

APPENDIX A

STARTUP TEST PROGRAM INSPECTION PROCEDURES

This Appendix identifies the general and specific inspection procedures that are applicable during the startup testing phase of the Light Water Reactor Inspection Program.

Inspection  
Procedure

Number            Inspection Procedure Title

General

35501	QA for Startup Test Program
64100	Postfire Safe Shutdown, Emergency Lighting and Oil Collection Capability at Operating and Near-Term Operating Reactor Facilities
72300	Startup Test Procedure Review <sup>1</sup>
72301	Startup Test Results Evaluation <sup>1</sup>
70302	Startup Test Witnessing and Observation <sup>1</sup>
72400	Overall Startup Test Program
72500	Initial Fuel Loading Procedure Review
72524	Initial Fuel Loading Witnessing
81000 Series	Security and Safeguards <sup>2</sup>
83521	Radiation Protection - Startup
84521	Radwaste - Startup
90501	Reportable Matters - Test Program
93806	Operational Readiness Assessment Team Inspections

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<sup>1</sup> Generic Procedure referenced by other inspection procedures within MC 2514.

<sup>2</sup> As Scheduled under MC 2515.

Inspection  
Procedure  
Number      Inspection Procedure Title

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Inspection  
Procedure

Number            Inspection Procedure Title

Pressurized Water Reactor (PWR)

- 72564            Precritical Test Procedure Review (Protective Trip Circuit, Group B, and Rod Drop Measurement, Group A)
- 72566            Precritical Test Procedure Review (RCS Leak Test, Group A, and Pressurizer Effectiveness, Group B)
- 72570            Initial Criticality Procedure Review (Group A and B)
- 72572            Low Power Test Procedure Review (Moderator Temperature Coefficient Measurement and Boron Reactivity Worth, Group B, and Rod Worth and Pseudo Rod Ejection, Group A)
- 72576            Power Ascension Test Procedure Review (Natural Circulation, Group A, and Power Reactivity Coefficient Measurement, Group B)
- 72578            Power Ascension Test Procedure Review (Evaluation of Core Performance) (Group A and B)
- 72580            Power Ascension Test Procedure Review (Turbine Trip, Group B, and Generator Trip, Group A)
- 72582            Power Ascension Test Procedure Review: Loss of Offsite Power (Group A and B)
- 72583            Power Ascension Test Procedure Review: Shutdown from Outside the Control Room (Group B)
- 72584            Power Ascension Procedure Review (Evaluation of Flux Asymmetry or Pseudo Rod Ejection Test) (Group A)
- 72592            Initial Criticality Witnessing
- 72596            Precritical Data Review
- 72600            Power Level Plateau Data Review (25%)
- 72608            Power Level Plateau Data Review (50%)
- 72616            Power Level Plateau Data Review (75%)
- 72624            Power Level Plateau Data Review (100%)

Boiling Water Reactor (BWR)

- 72502            Initial Criticality Procedure Review (Group A and B)
- 72504            Heatup Phase Procedures Review

Inspection  
Procedure

<u>Number</u>	<u>Inspection Procedure Title</u>
72508	Power Ascension Procedure Review: HPCI System (Group A)
72509	Power Ascension Procedure Review: Control Rod Drive Systems (Group A and B)
72510	Power Ascension Procedure Review (Relief Valves, Group A, and MSIVs, Group B)
72512	Startup Test Procedure Review (RCIC and Recirculation Pump) (Group B)
72514	Startup Test Procedure Review (Turbine Trip, Group A, and Generator Trip, Group B)
72516	Startup Test Procedure Review: Shutdown from Outside the Control Room (Group A)
72517	Startup Test Procedure Review: Loss of Offsite Power (Group A and B)
72518	Startup Test Procedure Review (Core Performance) (Group A and B)
72526	Initial Criticality Witnessing
72532	Power Level Plateau Data Review and Evaluation

END

TABLE I

TEST CATEGORIES, TEST DESCRIPTION,  
AND INSPECTION REQUIREMENTS

<u>Category</u>	<u>Test Description</u>	<u>Inspection Requirements</u>
I	Tests on those systems or approved subsystems that directly prevent unsafe conditions or that mitigate the consequences of accidents.	Ascertain that procedures exist for all tests. Review of test procedures, test witnessing, and
evaluation		of test results shall be done for either Group A or Group B, Category I tests (see Table II). In addition, enhanced test observation
and		test data review are required for power ascension tests.
II	Tests on those systems or subsystems whose failure to operate properly will require action from a system	Ascertain that approved procedures exist for all tests. Evaluate the results of 50% of the
tests	or subsystem tested in	and determine that
evalua-	Category I to prevent or	tions made by the
licensee	mitigate an unsafe condition.	for the remaining
tests		indicate satisfactory results.
III	Tests on those systems or subsystems whose failure to	Ascertain that approved procedures exist and
that	operate properly will have a <u>lesser</u> safety significance than for systems or sub-	evaluations made by the licensee indicate satisfactory test
results.	systems in Categories I or II.	
IV	Tests on those systems or	Tests of these systems
are	subsystems not significantly related to safety.	not included in the inspection program.



TABLE II

STARTUP TEST GROUPS

(Category I Tests)

BWR

<u>Group A</u>	<u>Group B</u>	<u>Reference*</u>	<u>Inspection Procedure</u>
X	X		Initial Criticality (72502)
X		5k	HPCI (72508)
	X	2b	Control Rod Drive System (72509)
X		5c	Relief Valves (72510)
	X	5u	MSIVs (72510)
	X	5ii	Recirculation Pump Trip (72512)
	X	5k	RCIC (72512)
X		5ll	Turbine Trip (72514)
	X	5m	Generator Trip (72514)
X		5dd	Shutdown from Outside Control Room (72583)
the X (72517)	X	5jj	Loss of Offsite Power
X	X	4b	Core Performance (72518)

PWR

	X	2c	Protective Trip Circuit and Manual Scram (72564)
X (72564)		2b	Rod Drop Measurements
X		2d	Reactor Coolant System Leak Test (72566)
	X	4p	Pressurizer Effectiveness (72566)
X	X		Initial Criticality (72570)
	X	4a	Moderator Temperature coefficient Measurement (72572)
Coeffi- X		4b	Rod Worth (72572)
	X	4a	Boron Reactivity Worth Measurements (72572)
X		4c	Pseudo Rod Ejection (72572)
X		4t	Natural Circulation (72576)
	X	5a	Power Reactivity Coefficient (72576)
X	X	4e	Core Performance (72578)
X		5m	Generator Trip (72580)
	X	5ll	Turbine Trip (72580)
Control	X	5dd	Shutdown from Outside Room (72583)
X		4e	Flux Asymmetry (72584)
X (72582)	X	5jj	Loss of Offsite Power

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\* Regulatory Guide 1.68, Revision 2, Appendices A, B, and C.