be maintained. The table attached to this document identifies the Technical Specifications that are applicable in the defueled condition.

Surveillance Requirements associated with the applicable Technical Specifications will be implemented, except as described in Section C below. Surveillances will not be performed on inoperable equipment as permitted by Technical Specifications 4.0.1 and 4.0.3.

A. Determination of Applicability

Trojan Technical Specifications that are applicable to the permanently defueled condition include:

1. Technical Specifications contained in Section 1 -Definitions; Section 5 - Design Features; and Section 6 -Administrative Controls.
2. Technical Specifications contained in Sections 3.0 -Limiting Conditions for Operation (with the exception of Technical Specifications 3.0.3 and 3.0.5) and Section 4.0 - Surveillance Requirements, with:
 - a. Limiting Conditions for Operation with an Applicability of "At all times".
 - b. Certain Limiting Conditions for Operation with an Applicability of "All modes" or "Modes 1 - 6" when it was determined that the intended applicability was "at all times".
 - c. Limiting Conditions for Operation which are conditionally applicable. Examples in this category include those applicable "During releases via this pathway" or "When affected equipment is required to be operable".

B. Discussion of Non-applicability

The table attached to this document contains the basis for the determination of non-applicability for the Technical Specifications that were determined non-applicable to the defueled condition. An example of a Technical Specification in this category is Technical Specification 3.0.3. Existing Technical Specification 3.0.3 states that "This Specification is not applicable in Modes 5 or 6".

The basis for Technical Specification 3.0.3 states that the purpose is to delineate the time limits for placing the unit in a safe shutdown Mode when plant operation cannot be maintained within the limits for safe operation. Because the plant will not resume operation, this specification is not needed. Similarly, the Safety Limits and Limiting Safety System Settings contained in Section 2 of the Technical Specifications are not applicable in the permanently defueled condition, as these requirements apply to operation of the reactor.

C. Additional Surveillance Requirement Information

There are several Technical Specifications which are applicable at all times which contain Surveillance Requirements that are not necessary to support the permanently defueled condition. These will be discussed separately:

1. Technical Specification 3.4.7, Reactor Coolant System Chemistry, states that the Reactor Coolant System chemistry is to be maintained within specified limits for Dissolved Oxygen, Chloride, and Fluoride. The associated Surveillance Requirement requires analysis of Chloride and Fluoride at a minimum frequency of 3 times per 7 days with a maximum time between samples of 72 hours. The basis for this requirement states that the limitations on Reactor Coolant System chemistry ensure that corrosion is minimized and reduce the potential for leakage or failure due to stress corrosion. The purpose of the surveillance requirement is to provide assurance that concentrations in excess of the limits will be detected in sufficient time to take corrective action.

Because the Reactor Coolant System will not be used again at elevated temperatures and pressures, failure due to stress corrosion is no longer a significant safety concern. Therefore, this Surveillance Requirement will not be performed and the Action, which requires, in part, determination that the Reactor Coolant System is acceptable for continued operations prior to increasing pressure above 500 psig or prior to proceeding to Mode 4 will be imposed.

2. Technical Specification 3.7.2.1, Steam Generator Pressure/Temperature Limitation, requires the temperatures of both the primary and secondary coolants in the steam generators to be >70 degrees Fahrenheit when the pressure of either coolant in the steam generators is >200 psig. The associated Surveillance Requirement requires that the pressure in each side of the steam generators be determined to be <200 psig at least once per hour when the temperature of either the primary or secondary coolant in the steam generator is <70 degrees Fahrenheit. This limitation ensures that the pressure induced stresses in the steam generators do not exceed the maximum allowable fracture toughness stress limits.

Currently, a pressurizer safety is removed, thus ensuring that the primary side of the steam generator will remain at atmospheric pressure. This Surveillance Requirement will not be performed and the Action, which requires, in part, a determination that the steam generator remains acceptable for continued operation prior to increasing its temperatures above 200 degrees Fahrenheit, will be imposed.

3. Technical Specification 3.4.9.1, Pressure/Temperature Limits - Reactor Coolant System, states that the Reactor Coolant System temperature and pressure shall be limited in accordance with the limit lines contained in the Technical Specifications during heatup, cooldown, criticality, and inservice leak and hydrostatic testing. The associated Surveillance Requirements require, in part, that the Reactor Coolant System temperature and pressure be determined to be within the limits at least once per hour during system heatup and cooldown. In the defueled condition, fluctuations in Reactor Coolant System temperature are anticipated due to changes in ambient conditions. These minor fluctuations in temperature are not considered to be heatups or cooldowns and therefore the limit lines contained in Figure 3.4-2 are not applicable under these conditions. These minor fluctuations will not be recorded once per hour.
4. Technical Specification 3.4.9.2, Pressurizer, specifies that the pressurizer temperature be limited to a maximum heatup of 100 degrees in any one hour period, a maximum cooldown of 200 degrees in any one hour, and a maximum spray water temperature differential of 320 degrees. The associated Surveillance Requirement requires, in part, that the pressurizer temperature be determined to be within the limits at least once per hour during system heatup or cooldown. In the defueled condition, temperature changes in the pressurizer are anticipated because of changes in ambient conditions. These minor fluctuations in temperature are not considered to be heatups or cooldowns and therefore will not be recorded once per hour.

VI. ADDITIONAL ADMINISTRATIVE CONTROLS

Compliance will be maintained with several Technical Specifications beyond those which are explicitly required. The table attached to this document specifies the source of the requirement for compliance with Technical Specifications in this category. These additional administrative controls include:

1. The Seismic Category I Service Water System makeup water path to the Spent Fuel Pool will be maintained operable.
2. One train of Service Water will be maintained operable and capable of providing cooling

to the operable Emergency Diesel Generator and capable of supplying makeup to the Spent Fuel Pool. It shall also be capable of being powered from the operable Emergency Diesel Generator.

3. The Control Room Emergency Ventilation System will be maintained operable in accordance with Technical Specification 3.7.6.1, with the exception of one surveillance requirement. The associated Surveillance Requirements specify, in part, that the system be demonstrated operable by verifying that on a Safety Injection Signal, the control room normal air conditioning system stops and isolation dampers close to automatically isolate the control room, that the water sampling laboratory exhaust, toilet and lunch room exhaust, Control Building supply, mechanical room exhaust, and Control Building air conditioning supply systems stop, and that the control room emergency ventilation system automatically starts. This Surveillance will not be performed because the Safety Injection actuation circuitry will not be maintained as allowed by Technical Specification 3.3.2. One train of the systems required to provide support functions such as power and cooling will be maintained operable. The related subsystems of chlorine detection and sulfur dioxide detection will also be maintained operable.
4. Electrical Distribution Systems are to be maintained operable in support of the equipment required to be maintained operable. This includes one offsite transmission circuit and one Emergency Diesel Generator Circuit (as the necessary attendant power source) as defined in Technical Specification 3.8.1.2. Technical Specification 3.8.1.2 contains a requirement to perform surveillance testing in accordance with Surveillance Requirement 4.8.1.1.2, which requires, in part, simulating a loss of offsite power with and without the presence of a safety injection signal, and verifying:
 1. De-energization of the emergency busses and load shedding from the emergency busses
 2. That the diesels start from ambient conditions on the auto start signal and energize the emergency busses, and
 3. That the non-emergency diesel generator trips are bypassed on an automatic start signal.

These surveillance requirements verify the availability of automatic start and load features of the emergency diesel generator units. The load shedders and sequencers are designed to sequence on key Engineered Safety Features loads in the event of a loss of offsite power with or without a concurrent Safety Injection Signal. This function is only needed in Modes 1 - 4. The availability of these automatic start features of the emergency diesel generator units is not considered necessary to support the defueled condition. Therefore, surveillances related to the automatic start and load features of the diesel generator units will not be performed.

VII. ADDITIONAL INFORMATION

1. Inservice inspection and testing for ASME Code Class 1, 2, and 3 components will be governed by the inservice inspection and testing program.
2. Performance of snubber surveillances will be governed by the snubber surveillance program.

VIII. SUMMARY

This document contains a summary of the operational requirements for the defueled condition, including Technical Specification requirements and self-imposed administrative requirements. For those Technical Specifications that are no longer considered applicable, a summary of the basis for non-applicability is included.

TTS Applicability While Defueled

Appendix

Technical Specification	Title	LCO Applicability
1.0	DEFINITIONS	All definitions are applicable.
2.0	SAFETY LIMITS AND LIMITING SAFETY SETTINGS	Not Applicable. The Safety Limits and Limiting Safety System Settings are only applicable in Modes 1,2,3,4,5.
3.0.1	LIMITING CONDITIONS FOR OPERATION	Applicable.
3.0.2	LIMITING CONDITIONS FOR OPERATION	Applicable.
3.0.3	LIMITING CONDITIONS FOR OPERATION	Not Applicable.
3.0.4	LIMITING CONDITIONS FOR OPERATION	Applicable.
3.0.5	LIMITING CONDITIONS FOR OPERATION	Not Applicable. Applicable only in Modes 1 - 4.
3.1.1.1	REACTIVITY CONTROL SYSTEMS - BORATION CONTROL - SHUTDOWN MARGIN	Not Applicable. Applicable only in Modes 1,2,3.
3.1.1.2	REACTIVITY CONTROL SYSTEMS - BORATION CONTROL - SHUTDOWN MARGIN - $T_{avg} \leq 350$	Not Applicable. Applicable only in Modes 4,5.

TTS Applicability While Defueled

Appendix

Technical Specification	Title	LCO Applicability
1.0	DEFINITIONS	All definitions are applicable.
2.0	SAFETY LIMITS AND LIMITING SAFETY SETTINGS	Not Applicable. The Safety Limits and Limiting Safety System Settings are only applicable in Modes 1,2,3,4,5.
3.0.1	LIMITING CONDITIONS FOR OPERATION	Applicable.
3.0.2	LIMITING CONDITIONS FOR OPERATION	Applicable.
3.0.3	LIMITING CONDITIONS FOR OPERATION	Not Applicable.
3.0.4	LIMITING CONDITIONS FOR OPERATION	Applicable.
3.0.5	LIMITING CONDITIONS FOR OPERATION	Not Applicable. Applicable only in Modes 1 - 4.
3.1.1.1	REACTIVITY CONTROL SYSTEMS - BORATION CONTROL - SHUTDOWN MARGIN	Not Applicable. Applicable only in Modes 1,2,3.
3.1.1.2	REACTIVITY CONTROL SYSTEMS - BORATION CONTROL - SHUTDOWN MARGIN - Tavg \leq 350	Not Applicable. Applicable only in Modes 4,5.

Appendix

Technical Specification	Title	LCO Applicability
3.1.1.3	REACTIVITY CONTROL SYSTEMS - BORATION CONTROL - BORON DILUTION	Not Applicable. Applicable only in Modes 1,2,3,4,5,6. This Specification ensures adequate mixing, prevents stratification, and ensures gradual reactivity changes during boron concentration reductions in the Reactor Coolant System. With no fuel assemblies in the vessel, it is not necessary to ensure the reactivity change rate associated with boron reductions are within the capability for operator recognition and control.
3.1.1.4	REACTIVITY CONTROL SYSTEMS - BORATION CONTROL - MODERATOR TEMPERATURE COEFFICIENT	Not Applicable. Applicable only in Modes 1,2.
3.1.1.5	REACTIVITY CONTROL SYSTEMS - BORATION CONTROL MINIMUM TEMPERATURE FOR CRITICALITY	Not Applicable. Applicable only in Modes 1,2.
3.1.2.1	REACTIVITY CONTROL SYSTEMS - BORATION SYSTEMS - FLOW PATHS - SHUTDOWN	Not Applicable. Applicable only in Modes 5,6. This Specification ensures that negative reactivity control is available. With no fuel assemblies in the vessel, this is no longer a concern.
3.1.2.2	REACTIVITY CONTROL SYSTEMS - BORATION SYSTEMS - FLOW PATHS - OPERATING	Not Applicable. Applicable only in Modes 1,2,3,4.
3.1.2.3	REACTIVITY CONTROL SYSTEMS - BORATION SYSTEMS - CHARGING PUMP - SHUTDOWN	Not Applicable. Applicable only in Modes 5,6. This Specification ensures a flow path for boron injection. With no fuel assemblies in the vessel, a path for boron injection is no longer necessary.

Appendix

Technical Specification	Title	LCO Applicability
3.1.2.4	REACTIVITY CONTROL SYSTEMS - BORATION SYSTEMS - CHARGING PUMPS - OPERATING	Not Applicable. Applicable only in Modes 1,2,3,4.
3.1.2.5	REACTIVITY CONTROL SYSTEMS - BORATION SYSTEMS -BORIC ACID TRANSFER PUMPS - SHUTDOWN	Not Applicable. Applicable only in Modes 5,6. This Specification ensures a flow path for boron injection. With no fuel assemblies in the vessel, a path for boron injection is no longer necessary.
3.1.2.6	REACTIVITY CONTROL SYSTEMS - BORATION SYSTEMS - BORIC ACID TRANSFER PUMPS - OPERATING	Not Applicable. Applicable only in Modes 1,2,3,4.
3.1.2.7	REACTIVITY CONTROL SYSTEMS - BORATION SYSTEMS - BORATED WATER SOURCES - SHUTDOWN	Not Applicable. Applicable only in Modes 5,6. This Specification ensures the availability of borated water for shutdown conditions in the Reactor Coolant System. With no fuel assemblies in the vessel, assurance of sufficient boron inventory is no longer needed.
3.1.2.8	REACTIVITY CONTROL SYSTEMS - BORATION SYSTEMS - BORATED WATER SOURCES - OPERATING	Not Applicable. Applicable only in Modes 1,2,3,4.
3.1.3.1	REACTIVITY CONTROL SYSTEMS - MOVABLE CONTROL ASSEMBLIES - GROUP HEIGHT	Not Applicable. Applicable only in Modes 1,2.

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Technical Specification	Title	LCO Applicability
3.1.3.2	REACTIVITY CONTROL SYSTEMS - MOVABLE CONTROL ASSEMBLIES - POSITION INDICATOR CHANNELS	Not Applicable. Applicable only in Modes 1,2.
3.1.3.3	REACTIVITY CONTROL SYSTEMS - MOVABLE ASSEMBLIES - ROD DROP TIME	Not Applicable. Applicable only in Modes 1,2.
3.1.3.4	REACTIVITY CONTROL SYSTEMS - MOVABLE ASSEMBLIES - SHUTDOWN ROD INSERTION LIMITS	Not Applicable. Applicable only in Modes 1,2.
3.1.3.5	REACTIVITY CONTROL SYSTEMS - MOVABLE ASSEMBLIES - CONTROL ROD INSERTION LIMITS	Not Applicable. Applicable only in Modes 1,2.
3.2.1	POWER DISTRIBUTION LIMITS - AXIAL FLUX DIFFERENCE (AFD)	Not Applicable. Applicable only in Mode 1.
3.2.2	POWER DISTRIBUTION LIMITS - HEAT FLUX HOT CHANNEL FACTOR - FQ(X,Y,Z)	Not Applicable. Applicable only in Mode 1.
3.2.3	POWER DISTRIBUTION LIMITS - NUCLEAR ENTHALPY RISE HOT CHANNEL FACTOR - FdH(X,Y)	Not Applicable. Applicable only in Mode 1.
3.2.4	POWER DISTRIBUTION LIMITS - QUADRANT POWER TILT RATIO	Not Applicable. Applicable only in Mode 1.

Appendix

Technical Specification	Title	LCO Applicability
3.2.5	POWER DISTRIBUTION LIMITS - DNB PARAMETERS	Not Applicable. Applicable only in Mode 1.
3.3.1	INSTRUMENTATION - REACTOR TRIP SYSTEM INSTRUMENTATION	Not Applicable. Applicable only in Modes 1,2,3,4 and 5 as shown in Table 3.3-1.
3.3.2	INSTRUMENTATION - ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION	Not Applicable. Applicable only in Modes 1,2,3 and 4 as shown in Table 3.3-3.
3.3.3.1	INSTRUMENTATION - RADIATION MONITORING INSTRUMENTATION	Applicable. Fuel Storage Pool Area Radiation Monitors are required with fuel in the storage pool or building. Containment High Range Area Radiation Monitors are only required in Modes 1-4.
3.3.3.2	INSTRUMENTATION - MOVABLE INCORE DETECTORS	Not Applicable. Applicable only when the movable incore detection system is used for recalibration of the axial flux offset detection system, monitoring the quadrant power tilt ratio, measurement of Fdelta H and FQ.
3.3.3.3	INSTRUMENTATION - SEISMIC INSTRUMENTATION	Applicable.
3.3.3.4	INSTRUMENTATION - METEOROLOGICAL INSTRUMENTATION	Applicable.
3.3.3.5	INSTRUMENTATION - REMOTE SHUTDOWN INSTRUMENTATION	Not Applicable. Applicable only in Modes 1,2,3.

Appendix

Technical Specification	Title	LCO Applicability
3.3.3.6	INSTRUMENTATION - CHLORINE DETECTION SYSTEMS	Applicable. Although the applicability stated in the Limiting Condition for Operation is all Modes, this specification is being administratively applied to the defueled condition.
3.3.3.7	INSTRUMENTATION - FIRE PROTECTION INSTRUMENTATION	Applicable to protect systems and components required to be OPERABLE when defueled.
3.3.3.8	INSTRUMENTATION - DECOUPLE SWITCHES	Applicable for the systems and components required to be OPERABLE when defueled.
3.3.3.9	INSTRUMENTATION - ACCIDENT MONITORING INSTRUMENTATION	Not Applicable. Applicable only in Modes 1,2,3.
3.3.3.10	INSTRUMENTATION - RADIOACTIVE LIQUID EFFLUENT INSTRUMENTATION	Applicable.
3.3.3.11	INSTRUMENTATION - RADIOACTIVE GASEOUS PROCESS AND EFFLUENT MONITORING INSTRUMENTATION	Applicable.
3.3.3.12	INSTRUMENTATION - SO ₂ DETECTION SYSTEMS	Applicable. Although the applicability stated in the Limiting Condition for Operation is Modes 1,2,3,4, this specification is being administratively applied to the defueled condition.
3.4.1.1	REACTOR COOLANT SYSTEM - REACTOR COOLANT LOOPS - NORMAL OPERATION	Not Applicable. Applicable only in Modes 1 and 2.

Appendix

Technical Specification	Title	LCO Applicability
3.4.1.2	REACTOR COOLANT SYSTEM - REACTOR COOLANT LOOPS - HOT STANDBY	Not Applicable. Applicable only in Mode 3.
3.4.1.3	REACTOR COOLANT SYSTEM - REACTOR COOLANT LOOPS - SHUTDOWN	Not Applicable. Applicable only in Modes 4,5.
3.4.1.4	REACTOR COOLANT SYSTEM - REACTOR COOLANT LOOPS - NORMAL OPERATION	Not Applicable. Applicable only in Modes 4, 5.
3.4.2	REACTOR COOLANT SYSTEM - SAFETY VALVES - SHUTDOWN	Not Applicable. Applicable only in Modes 4,5.
3.4.3.1	REACTOR COOLANT SYSTEM - SAFETY AND RELIEF VALVES - OPERATING - SAFETY VALVES	Not Applicable. Applicable only in Modes 1,2,3.
3.4.3.2	REACTOR COOLANT SYSTEM - SAFETY AND RELIEF VALVES - OPERATING - RELIEF VALVES	Not Applicable. Applicable only in Modes 1,2,3.
3.4.4	REACTOR COOLANT SYSTEM - PRESSURIZER	Not Applicable. Applicable only in Modes 1,2,3.
3.4.5	REACTOR COOLANT SYSTEM - STEAM GENERATORS	Not Applicable. Applicable only in Modes 1,2,3,4.

Appendix

Technical Specification	Title	LCO Applicability
3.4.6.1	REACTOR COOLANT SYSTEM - REACTOR COOLANT SYSTEM LEAKAGE - LEAKAGE DETECTION SYSTEMS	Not Applicable. Applicable only in Modes 1,2,3,4.
3.4.6.2	REACTOR COOLANT SYSTEM - REACTOR COOLANT SYSTEM LEAKAGE - OPERATIONAL LEAKAGE	Not Applicable. Applicable only in Modes 1,2,3,4.
3.4.7	REACTOR COOLANT SYSTEM - CHEMISTRY	Applicable. (See discussion in Section V.C.)
3.4.8	REACTOR COOLANT SYSTEM - SPECIFIC ACTIVITY	Not Applicable. Applicable only in Modes 1,2,3,4,5.
3.4.9.1	REACTOR COOLANT SYSTEM - PRESSURE/ TEMPERATURE LIMITS - REACTOR COOLANT SYSTEM	Applicable. (See discussion in Section V.C.)
3.4.9.2	REACTOR COOLANT SYSTEM - PRESSURE/ TEMPERATURE LIMITS - PRESSURIZER	Applicable. (See discussion in Section V.C.)
3.4.9.3	REACTOR COOLANT SYSTEM - PRESSURE/ TEMPERATURE LIMITS - OVERPRESSURE PROTECTION SYSTEMS	Applicable. Although the applicability stated in the Limiting Condition for Operation is Modes 4,5,6, this specification is being administratively applied to the defueled condition.

Appendix

Technical Specification	Title	LCO Applicability
3.4.10.1	REACTOR COOLANT SYSTEM - STRUCTURAL INTEGRITY - ASME CODE CLASS 1, 2, AND 3 COMPONENTS	Not Applicable. Applicable only in Modes 1,2,3,4,5,6. (Inspection of Class 1, 2, and 3 components is required by Specification 4.0.5.)
3.4.11	REACTOR COOLANT SYSTEM - REACTOR VESSEL HEAD VENT VALVES	Not Applicable. Applicable only in Modes 1,2,3.
3.5.1	EMERGENCY CORE COOLING SYSTEMS (ECCS) - ACCUMULATORS	Not Applicable. Applicable only in Modes 1,2,3.
3.5.2	EMERGENCY CORE COOLING SYSTEMS (ECCS) - ECCS SUBSYSTEMS - Tavg >= 350F	Not Applicable. Applicable only in Modes 1,2,3.
3.5.3.1	EMERGENCY CORE COOLING SYSTEMS (ECCS) - ECCS SUBSYSTEMS - Tavg <= 350F	Not Applicable. Applicable only in Mode 4.
3.5.3.2	EMERGENCY CORE COOLING SYSTEMS (ECCS) - ECCS SUBSYSTEMS - Tavg < 350	Not Applicable. Applicable only in Mode 4 with the temperature of any cold leg <= 290; Mode 5, or Mode 6 with the Reactor Vessel Head on. This Specification ensures a mass addition transient can be relieved by a single Power Operated Relief Valve. This is not a concern with a safety removed.
3.5.4	DELETED	DELETED.
3.5.5	EMERGENCY CORE COOLING SYSTEMS (ECCS) - REFUELING WATER STORAGE TANK	Not Applicable. Applicable only in Modes 1,2,3,4.

Appendix

Technical Specification	Title	LCO Applicability
3.6.1.1	CONTAINMENT SYSTEMS - PRIMARY CONTAINMENT - CONTAINMENT INTEGRITY	Not Applicable. Applicable only in Modes 1,2,3,4.
3.6.1.2	CONTAINMENT SYSTEMS - PRIMARY CONTAINMENT - CONTAINMENT LEAKAGE	Not Applicable. Applicable only in Modes 1,2,3,4.
3.6.1.3	CONTAINMENT SYSTEMS - PRIMARY CONTAINMENT - CONTAINMENT AIR LOCKS	Not Applicable. Applicable only in Modes 1,2,3,4.
3.6.1.4	CONTAINMENT SYSTEMS - PRIMARY CONTAINMENT - INTERNAL PRESSURE	Not Applicable. Applicable only in Modes 1,2,3,4.
3.6.1.5	CONTAINMENT SYSTEMS - PRIMARY CONTAINMENT - AIR TEMPERATURE	Not Applicable. Applicable only in Modes 1,2,3,4.
3.6.1.6	CONTAINMENT SYSTEMS - PRIMARY CONTAINMENT - CONTAINMENT STRUCTURAL INTEGRITY	Not Applicable. Applicable only in Modes 1,2,3,4.
3.6.2.1	CONTAINMENT SYSTEMS - DEPRESSURIZATION AND COOLING SYSTEMS - CONTAINMENT SPRAY SYSTEM	Not Applicable. Applicable only in Modes 1,2,3,4.
3.6.2.2	CONTAINMENT SYSTEMS - DEPRESSURIZATION AND COOLING SYSTEMS - SPRAY ADDITIVE SYSTEM	Not Applicable. Applicable only in Modes 1,2,3,4.

Appendix

Technical Specification	Title	LCO Applicability
3.6.2.3	CONTAINMENT SYSTEMS - DEPRESSURIZATION AND COOLING SYSTEMS - CONTAINMENT COOLING SYSTEM	Not Applicable. Applicable only in Modes 1,2, and 3.
3.6.3.1	CONTAINMENT SYSTEMS - CONTAINMENT ISOLATION VALVES	Not Applicable. Applicable only in Modes 1,2,3,4.
3.6.4.1	CONTAINMENT SYSTEMS - COMBUSTIBLE GAS CONTROL - HYDROGEN ANALYZERS	Not Applicable. Applicable only in Modes 1 and 2.
3.6.4.2	CONTAINMENT SYSTEMS - COMBUSTIBLE GAS CONTROL - ELECTRIC HYDROGEN RECOMBINERS	Not Applicable. Applicable only in Modes 1 and 2.
3.6.4.3	CONTAINMENT SYSTEMS - COMBUSTIBLE GAS CONTROL - HYDROGEN VENT SYSTEM	Not Applicable. Applicable only in Modes 1 and 2.
3.6.4.4	CONTAINMENT SYSTEMS - COMBUSTIBLE GAS CONTROL - HYDROGEN MIXING SYSTEM	Not Applicable. Applicable only in Modes 1 and 2.
3.7.1.1	PLANT SYSTEMS - TURBINE CYCLE - SAFETY VALVES	Not Applicable. Applicable only in Modes 1,2,3.
3.7.1.2	PLANT SYSTEMS - TURBINE CYCLE - AUXILIARY FEEDWATER SYSTEM	Not Applicable. Applicable only in Modes 1,2,3.

Appendix

Technical Specification	Title	LCO Applicability
3.7.1.4	PLANT SYSTEMS - TURBINE CYCLE - CONDENSATE STORAGE TANK	Not Applicable. Applicable only in Modes 1,2,3.
3.7.1.5	PLANT SYSTEMS - TURBINE CYCLE - ACTIVITY	Not Applicable. Applicable only in Modes 1,2,3,4.
3.7.1.6	PLANT SYSTEMS - TURBINE CYCLE - MAIN STEAM LINE ISOLATION VALVES	Not Applicable. Applicable only in Modes 1,2,3.
3.7.2.1	PLANT SYSTEMS - STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION	Applicable. (See discussion in Section V.C.)
3.7.3.1	PLANT SYSTEMS - COMPONENT COOLING WATER SYSTEM	Not Applicable. Applicable only in Modes 1,2,3,4.
3.7.3.2	PLANT SYSTEMS - COMPONENT COOLING WATER SYSTEM	Not Applicable. Applicable only in Modes 5,6.
3.7.4.1	PLANT SYSTEMS - SERVICE WATER SYSTEM	Not Applicable. Applicable only in Modes 1,2,3,4.
3.7.4.2	PLANT SYSTEMS - SERVICE WATER SYSTEM	Applicable. Although the applicability stated in the Limiting Condition for Operation is Modes 5 and 6, this specification is being administratively applied to the defueled condition.
3.7.5.1	PLANT SYSTEMS - ULTIMATE HEAT SINK	Not Applicable. Applicable only in Modes 1,2,3,4.

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Technical Specification	Title	LCO Applicability
3.7.6.1	PLANT SYSTEMS - CONTROL ROOM EMERGENCY VENTILATION SYSTEM	Applicable. Although the applicability stated in the Limiting Condition for Operation is in all Modes, this specification is being administratively applied to the defueled condition.
3.7.7.1	PLANT SYSTEMS - SEALED SOURCE CONTAMINATION	Applicable.
3.7.8.1	PLANT SYSTEMS - FIRE SUPPRESSION SYSTEMS - FIRE SUPPRESSION WATER SYSTEM	Applicable.
3.7.8.2	PLANT SYSTEMS - FIRE SUPPRESSION SYSTEMS - SPRAY, SPRINKLER, AND/OR DELUGE SYSTEMS	Applicable whenever equipment in the spray, sprinkler, and/or deluge protected areas is required to be operable.
3.7.8.3	PLANT SYSTEMS - FIRE SUPPRESSION SYSTEMS - FIRE HOSE STATIONS	Applicable whenever equipment in the areas protected by the fire hose stations is required to be operable.
3.7.9	PLANT SYSTEMS - PENETRATION FIRE BARRIERS	Applicable.
3.7.10	PLANT SYSTEMS - SNUBBERS	Applicable. The Limiting Condition for Operation states that this specification is applicable in Modes 1, 2, 3, and 4, and Modes 5 and 6 for snubbers located on systems required operable in those modes. Snubber surveillances are governed by a separate document.
3.7.11	PLANT SYSTEMS - CONTROL BUILDING MODIFICATION CONNECTION BOLTS	Applicable.

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Technical Specification	Title	LCO Applicability
3.8.1.1	ELECTRICAL POWER SYSTEMS - A.C. SOURCES - OPERATING	Not Applicable. Applicable only in Modes 1,2,3,4.
3.8.1.2	ELECTRICAL POWER SYSTEMS - A.C. SOURCES - SHUTDOWN	Applicable. Although the applicability stated in the Limiting Condition for Operation is Modes 5 and 6, this specification is being administratively applied to the defueled condition.
3.8.2.1	ELECTRICAL POWER SYSTEMS - ONSITE DISTRIBUTION SYSTEMS - A.C. DISTRIBUTION - OPERATING	Not Applicable. Applicable only in Modes 1,2,3,4.
3.8.2.2	ELECTRICAL POWER SYSTEMS - ONSITE POWER DISTRIBUTION - A. C. DISTRIBUTION - SHUTDOWN	Applicable. Although the applicability stated in the Limiting Condition for Operation is Modes 5 and 6, this specification is being administratively applied to the defueled condition.
3.8.2.3	ELECTRICAL POWER SYSTEMS - ONSITE POWER DISTRIBUTION - D.C. DISTRIBUTION - OPERATING	Not Applicable. Applicable only in Modes 1,2,3,4.
3.8.2.4	ELECTRICAL POWER SYSTEMS - ONSITE DISTRIBUTION SYSTEMS - D.C. DISTRIBUTION - SHUTDOWN	Applicable. Although the applicability stated in the Limiting Condition for Operation is Modes 5 and 6, this specification is being administratively applied to the defueled condition.

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Technical Specification	Title	LCO Applicability
3.8.3.1	ELECTRICAL POWER SYSTEMS - UNDERVOLTAGE PROTECTION - 4.16 kV EMERGENCY BUS UNDERVOLTAGE PROTECTION	Not Applicable. Applicable only in Modes 1,2,3.
3.9.1	REFUELING OPERATIONS - BORON CONCENTRATION	Not Applicable. Applicable only in Mode 6. The limitation on minimum boron concentration ensures that the reactor will remain subcritical during core alterations and that a uniform boron concentration is maintained for reactivity control in the water volume having direct access to the reactor vessel. Because there are no fuel assemblies in the reactor vessel, this specification is not necessary.
3.9.2	REFUELING OPERATIONS - INSTRUMENTATION	Not Applicable. Applicable only in Mode 6. Because there are no fuel assemblies in the reactor vessel, there is no need for source range neutron flux monitors.
3.9.3	REFUELING OPERATIONS - DECAY TIME	Not Applicable. Applicable during movement of irradiated fuel in the reactor vessel. There are no fuel assemblies in the reactor vessel.
3.9.4	REFUELING OPERATIONS - CONTAINMENT BUILDING PENETRATIONS	Not Applicable. Applicable during core alterations or movement of irradiated fuel within the containment. There will be no irradiated fuel assemblies in containment.
3.9.5	REFUELING OPERATIONS - COMMUNICATIONS	Not Applicable. Applicable during core alterations.
3.9.6	REFUELING OPERATIONS - MANIPULATOR CRANE OPERABILITY	Not Applicable. Applicable during movement of drive shafts or fuel assemblies within the reactor vessel.

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Technical Specification	Title	LCO Applicability
3.9.7	REFUELING OPERATIONS - CRANE TRAVEL - FUEL BUILDING	Applicable with fuel assemblies and water in the storage pool.
3.9.8.1	REFUELING OPERATIONS - COOLANT CIRCULATION	Not Applicable. Applicable only in Mode 6. This specification ensures that sufficient cooling capacity is available to remove decay heat and maintain the water in the reactor vessel less than 140 degrees and that sufficient coolant circulation is maintained to minimize the effect of a boron dilution incident and prevent stratification. Since there are no fuel assemblies in the reactor vessel, there is no decay heat to be removed. Boron dilution incidents are not of concern.
3.9.8.2	REFUELING OPERATIONS - LOW WATER LEVEL	Not Applicable. Applicable in Mode 6 when the water level above the top of the reactor pressure vessel flange is less than 23 feet. Because there are no fuel assemblies and hence no decay heat in the reactor vessel, there is no need to maintain two residual heat removal loops operable to ensure decay heat removal capability.
3.9.9	REFUELING OPERATIONS - CONTAINMENT VENTILATION ISOLATION SYSTEM	Not Applicable. Applicable during core alterations or movement of irradiated fuel within the Containment. There are no fuel assemblies in the containment.
3.9.10	REFUELING OPERATIONS - WATER LEVEL - REACTOR VESSEL	Not Applicable. Applicable during movement of fuel assemblies or control rods within the reactor pressure vessel while in Mode 6. There will be no control rods or fuel assemblies in the reactor vessel.

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Technical Specification	Title	LCO Applicability
3.9.11	REFUELING OPERATIONS - STORAGE POOL WATER LEVEL	Applicable whenever irradiated fuel assemblies are in the storage pool.
3.9.12	REFUELING OPERATIONS - SPENT FUEL POOL EXHAUST SYSTEM	Applicable.
3.9.13	REFUELING OPERATIONS - CONTAINMENT PURGE EXHAUST SYSTEM OPERATION	Not Applicable. Applicable only in Mode 6.
3.10.1	SPECIAL TEST EXCEPTIONS - SHUTDOWN MARGIN	Not Applicable. Applicable only in Mode 2.
3.10.2	SPECIAL TEST EXCEPTIONS - GROUP HEIGHT, INSERTION AND POWER DISTRIBUTION LIMITS	Not Applicable. Applicable only in Mode 1.
3.10.3	SPECIAL TEST EXCEPTIONS - PRESSURE/ TEMPERATURE LIMITATION - REACTOR CRITICALITY	Not Applicable. Applicable only in Mode 2.
3.10.4	SPECIAL TEST EXCEPTIONS - PHYSICS TESTS	Not Applicable. Applicable only in Mode 2.
3.10.5	SPECIAL TEST EXCEPTIONS - NATURAL CIRCULATION TESTS	Not Applicable. Applicable during performance of physics testing and operation below the P-7 Interlock Setpoint.
3.11.1.1	RADIOACTIVE EFFLUENTS - LIQUID EFFLUENTS CONCENTRATION	Applicable At All Times.

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Technical Specification	Title	LCO Applicability
3.11.1.2	RADIOACTIVE EFFLUENTS - LIQUID EFFLUENTS - DOSE	Applicable At All Times.
3.11.1.3	RADIOACTIVE EFFLUENTS - LIQUID EFFLUENTS - LIQUID WASTE TREATMENT	Applicable At All Times.
3.11.1.4	RADIOACTIVE EFFLUENTS - LIQUID EFFLUENTS - TEMPORARY RADWASTE STORAGE TANKS	Applicable At All Times.
3.11.2.1	RADIOACTIVE EFFLUENTS - GASEOUS EFFLUENTS -DOSE RATE	Applicable At All Times.
3.11.2.2	RADIOACTIVE EFFLUENTS - GASEOUS EFFLUENTS - DOSE, NOBLE GASES	Applicable At All Times.
3.11.2.3	RADIOACTIVE EFFLUENTS - DOSE - IODINE-131, TRITIUM AND RADIONUCLIDES IN PARTICULATE FORM	Applicable At All Times.
3.11.2.4	RADIOACTIVE EFFLUENTS - GASEOUS EFFLUENTS - GASEOUS RADWASTE TREATMENT	Applicable At All Times.
3.11.2.5	RADIOACTIVE EFFLUENTS - GASEOUS EFFLUENTS - TOTAL DOSE	Applicable At All Times.
3.11.2.6	RADIOACTIVE EFFLUENTS - GASEOUS EFFLUENTS - EXPLOSIVE GAS MIXTURE	Applicable At All Times.

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Technical Specification	Title	LCO Applicability
3.11.3.1	RADIOACTIVE EFFLUENTS - SOLID RADIOACTIVE WASTE	Applicable At All Times.
3.12.1	RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM - MONITORING PROGRAM	Applicable At All Times.
3.12.2	RADIOLOGICAL ENVIRONMENTAL MONITORING - LAND USE CENSUS	Applicable At All Times.
3.12.3	RADIOLOGICAL ENVIRONMENTAL MONITORING - INTERLABORATORY COMPARISON PROGRAM	Applicable At All Times.
4.0.1	SURVEILLANCE REQUIREMENTS	Applicable.
4.0.2	SURVEILLANCE REQUIREMENTS	Applicable.
4.0.3	SURVEILLANCE REQUIREMENTS	Applicable.
4.0.4	SURVEILLANCE REQUIREMENTS	Applicable.
4.0.5	SURVEILLANCE REQUIREMENTS	Applicable.
5.0	DESIGN FEATURES	Applicable.
6.1	RESPONSIBILITY	Applicable.

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Technical Specification	Title	LCO Applicability
6.2	ORGANIZATIONAL REQUIREMENTS	Applicable.
6.3	FACILITY STAFF QUALIFICATIONS	Applicable.
6.4	TRAINING	Applicable.
6.5	REVIEW AND AUDIT	Applicable.
6.6	REPORTABLE EVENT ACTION	Applicable.
6.7	SAFETY LIMIT VIOLATION	Not Applicable. There are no fuel assemblies in Containment, therefore Safety Limits on reactor power, pressurizer pressure, RCS pressure, and loop coolant temperature are not applicable.
6.8	PROCEDURES AND PROGRAMS	Applicable.
6.9	REPORTING REQUIREMENTS	Applicable. Reports per specifications 6.9.1.1, 6.9.1.2, 6.9.1.3, and 6.9.1.7, are not anticipated.
6.10	RECORD RETENTION	Applicable.
6.11	RADIATION PROTECTION PROGRAM	Applicable.
6.12	HIGH RADIATION AREA	Applicable.
6.13	ENVIRONMENTAL QUALIFICATION	Applicable.

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Technical Specification	Title	LCO Applicability
6.14	PROCESS CONTROL PROGRAM	Applicable.
6.15	OFFSITE DOSE CALCULATION MANUAL (ODCM)	Applicable.
6.16	MAJOR CHANGES TO RADIOACTIVE WASTE TREATMENT SYSTEMS (Liquid, Gaseous, and Solid)	Applicable.