DUKE POWER

McGUIRE NUCLEAR STATION

RELIEF REQUEST

Section 5.0

Revision 26
August 1, 2002

5.1 PUMP GENERIC RELIEF REQUESTS

Relief Request	Applicability	Status
MC-GRP-01	All Pumps in Program	

Generic Relief Request

RELIEF REQUEST: MC-GRP-01

PUMPS: All pumps in the Inservice Test Program

TEST REQUIREMENTS: OMa-1988 Part 6 Section 6.1 (Table 3a) specifies the allowable range for acceptable operation of vibration measurements.

BASIS FOR RELIEF: Experience has shown that smooth operating pumps (Vr ≤ 0.075 in/sec) often fall in the alert range of vibration measurement when compared to the acceptance criteria given in OMa-1988 Part 6, Table 3a. The Code does not include provisions for a fixed band acceptance criteria for these pumps. The Alternative Testing provided below applies to all pumps in the Testing Program by establishing a threshold of vibration of ≤ 0.075 in/sec. In addition to this, OMa-1988 Part 6 does not specifically address different types of positive displacement pumps. Since McGuire has internal gear positive displacement pumps, the Alternate Testing below will be used for these pumps.

ALTERNATE TESTING: In addition to the vibration specified in OMa-1988 Part 6, Table 3a, the following ranges shall be used.

	Acceptable Range	Alert Range	Required Action Range
For all pumps when Vr ≤ 0.075 in/sec	0 to 0.19 in/sec	> 0.19 ≤ 0.45 in/sec	> 0.45 in/sec
For centrifugal, vertical line shaft and positive displacement pumps except reciprocating when Vr > 0.075 in/sec	≤ 2.5 * Vr	> 2.5 * Vr to 6 * Vr or > 0.325 to 0.70 in/sec	> 6 * Vr or > 0.70 in/sec
For reciprocating pumps, when Vr > 0.075 in/sec	≤ 2.5 * Vr	> 2.5 * Vr to 6 * Vr	> 6 * Vr

5.2 PUMP SPECIFIC RELIEF REQUESTS

Relief Request	Applicability	Status
MC-SRP-CA-01	Auxiliary Feedwater Pumps	Deleted -Revision 26
MC-SRP-FD-01	Diesel Generator Fuel Oil Pumps	
MC-SRP-KC-01	Component Cooling Pumps	
MC-SRP-ND-01	Residual Heat Removal Pumps	
MC-SRP-NI-01	Safety Injection Pumps	Revised-Revision 26
MC-SRP-NV-01	Chemical & Volume Control Pumps	Revised-Revision 26
MC-SRP-RN-01	Deleted-Revision 22	

Specific Relief Request

RELIEF REQUEST: MC-SRP-CA-01

PUMPS:
1CAPU0001, 1A CA Pump
1CAPU0002, 1B CA Pump
1CAPU0003, Unit 1 Turbine Driven CA Pump
2CAPU0001, 2A CA Pump
2CAPU0002, 2B CA Pump
2CAPU0003, Unit 2 Turbine Driven CA Pump

DELETED BY REVISION 26
08/01/02

Specific Relief Request

RELIEF REQUEST: MC-SRP-FD-01

PUMPS:
1FDPU0054, 1A D/G Fuel Oil Transfer Pump
1FDPU0055, 1B D/G Fuel Oil Transfer Pump
2FDPU0054, 2A D/G Fuel Oil Transfer Pump
2FDPU0055, 2B D/G Fuel Oil Transfer Pump

TEST REQUIREMENT:

1) Measure flowrate in accordance with OMa-1988 Part 6, 4.6.5.

2) Compare pressure reading with corresponding reference values as required in OMa-1988 Part 6, 5.2 (d).

BASIS FOR RELIEF:

1) This pump transfers Diesel generator fuel oil from the Diesel Fuel Oil Storage Tank to the Fuel Oil Day Tank. There does not exist in the piping system associated with this pump, a flow measuring device which could be used for flow measurements.

2) These diesel fuel oil transfer pumps are positive displacement type pumps. The capacity of positive displacement pumps is independent of the discharge pressure in the design operating range when the pumps are in good operating condition. Pump degradation may result in the loss of capacity at higher pressures, however, these pumps supply fuel oil to a non-pressurized tank and the pressure developed at the discharge of the pump is due only to system resistance. Since the differential pressure across the pump is independent of pump performance, the measurement of pump differential pressure is not meaningful. (1)

When these pumps have been tested in the past, the Diesel generator has been in operation and allowed to reduce the level in the day tank. This lower level allows the Fuel Oil Transfer pump to be operated for typically 1 minute, 15 seconds. After this time, the pump is stopped to prevent overfilling the day tank. Downstream of this pump is a backpressure control valve which is set at a minimum of 10 psig. This pressure ensures the valve will close to prevent gravity feed from the main storage tank to the day tank. Should this valve be set too high, the pump's relief valve will allow oil to re-circulate around the pump, however the flow requirements for the day tank will not be met. Therefore, the pump's discharge pressure can indicate a wide range of values with the pump still in proper operating condition, however, flowrate could be affected by too high discharge pressure. For these reasons, this pump's flowrate will be trended, but not the discharge pressure.

Specific Relief Request

RELIEF REQUEST: MC-SRP-FD-01 (Continued)

ALTERNATE TESTING: The following Alternate Testing will be performed under the Supplemental Test Program (Appendix B Program). The FD Pumps will be tested pursuant to NUREG-1482, Section 3.4.

1) Flowrate from the pump will be calculated by measuring the level rise in the day tank over time and converting the results to a flow in gallons per minute. Since the stopwatch and level measurement device used for this test will meet the calibration requirements of the code, the overall accuracy requirements of ± 2% will be met. At a 6 month frequency, FD pump performance will be monitored to ensure that flow does not decrease to less than 200% of flow required (approximately 12.5 gpm). This test will be done during diesel operation.

2) Pump discharge pressure will be monitored during the pump run, and recorded in the record of test. The reading obtained will be verified to be greater than 10 psig to meet the requirements described above, however, discharge pressure will not be compared to an acceptance criteria developed from OMa-1988 Part 6, Table 3b. Flowrate measurements and vibrations will be recorded.

(1) Safety Evaluation Report Dated January 16, 1991 for McGuire Units 1 and 2
(2) Memorandum to M. T. Cash dated February 24, 1997 regarding 1/16/97 teleconference.

Specific Relief Request

RELIEF REQUEST: MC-SRP-KC-01

PUMPS:
1KCPU0001, 1A1 Component Cooling Water Pump
1KCPU0002, 1A2 Component Cooling Water Pump
1KCPU0003, 1B1 Component Cooling Water Pump
1KCPU0004, 1B2 Component Cooling Water Pump
2KCPU0001, 2A1 Component Cooling Water Pump
2KCPU0002, 2A2 Component Cooling Water Pump
2KCPU0003, 2B1 Component Cooling Water Pump
2KCPU0004, 2B2 Component Cooling Water Pump

TEST REQUIREMENT: OMa-1988 Part 6, Section 4.6.1.2.a requires that the full scale range of the instrument shall be three times the reference value or less.

BASIS FOR RELIEF: The installed process instrumentation for the KC pump suction gauge is a 0-60 psig, 0.5 % accuracy. Typical values for the KC suction pressure during the KC pump testing is 15-20 psig; therefore, the process gauge does not meet the three times criteria. The accuracy of the process gauge (0.5 %) is well below the requirements specified in Table 1 for pressure instrument accuracy (2 %). The actual reading error at test pressure due to the process instrument accuracy is 2 % (0.5 * 60/15). If a 0-45 psig test instrument is used (which meets the three times criteria) and it has an accuracy of 2 %, then the reading error would be 6 % (2 * 45/15). When the requirements of OMa-1988 Part 6, Section 4.6.1.2.a and Table 1 are combined, the actual instrument error introduced into the test is less than the code allowable (2 % vs. 6 %). Using the process instrument for suction pressure data does not degrade the quality of the test and meets the intent of the instrumentation requirements of the code; just not the specify range requirements of OMa-1988 Part 6 Section 4.6.1.2.a.

ALTERNATE TESTING: The installed process instrumentation will be used to measure KC suction pressure for the 1A1, 1A2, 1B1, and 1B2KC (2A1, 2A2, 2B1, and 2B2KC) pump tests.

Specific Relief Request

RELIEF REQUEST: MC-SRP-ND-01

PUMPS:
1NDPU0001, 1A Residual Heat Removal Pump
1NDPU0002, 1B Residual Heat Removal Pump
2NDPU0001, 2A Residual Heat Removal Pump
2NDPU0002, 2B Residual Heat Removal Pump

TEST REQUIREMENT: OMa-1988 Part 6, Section 4.6.1.2.a specifies the range of each instrument shall be three times the reference value or less.

BASIS FOR RELIEF: Range requirements will be waived for the tests. The purpose of the quarterly test is to verify Tech Spec requirements are met and to obtain vibration data for trending. The instrumentation used for the quarterly Residual Heat Removal Pump test will meet accuracy requirements for assuring Residual Heat Removal Pump operability per Technical Specifications.

ALTERNATE TESTING: The Residual Heat Removal Pumps will be tested according to the following program, which is consistent with Generic Letter 89-04.

These pumps have process instrumentation installed such that there are two suction pressure gauges (0-60 psig and 0-600 psig), and one discharge pressure gauge, (0-1000 psig). Each has a 0.5% accuracy. This is done to provide accurate pressure indication in either the recirculation or the heat removal condition of operation. As such, there are times when the 3 times the reference range requirements cannot be met.

Quarterly

The Residual Heat Removal Pumps will be tested quarterly to verify Technical Specifications are met. The test measures differential pressure and velocity vibration data. The differential pressure and velocity vibration data will be trended. The instrument used to measure vibrations will meet the requirements specified in relief request MC-GRP-01.

Specific Relief Request

RELIEF REQUEST: MC-SRP-ND-01 (Continued)

The test loop used in the test has a flow measuring orifice installed, however, the system resistance cannot be adjusted with the associated throttling valve without invalidating the Residual Heat Removal system flow balance (a Tech Spec balance of flow to all 4 cold legs.) Therefore, flow through this loop will be recorded for information only.

The instrumentation range requirements of OMa-1988 Part 6, Section 4.6.1.2.a will be waived. Since the instrumentation used to measure suction and discharge pressure is more accurate than code requirements (0.5% vs. 2%) using the process instrument for this test will yield results within the overall accuracy requirements of the code and will meet applicable accuracy requirements for the determination of operability per Technical Specifications. Typical values for ND suction pressure in mini-flow are 48-81 psig, and discharge pressures are in the 230-260 psig range. Therefore, the process range for discharge pressure (0-1000 psig) will not meet the three times criteria; the appropriate suction pressure loop can be used, which is within the three times requirement. The accuracy of these process instruments (0.5%) is well below the requirements specified in Table 1 of OM-6 for instrument accuracy (2%). The actual reading error at test pressure due to the process instrument is 2.2 % (0.5 * 1000/230) for discharge pressure at the low end of this range (ND pump procedures specify that instrumentation must meet the three times criteria). If a 0-690 psig gauge was used with 2% accuracy, the reading error would be 6% (2 * 690/230). When the requirements of Oma-1988 Part 6, Section 4.6.1.2.a and Table 1 are combined, the actual instrument error introduced into the test is less than the code allowable (2.2 % vs. 6 % at the low (conservative) end). Using the process instruments for suction and discharge pressure data does not degrade the quality of the test and meets the intent of the instrumentation requirements of the code.

Refueling Outage

Full flow vibration measurements will be taken during refueling outages as part of the IST Supplemental Program.

Specific Relief Request

RELIEF REQUEST: MC-SRP-NI-01

PUMPS:
1NIPU0009, 1A Safety Injection Pump
1NIPU0010, 1B Safety Injection Pump
2NIPU0009, 2A Safety Injection Pump
2NIPU0010, 2B Safety Injection Pump

TEST REQUIREMENT: OMa-1988 Part 6, Section 4.6.1.2.a specifies the range of each instrument shall be three times the reference value or less. OMa-1988 Part 6, Section 4.6.1.2.b also specifies the reference value of digital instruments shall not be less than 70% of calibrated range.

BASIS FOR RELIEF: The purpose of the quarterly and refueling surveillance testing is to trend pump performance and satisfy Technical Specification surveillance requirements. The suction and discharge test instruments utilized for testing will satisfy intended code precision (2% accuracy and a range not to exceed 3 times test reference value). The suction pressure minimum test reference value is 20 psig, such that the code allowable test instrument error would be <±1.2 psi. Similarly the discharge pressure minimum test reference value is 900 psi, whereby the code allowable test instrument error would be <±54 psi. The test instrumentation shall have a precision (based on range and accuracy) equivalent to or better than that required by the code.

Digital instrumentation used (if any) will meet or exceed code required precision (based on specified range and accuracy limits outlined above).

ALTERNATE TESTING: The Safety Injection Pumps will be tested according to the following program, which is consistent with Generic Letter 89-04.

Quarterly

The Safety Injection Pumps will be tested quarterly to verify Technical Specifications are met. The test measures differential pressure and velocity vibration data. The instrument used to measure vibrations will meet the requirements specified in relief request MC-GRP-01. The test loop has a flow measuring orifice

Specific Relief Request

RELIEF REQUEST: MC-SRP-NI-01 (Continued)

installed, however, there is no means provided to vary the system resistance to set either the flow or differential pressure. Therefore, flow through this loop will be recorded for information only. The instrumentation range requirements of OMa-1988 Part 6, Section 4.6.1.2.a and b will be waived. The test instrumentation shall have a precision (based on range and accuracy) equivalent to or better than that required by the code.

Refueling Outage

Full-flow vibration will be recorded under the IST Supplemental Program.

Specific Relief Request

RELIEF REQUEST: MC-SRP-NV-01

PUMPS:
1NVPU0015, 1A Centrifugal Charging Pump
1NVPU0016, 1B Centrifugal Charging Pump
2NVPU0015, 2A Centrifugal Charging Pump
2NVPU0016, 2B Centrifugal Charging Pump

TEST REQUIREMENT: OMa-1988 Part 6, Section 4.6.1.2.a specifies the range of each instrument shall be three times the reference value or less. OMa-1988 Part 6, Section 4.6.1.2.b also specifies the reference value of digital instruments shall not be less than 70% of calibrated range.

BASIS FOR RELIEF: The purpose of the quarterly and refueling surveillance testing is to trend pump performance and satisfy Technical Specification surveillance requirements. The suction and discharge test instruments utilized for testing will satisfy intended code precision (2% accuracy and a range not to exceed 3 times test reference value). The suction pressure minimum test reference value is 16 psig, such that the code allowable test instrument error would be <±1 psi. Similarly the discharge pressure minimum test reference value is 850 psi, whereby the code allowable test instrument error would be <±50 psi. The test instrumentation shall have a precision (based on range and accuracy) equivalent to or better than that required by the code.

Digital instrumentation used (if any) will meet or exceed code required precision (based on specified range and accuracy limits outlined above).

ALTERNATE TESTING: The Centrifugal Charging Pumps will be tested according to the following program, which is consistent with Generic Letter 89-04.

Quarterly

The Centrifugal Charging Pumps will be tested quarterly to verify Technical Specifications are met. The test measures differential pressure and velocity vibration data. The instrumentation range requirements of OMa-1988 Part 6, Section 4.6.1.2.a and b will be waived. The test instrumentation shall have a precision (based on range and accuracy) equivalent to or better than that required by

Specific Relief Request

RELIEF REQUEST: MC-SRP-NV-01 (Continued)

the code. The instrument used to measure vibrations will meet the requirements specified in relief request MC-GRP-01. The flow through the miniflow line to the Volume Control Tank will be assumed to be constant at the orifice design conditions.

Refueling Outage

During each refueling outage, a code pump test - including velocity vibration measurements - will be performed at a full flow test point. The instrumentation range requirements of OMa-1988 Part 6, Section 4.6.1.2.a and b will be waived. The test instrumentation shall have a precision (based on range and accuracy) equivalent to or better than that required by the code.

Specific Relief Request

RELIEF REQUEST: MC-SRP-RN-01

PUMPS:
1RNPU0003, 1A Nuclear Service Water Pump
1RNPU0004, 1B Nuclear Service Water Pump
2RNPU0003, 2A Nuclear Service Water Pump
2RNPU0004, 2B Nuclear Service Water Pump

Unit 1 - Deleted by Revision 22
Unit 2 - Deleted by Revision 17

5.3 VALVE GENERIC RELIEF REQUESTS

Relief Request	Applicability	Status
MC-GRV-01	Safety/Relief Valves Tested Under Ambient Conditions (remove 10 minute hold time)	
MC-GRV-02	Safety/Relief Valves Tested At Other Than Ambient Conditions (reduce 10 minute hold to 5 minute hold)	
MC-GRV-03	Safety/Relief Valves Tested Under Ambient Conditions (Thermal Equilibrium)	
MC-GRV-04	Check Valves In Condition Monitoring Program	Added-Revision 26

Generic Relief Request

Item Number:	MC-GRV-01
Component Number (s):	**All safety and relief valves tested under ambient conditions using a test medium at ambient conditions.**
Flow Diagram (s):	All applicable
Function (s):	Provide over-pressure protection to associated systems.
Test Requirement:	OM-1, 1987 Sections 8.1.2.8 and 8.1.3.7, Time Between Valve Openings; A minimum of 10 min. shall elapse between successive openings.
Basis for Relief:	This is a generic request for relief for safety and relief valves in compressible fluid service (other than steam) and liquid service applications, tested under ambient conditions using a test medium at ambient conditions. For these valves, the requirement for verifying temperature stability (by waiting 10 min. between successive openings) is inappropriate and of no value. There is negligible affect on valve setpoint due to minor temperature deviations that might occur at these ambient conditions. The net result of having to wait 10 minutes between successive openings is an increase in manpower and time to perform the tests and an increase in radiation exposure when located in radiation areas, without a commensurate increase in test accuracy. Note: This issue has been identified by the ASME Code Committees along with safety and relief valve industry experts and is reflected in a change made to the 1995 version of the code (Appendix I). In addition, NUREG –1482, 4.3.9 (6) STATES "Thermal equilibrium need not be verified for liquid service valves tested at ambient temperature using a test medium (at ambient) temperature."
Code Alternative:	For safety and relief valves tested under ambient conditions using test medium at ambient conditions, the 10 min. hold requirement between successive openings will be deleted.

Generic Relief Request

Item Number:	MC-GRV-02
Component Number (s):	**All safety and relief valves tested at other than ambient conditions.**
Flow Diagram (s):	All applicable
Function (s):	Provide over-pressure protection to associated systems.
Test Requirement:	OM-1, 1987 Sections 8.1.1.8, 8.1.2.8 and 8.1.3.7, Time Between Valve Openings; A minimum of 10 min. shall elapse between successive openings.
Basis for Relief:	This is a generic request for relief for all safety and relief valves. The 1995 version of the code, Appendix I has adopted a 5 minute hold time for steam, compressible fluid, and water service applications rather than the 10 minute hold time. This change was based on actual test data that revealed insignificant effect on valve setpoint by reducing the hold time between successive openings to 5 minutes.
Code Alternative:	For safety and relief valves tested at other than ambient conditions, a 5 minute hold time will be used between successive valve openings.

Generic Relief Request

Item Number:	MC-GRV-03
Component Number (s):	**All safety and relief valves tested under ambient conditions using a test medium at ambient conditions.**
Flow Diagram (s):	All applicable
Function (s):	Provide over-pressure protection to associated systems.
Test Requirement:	OM-1, 1987 Sections 8.1.2.4, 8.1.3.4, Temperature Stability; the temperature of the valve body shall be known and stabilized before commencing set pressure testing.
Basis for Relief:	This is a generic request for relief for safety and relief valves tested under ambient conditions using a test medium at ambient conditions. For these valves, the requirement for verifying temperature stability (by ensuring no change in measured temperature of more than 10°F in 30 minutes) is inappropriate and needlessly adds time to the test activity. Since the valves will be tested at ambient conditions, no temperature differential exists and the valves would already be considered stable per the test requirement above. There is negligible affect on valve setpoint associated with any minor temperature deviations at these ambient conditions. Note: This issue has been identified by the ASME Code Committees along with safety and relief valve industry experts and is reflected in a change made to the 1995 version of the code, Appendix I, ("Verification of thermal equilibrium is not required for valves which are tested at ambient temperature using a test medium at ambient temperature").
Code Alternative:	For safety and relief valves tested under ambient conditions using test medium at ambient conditions, the Temperature Stability requirements of OM-1, 1987 Sections 8.1.2.4 and 8.1.3.4 will be replaced by the Thermal Equilibrium requirements in the 1995 edition of the code.

Generic Relief Request

Item Number:	MC-GRV-04
Component Number (s):	**All check valves in the IST Program**
Flow Diagram (s):	All applicable
Function (s):	All "active" safety functions
Test Requirement:	The applicable ASME/ANSI OMa-1988, Part 10 requirements for check valves.
Basis for Relief:	In order to take advantage of the American Society of Mechanical Engineer's (ASME) and Nuclear Regulatory Commission's (NRC) improvement efforts in developing a performance-based code (versus the current prescriptive code requirements), relief is being requested to implement the Appendix II, "Check Valve Condition Monitoring Program," per ASME OM Code-1995 Edition through 1996 Addenda. This is an approved and acceptable ASME Code alternative to testing check valves as set forth in ASME/ANSI OMa-1988, Part 10 section 4.3.2, "Exercising Tests for Check Valves." Relief is being requested in accordance with 10CFR50.55a(f)(4)(iv) due to the schedule that is being requested to implement the Condition Monitoring Program. Check Valves will be monitored by the condition monitoring approach adopting the requirements of Appendix II, "Check Valve Condition Monitoring Program," in the ASME OM Code-1995 Edition through 1996 Addenda, subject to the three modifications found in 10CFR50.55a(b)(3)(iv). The schedule for implementing the Appendix II condition monitoring program allows a time period for one complete refuel cycle to be completed, to test valves that can only be safely tested during a refuel outage, which is the case for some of the check valves not currently bi-directional tested. It will also allow sufficient time to establish the process and procedures, and evaluate groupings, which are necessary to implement the Appendix II Condition Monitoring Program requirements. The implementation period requested is approximately two years and extends to December 31, 2003.

There are 74 Unit 1 and 68 Unit 2 check valves that are not currently tested in both the open and close directions, but will be bi-directional tested based on approval of this request. The initial evaluations performed will include those valves not currently bi-directional tested. Bi-directional testing improves the capability to detect failures. This code update for check valves only, is in advance of the March 1, 2004 required 10-year IST program Code update. This proposed alternative provides an acceptable level of quality and safety.

Code Alternative:

As an alternative to the testing or examination requirements of ISTC-3510, ISTC-3520, ISTC-3540, and ISTC-5221, the Owner may establish a condition monitoring program. The purpose of this program is both to improve check valve performance and to optimize testing, examination, and preventive maintenance activities in order to maintain the continued acceptable performance of a select group of check valves. The Owner may implement this program on a valve or a group of similar valves. The program shall be implemented in accordance with ASME OM Code-1995 Edition through 1996 Addenda, Appendix II, Check Valve Condition Monitoring Program. If the Appendix II program is discontinued for a valve or group of valves, the requirements of all applicable check valve portions of ASME OM Code-1995 Edition through 1996 Addenda will be implemented.

ADDITIONAL INFORMATION:

ACCEPTANCE CRITERIA:

Disassembly and inspection, non-intrusive test, and surveillance test acceptance criteria will be in accordance with station procedures.

REFERENCES:

Part 50 - Statements of Consideration for the Final Rule Effective November 22, 1999.

APPROVAL REFERENCES:

This request needs to be submitted and approved pursuant to 10 CFR 50.55a(f)(4)(iv) because it allows a period of time for implementing bi-directional testing of check valves currently tested in one direction only.

5.4 VALVE SPECIFIC RELIEF REQUESTS

Relief Request	Applicability	Status
MC-SRV-NS-01	Open on Flow - Containment Spray Discharge Pumps	Revised-Revision 26
MC-SRV-RN-01	Deleted-Revision 21	
MC-SRV-VG-01	Deleted-Revision 21	
MC-SRV-WN-01	Pump Discharge Check Valves - Diesel Generator Room Sump Pump System	

Specific Relief Request

Item Number:	MC-SRV-NS-01
Valve:	1NS-13, 1NS-16, 1NS-30, 1NS-33, 1NS-41, 1NS-46
Flow Diagram:	MCFD-1563-1.0
Code Category:	C
ASME Class:	2
Function:	Open on flow from containment spray pumps.
Test Requirement:	Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Relief:	Containment Spray valves 1NS-13, 16, 30, 33, 41, and 46 are Aloyco/Walworth model D-49300 cover hung, swing check valves. They are normally closed providing Category C interior containment isolation for Containment Spray and Auxiliary Containment Spray (valves 1NS-41 and 46). OMa-1988, Part 10, paragraph 4.3.2.1 requires quarterly exercising, deferrable to cold shutdowns or refueling outages. McGuire FSAR Table 6-112 identifies these valves as Leak Class 1A valves not requiring leak rate testing due their inability to release containment atmosphere during a LOCA. Full stroke operation of the check valves shall be verified by disassembly/inspection of the valves as no operational method exists without actuating containment spray (reference MC-NS-02, NUREG-1482 Staff Position 2). As a supplement to the full stroke testing, part stroke and closed verification will be conducted upon reassembly and periodically by air test as described for the spray nozzle test in McGuire FSAR 6.5.4 (reference, NUREG-1482 Staff Position 2). For valve disassembly/inspection, all six valves will be grouped into one group and inspected within a four cycle window (six year interval). All six valves are identical in manufacturer and installation. Operationally, the valves are identical with respect to operational readiness. During system actuation, supply originates from the Containment Spray system for valves 1NS-13, 16, 30, and 33 and Residual Heat Removal system for 1NS-41 and 46.

Specific Relief Request

Item Number: MC-SRV-NS-01

Basis for Relief: (cont.)

In spray modes both systems have similar hydraulic characteristics. At McGuire's discretion the valves may be disassembled/inspected sequentially, in sub-groups, or as one complete group every fourth outage (six years). Diversion from the sequential disassembly/inspection represents an extension from the Code required frequency.

The relief request does not represent a decrease in quality nor safety. The valve disassembly/inspection will demonstrate ability of the valve to full stroke and fully close. As the valves do not function except during testing and severe plant emergencies, no operating degradation mechanisms exist. Potential degradation mechanisms from the valves being in a static position will be identified by the part stroke test conducted each refueling outage on all valves.

Compliance with the Code requirements is impractical and would impose unnecessary hardship. The valves are located within the containment dome volume and are accessible by a temporary cantilevered scaffold attached to the Polar Crane Scissors Jack. This action, in accordance with the requirements of 29CFR 1910.28, 29CFR 1926.452, ANSI A10.8-1977, and McGuire's Scaffold program places personnel in unsafe positions during the erection/removal of the scaffold and valve testing. No additional assurance of valve function is gained. In fact, although unlikely, frequent intrusion into the valves' internals and the inability to verify exact seat alignment during reassemble may degrade the valves' condition.

Pursuant to NUREG-1482 Staff Position 2, extension of the valve disassembly/inspection interval will be considered in cases of extreme hardship. Response to Question 19 of same implies "extreme hardship" is proportional to the impact on plant safety. The hardship impact is one of undue personnel safety risk and refueling outage extension. Yet the benefit from testing each refueling outage, as compared to the proposed scheme, is negligible at best. All valves will be disassembled/inspected once per four refueling outages (six years).

Specific Relief Request

Item Number: MC-SRV-NS-01

Basis for Relief: (cont.)

A review of McGuire's valves, similar industry valves, and the "EPRI Applications Guidelines for Check Valves in Nuclear Power Plants" was conducted.

A review of the past 6 Unit 1 refueling outages, 7 Unit 2, identified part stroke testing of all valves every outage through 1/2EOC 9. Since 1/2EOC 6 each Containment Spray check valve has been disassembled/inspected once and Auxiliary Containment Spray valves twice (due to the current grouping scheme). A comprehensive review of all valves identified no indication of wear, corrosion, or degradation.

A NPRDS search for Aloyco-Walworth and Walworth check valves provided a list of 34 Containment Spray check valve failures. A detailed review of the 34 failures identified 14 potentially related failures. Subsequent conversation with the respective plants' System Engineers resolved 11 of these potentially related failures as unrelated. Reasons for determining a valve failure was unrelated included the following; valves normally see flow during testing or other plant operation, and recent ISI disassembly/inspection of valves identified no degradation. The 3 remaining potentially related failures included 2 which could not be determined and 1 which was a result of valve disk misalignment. As stated earlier the potential for valve disk misalignment increases, although marginally, with repetitive disassembles.

A review of the "EPRI Applications Guidelines for Check Valves in Nuclear Power Plants" primarily addressed degradation of check valves regularly in operation service. Design criteria for check valve application was also discussed. Comparison with the subject check valves did not reveal any design misapplication issues. The issue of valve sticking open/closed was discussed in section 6.5.4, identifying improperly assembly as a potential cause. This issue would be addressed by the proposed part flow testing.

This Relief Request evaluation concludes adequate justification without compromise to safety or quality exist to warrant the proposed test methodology.

Specific Relief Request

Item Number:	MC-SRV-NS-01
Test Alternative & Frequency:	Containment Spray valves 1NS-13, 16, 30, 33, 41, and 46 will be grouped into a single test group. The valves may be disassembled/inspected sequentially, in sub-groups, or as one complete group every fourth outage (6 years). Each valve will be disassembled/inspected once per four refueling outages (6 years). Each Containment Spray valve will be part stroke tested during each refueling outage.

Specific Relief Request

Item Number: MC-SRV-RN-01

Valve: 1RN-994, 1RN-1006
2RN-994, 2RN-1006

Unit 1 - Deleted by Revision 21
Unit 2 - Deleted by Revision 16

Specific Relief Request

Item Number: MC-SRV-VG-01

Valve: 1VGSV5160, 1VGSV5161, 1VGSV5162, 1VGSV5163, 1VGSV5170, 1VGSV5171, 1VGSV5172, 1VGSV5173

2VGSV5160, 2VGSV5161, 2VGSV5162, 2VGSV5163, 2VGSV5170, 2VGSV5171, 2VGSV5172, 2VGSV5173

Unit 1 - Deleted by Revision 21
Unit 2 - Deleted by Revision 16

Specific Relief Request

Item Number:	MC-SRV-WN-01
Valve:	1WN-3, 1WN-5, 1WN-7, 1WN-11, 1WN-13, 1WN-15 2WN-3, 2WN-5, 2WN-7, 2WN-11, 2WN-13, 2WN-15
Flow Diagram:	MCFD-1609-7.0 MCFD-2609-7.0
Code Category:	C
ASME Class:	3
Function:	Pump discharge check valves. All valves isolate parallel pump flow losses. 1(2)WN-3, 1(2)WN-5, 1(2)WN-11 and 1(2)WN-13 open to allow pump flow and close to isolate opposite pump flow losses. 1(2)WN-7 and 1(2)WN-15 close to isolate non safety related pump from safety related pumps.
Test Requirement:	Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Relief:	These valves are tested with pump operation. The pumps are considered to be dry sump pumps (reference OMa-1988 Part 6, 5.5) and are tested on a two year frequency.
Test Alternative & Frequency:	Valves will be verified to fully cycle with the pump tests every two years.

DUKE POWER

McGUIRE NUCLEAR STATION

JUSTIFICATION FOR DEFERRAL

Section 6.0

Revision 26
August 1, 2002

6.1 JUSTIFICATION FOR DEFERRAL

Justification Number	Applicability	Status
MC-BB-01	BB Containment Isolation	Added-Revision 26
MC-CA-01	CA to Steam Generator Checks	
MC-CA-02	CA from Nuclear Service Water Checks	Revised-Revision 26
MC-CA-03	DELETED-Revision 25	
MC-CA-04	CA Pump Suction Isolation	
MC-CF-01	Feedwater & Containment Isolation	
MC-CF-02	Feedwater Control	
MC-CF-03	Feedwater Supply to Steam Generators	
MC-CF-04	S/G Feedwater Control By Pass	
MC-CF-05	DELETED-Revision 25	
MC-CF-06	S/G Cont. Isolation Inlet Checks	
MC-FW-01	FWST to ND Pump Isolation	
MC-FW-02	FWST to ND Pump Checks	
MC-FW-03	FSWT to Spent Fuel Pool Checks	
MC-IA-01	Personnel Air Lock Isolation Checks	
MC-KC-01	KC to NC Pump Containment Isolation	
MC-KC-02	KC to NC Pump Containment Isolation	
MC-KC-03	KC to NCDT Hx Isolation Valves	
MC-KC-04	KC to NCDT Hx Isolation Valves	
MC-KC-05	DELETED-Revision 26	Deleted-Revision 26
MC-KC-06	KC to NCDT Hx Supply Check	
MC-KC-07	DELETED-Revision 26	Deleted-Revision 26
MC-KC-08	NC Pump Supply Header Checks	
MC-KC-09	DELETED-Revision 26	Deleted-Revision 26
MC-NB-01	NB Containment Checks	
MC-NB-02	DELETED-Revision 26	Deleted-Revision 26
MC-NB-03	NB Recycle Holdup Tank Check	Added-Revision 26
MC-NC-01	Reactor Coolant System PORV	
MC-NC-02	Reactor Vessel Head Vents	
MC-NC-03	DELETED-Revision 26	Deleted-Revision 26
MC-NC-04	Relief Header to Pressurized Relief Tank	Revised-Revision 26
MC-NC-05	Relief Header to Pressurized Relief Tank	
MC-NC-06	Pressurizer PORV Isolation	
MC-ND-01	ND Pump Suction from NC	
MC-ND-02	ND Pump Supply to NV and NI Pumps	

6.1 JUSTIFICATION FOR DEFERRAL

Justification Number	Applicability	Status
MC-ND-03	ND Hx Crossover Block Valve	
MC-ND-04	ND to NI & NV Pumps Suction Checks	
MC-ND-05	ND to NI Pumps Suction Checks	
MC-ND-06	ND Pump Discharge Checks	Revised-Revision 26
MC-ND-07	ND Pump Suction From FWST	
MC-NF-01	NF Containment Isolation Checks	
MC-NF-02	NF Containment Isolation Checks	Added-Revision 26
MC-NI-01	NC Cold Leg Injection From NV	
MC-NI-02	FWST To NI Pumps	
MC-NI-03	NI Pumps Miniflow Isolation	
MC-NI-04	Safety Injection to Hot Leg	Revised-Revision 26
MC-NI-05	Safety Injection to Cold Leg	
MC-NI-06	Safety Injection Suction Flow FWST	
MC-NI-07	Flow for ND to Cold Leg	
MC-NI-08	NV & NT Pump Suction Crossover	
MC-NI-09	ND to Hot Leg Isolation	
MC-NI-10	RX Building Sump to ND & NS	
MC-NI-11	NV & NI Pump Suction Crossover	
MC-NI-12	NI to Cold Leg Checks	
MC-NI-13	Discharge Checks - Test Isolation	
MC-NI-14	FWST to NI Pumps Checks	
MC-NI-15	NI Pump Discharge Checks	
MC-NI-16	NI to Hot Leg Checks	Revised-Revision 26
MC-NI-17	NI to Cold Leg Checks	
MC-NI-18	ND to Cold Leg Checks	Revised-Revision 26
MC-NI-19	DELETED-Revision 26	Deleted-Revision 26
MC-NI-20	NI Pump Suction from ND	
MC-NI-21	Containment Isolation Checks	
MC-NI-22	NI CLA Discharge Checks	Revised-Revision 26
MC-NI-23	NI C/I Inside Checks	
MC-NI-24	NI CLA Discharge Checks	Revised-Revision 26
MC-NI-25	NI Pump Suction from FWST	
MC-NM-01	DELETED-Revision 26	Deleted-Revision 26
MC-NM-02	NM Containment Isolation	Added-Revision 26
MC-NS-01	ND to NS Containment Isolation	

6.1 JUSTIFICATION FOR DEFERRAL

Justification Number	Applicability	Status
MC-NS-02	DELETED-Revision 25	
MC-NS-03	RWST to NS Pumps	Revised-Revision 26
MC-NS-04	Back Flow Preventer	Revised-Revision 26
MC-NS-05	NS Pump Suction Isolation Valves	
MC-NS-06	Containment Sump to NS Pump Suction Isolation	
MC-NS-07	NS Pump Discharge Checks	Added-Revision 26
MC-NV-01	NC Containment Isolation	
MC-NV-02	Letdown Containment Isolation	
MC-NV-03	DELETED-Revision 26	Deleted-Revision 26
MC-NV-04	Volume Control Tank Isolation	
MC-NV-05	NV Charging Line Containment Isolation	
MC-NV-06	NV Pump Suction from FWST	
MC-NV-07	BA to Charging Pump Checks	
MC-NV-08	NV Isolation to Volume Control Tank	
MC-NV-09	BA to NV Pumps	Revised-Revision 26
MC-NV-10	Centrifugal Charging Pump Discharge Checks	
MC-NV-11	CCP Suction from FW	
MC-NV-12	Spring Loaded Bypass Checks	
MC-NV-13	NV Charging Pump Suction Checks	
MC-NV-14	Containment Isolation Checks	
MC-NV-15	Charging Pump Suction Checks	
MC-NV-16	DELETED-Revision 22	
MC-NV-17	Standby Makeup Pump. To NC Pump. Seals	
MC-NV-18	DELETED-Revision 26	Deleted-Revision 26
MC-NV-19	Let down Orifice Outlet	
MC-RF-01	RF to Containment Isolation Checks	
MC-RF-02	Containment Isolation Outside	
MC-RN-01	RX Bldg. Non-Essential Supply Containment Isolation	
MC-RN-02	NC Pump Air Cooler Relief	
MC-RN-03	DELETED-Revision 21	
MC-RN-04	DELETED-Revision 21	
MC-RN-05	DELETED-Revision 21	
MC-RN-06	DELETED-Revision 22	
MC-RV-01	Containment Discharge Isolation	
MC-SA-01	SM To CA Pump Turbine Checks	Revised-Revision 26

6.1 JUSTIFICATION FOR DEFERRAL

Justification Number	Applicability	Status
MC-SA-02	SA Pump Turbine Maint. and Drain Loop Seal Isolation	
MC-SM-01	Main Steam Isolation Valves	
MC-VB-01	Containment Isolation Checks	
MC-VG-01	DELETED-Revision 25	
MC-VG-02	Diesel Generator Starting Air Solenoid Valves	
MC-VI-01	Back Up N2 Supply to PORV Isolation	
MC-VI-02	Upper Containment Isolation Checks	
MC-VI-03	Containment Isolation Inside Checks	
MC-VI-04	Lower Containment Non-Essential Header Outside	
MC-VS-01	VS Containment Isolation Inside Checks	
MC-VX-01	Cont. Sump Return To Cont. Inside Checks	
MC-WL-01	DELETED-Revision 26	Deleted-Revision 26
MC-WL-02	DELETED-Revision 26	Deleted-Revision 26
MC-YM-01	YM Containment Isolation Inside Checks	

Justification for Deferral

Item Number:	MC-BB-01
Valve:	1BB-1B, 1BB-2B, 1BB-3B, 1BB-4B, 1BB-5A, 1BB-6A, 1BB-7A, 1BB-8A 2BB-1B, 2BB-2B, 2BB-3B, 2BB-4B, 2BB-5A, 2BB-6A, 2BB-7A, 2BB-8A
Flow Diagram:	MCFD-1580-1.0, MCFD-2580-1.0
Code Category: B	
ASME Class:	2
Function:	Closed to provide containment isolation for Steam Generator Blowdown system penetrations.
Test Requirement:	Stroke Time – Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1
Basis for Deferral:	These valves are open normally to provide continuous blowdown flow from the steam generator secondary side. Stroking the valves causes water hammer conditions when the blowdown flow is re-established. The water hammer poses an equipment damage potential and a personnel safety hazard which could be reduced by stroking the valves during cold shutdown conditions. NUREG-1482 section 2.4.5 gives general guidance on deferring inservice testing to cold shutdown valves which when cycled could subject a system to "undue stress or reduce the life expectancy of plant components." Quarterly stroke testing will therefore be discontinued to prevent unnecessary stroking of and thus increase the life expectancy of the valves.
Test Alternative & Frequency:	Valves will be full stroke exercised at cold shutdown.

Justification for Deferral

Item Number:	MC-CA-01
Valve:	1CA-37, 1CA-41, 1CA-45, 1CA-49, 1CA-53, 1CA-57, 1CA-61, 1CA-65 2CA-37, 2CA-41, 2CA-45, 2CA-49, 2CA-53, 2CA-57, 2CA-61, 2CA-65
Flow Diagram:	MCFD-1592-1.0, MCFD-2592-1.0
Code Category:	C
ASME Class:	2
Function:	Check flow from the steam generators to Auxiliary Feedwater. Open to allow Auxiliary Feedwater supply to the Steam Generators.
Test Requirement:	Full Stroke Exercise Open, Close - Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	Full stroke testing these valves during power operations would unnecessarily thermal shock the steam generators and feedwater piping.
Test Alternative & Frequency:	Valves will be full stroke exercised at cold shutdown. Closure will be verified quarterly.

Justification for Deferral

Item Number:	MC-CA-02
Valve:	1CA-165, 1CA-166
Flow Diagram:	MCFD-1592-1.1
Code Category:	C
ASME Class:	3
Function:	Prevents backflow from Auxiliary Feedwater System to Nuclear service Water System until the associated EMOs are closed. EMOs are powered from the same train they serve. Must open to allow assured makeup flow to CA from RN system.
Test Requirement:	Full Stroke Exercise Open, Close - Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	Neither full nor partial flow can be put through these valves without contaminating the Auxiliary Feedwater System with raw water. No means exist for alternate testing techniques using air or any other medium. No means exist to test for proper closure without contaminating the Auxiliary Feedwater System with raw water. These valves will not be tested during cold shutdown because sample disassembly is required.
Test Alternative & Frequency:	At least one of these two valves will be disassembled and full stroked during each refueling outage, and both valves will have been disassembled and full stroked after two consecutive refueling outages. Failure of one valve to properly full stroke during a refueling outage will result in the remaining valves being disassembled and full stroked during that outage. Sample disassembly will also be used to verify proper closure of valves.

Justification for Deferral

Item Number: MC-CA-03

Valve: 1CA-8, 1CA-10, 1CA-12
2CA-8, 2CA-10, 2CA-12

DELETED BY REVISION 25
12/31/98

Justification for Deferral

Item Number:	MC-CA-04
Valve:	1CA-7AC, 1CA-9B, 1CA-11A 2CA-7A, 2CA-9B, 2CA-11A
Flow Diagram:	MCFD-1592-1.1, MCFD-2592-1.1
Code Category:	B
ASME Class:	3
Function:	Closed to provide train separation between assured makeup source and non-safety piping after CA suction is aligned to RN.
Test Requirement:	Full Stroke Exercise Closed - Quarterly
Basis for Deferral:	Stroke testing the valves on a quarterly frequency requires that operators rack out the associated pump breaker or isolate and disable the steam supply isolation valve to the CA pump turbine. This action is considered necessary to protect the pump from damage in the event it receives a start signal during the period when the pump suction isolation valve is closed. This is considered sufficient justification to defer testing to a shutdown frequency.
Test Alternative & Frequency:	Valves will be full stroke exercised at cold shutdown.

Justification for Deferral

Item Number:	MC-CF-01
Valve:	1CF-26AB, 1CF-28AB, 1CF-30AB, 1CF-35AB 2CF-26AB, 2CF-28AB, 2CF-30AB, 2CF-35AB
Flow Diagram:	MCFD-1591-1.1, MCFD-2591-1.1
Code Category:	B
ASME Class:	2
Function:	Provide feedwater and containment isolation.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Closure of these valves would isolate the Steam Generator feedwater which could result in a severe transient in the Steam Generator, resulting in a Unit trip.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-CF-02
Valve:	1CF-17AB, 1CF-20AB, 1CF-23AB, 1CF-32AB 2CF-17AB, 2CF-20AB, 2CF-23AB, 2CF-32AB
Flow Diagram:	MCFD-1591-1.1, MCFD-2591-1.1
Code Category:	B
ASME Class:	NA
Function:	Feedwater control.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Closure of these valves would isolate the Steam Generator feedwater which could result in a severe transient in the Steam Generator, resulting in a Unit trip.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-CF-03
Valve:	1CF-126B, 1CF-127B, 1CF-128B, 1CF-129B 2CF-126B, 2CF-127B, 2CF-128B, 2CF-129B
Flow Diagram:	MCFD-1591-1.1, MCFD-2591-1.1
Code Category:	B
ASME Class:	2
Function:	Opens to provide startup feedwater supply to the steam generators.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Cycling valves during power operation could induce unwanted transients in the steam generators. This would result in an increase in flow to the main feedwater nozzles causing vibrations in the preheater section of the steam generators.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-CF-04
Valve:	1CF-104AB, 1CF-105AB, 1CF-106AB, 1CF-107AB 2CF-104AB, 2CF-105AB, 2CF-106AB, 2CF-107AB
Flow Diagram:	MCFD-1591-1.1, MCFD-2591-1.1
Code Category:	B
ASME Class:	NA
Function:	Provides tempering flow to the steam generators.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Closing these valves during operation would result in a feedwater transient and could result in loss of Steam Generator level control, causing a Unit trip. These valves are normally open at power.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number: MC-CF-05

Valve: 1CF-152, 1CF-154, 1CF-156, 1CF-158
2CF-152, 2CF-154, 2CF-156, 2CF-158

DELETED BY REVISION 25
12/31/98

Justification for Deferral

Item Number:	MC-CF-06
Valve:	1CF-118, 1CF-119, 1CF-120, 1CF-121 2CF-118, 2CF-119, 2CF-120, 2CF-121
Flow Diagram:	MCFD-1591-1.1, MCFD-2591-1.1
Code Category:	C
ASME Class:	2
Function:	Opens to allow feedwater flow to the Steam Generators. Closes to form pressure boundary for maintaining Steam Generator inventory. The open function is not within the Scope of OM-10.
Test Requirement:	Full Stroke Exercise Close - Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	During normal operation, there is constant flow through these valves. The required test is performed while the Steam Generators are in wet-layup, with the main condensate system in service. The piping upstream of the check valve is depressurized, while the downstream side is pressurized. The check valves are verified to prevent gross diversion of flow. These conditions cannot be obtained with the unit operating.
Test Alternative & Frequency:	Valves will be full stroke exercised at cold shutdown.

Justification for Deferral

Item Number:	MC-FW-01
Valve:	1FW-27A 2FW-27A
Flow Diagram:	MCFD-1571-1.0, MCFD-2571-1.0
Code Category:	B
ASME Class:	2
Function:	Isolates low pressure injection from the Refueling Water Storage Tank.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Closure of this valve during normal power operation would render all low pressure injection inoperable. This valve is opened and power removed above Mode 4 per Technical Specification.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-FW-02
Valve:	1FW-28 2FW-28
Flow Diagram:	MCFD-1571-1.0, MCFD-2571-1.0
Code Category:	C
ASME Class:	2
Function:	Opens to allow low pressure injection flow. Closes to prevent reverse flow to the Refueling Water Storage Tank, thereby preventing pressurization of the tank.
Test Requirement:	Full Stroke Exercise Open, Close - Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	Valve cannot be full stroked during power operation since the only full flow path is into the RCS by the Residual Heat Removal pumps. These pumps cannot overcome RCS system pressure.
Test Alternative & Frequency:	Valve will be full stroke exercised at cold shutdown.

Justification for Deferral

Item Number:	MC-FW-03
Valve:	1FW-74 2FW-74
Flow Diagram:	MCFD-1571-1.0, MCFD-2571-1.0
Code Category:	C
ASME Class:	3
Function:	Must close to provide a pressure boundary for the assured makeup (Nuclear Service Water) to the Spent Fuel Pool.
Test Requirement:	Full Stroke Exercise Close - Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	The system does not provide a means to verify valve closure.
Test Alternative & Frequency:	Valve will be disassembled and inspected to verify closure at refueling outage frequency. However, due to the increased risk of closing the path during refueling outage, along with hardship of performing during refueling outages, it is being done on innage basis.

Justification for Deferral

Item Number:	MC-IA-01
Valve:	1IA-5260, 1IA-5270, 1IA-5280, 1IA-5290, 1IA-5300, 1IA-5310, 1IA-5320, 1IA-5330, 1IA-5340, 1IA-5350, 1IA-5360, 1IA-5370, 1IA-5380, 1IA-5390 2IA-5260, 2IA-5270, 2IA-5280, 2IA-5290, 2IA-5300, 2IA-5310, 2IA-5320, 2IA-5330, 2IA-5340, 2IA-5350, 2IA-5360, 2IA-5370, 2IA-5380, 2IA-5390
Flow Diagram:	MCFD-1499-IA1, MCFD-2499-IA1
Code Category:	A,C
ASME Class:	2 & 3
Function:	1(2)IA-5260, 5270, 5280, 5290, 5300, 5310, 5320 and 5330 prevent loss of air from receiver tank on each personnel airlock door in the event of loss of instrument air supply to door seals. These check valves form a pressure boundary for the inflatable seals. 1(2)IA-5340 and 5350 provide the inside containment isolation barrier in the event of a break on the flexible hose connection on the air supply to the door seals. The outside isolation valves are 1(2)IA-5080 and 5160. These check valves are on the auxiliary building side of the airlocks. 1(2)IA-5360, 5370, 5380 and 5390 provide double isolation on the reactor building side of the airlocks for the pressure relief line.
Test Requirement:	Full Stroke Exercised - Closed Leak-Rate Test to Appendix J Requirements - Refueling 1) Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1. 2) Leak test once per 2 years in accordance with OMa-1988 Part 10, 4.2.2.2. 3) Leak test in accordance with Technical Specification.
Basis for Deferral:	These valves cannot be practically tested during operation due to the design of the system.
Test Alternative & Frequency:	Valves will be verified closed by leak test performed in accordance with 10CFR50 Appendix J at a six month frequency per Technical Specification.

Justification for Deferral

Item Number:	MC-KC-01
Valve:	1KC-424B, 1KC-425A 2KC-424B, 2KC-425A
Flow Diagram:	MCFD-1573-3.1, MCFD-2573-3.1
Code Category:	A
ASME Class:	2
Function:	Provide containment isolation for penetration M-320.
Test Requirement:	Measure Full Stroke Time - Quarterly Leak-Rate Test to Appendix J Requirements - Refueling Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Failure of either of these valves in the closed position during testing would inhibit the normal flow path from the reactor coolant pump motor coolers. This action could result in damage to the NC pumps. Within 15 to 30 minutes, the NC Pumps would be tripped on high bearing temperature, and an abnormal shutdown (natural circulation) would be required.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-KC-02
Valve:	1KC-338B 2KC-338B
Flow Diagram:	MCFD-1573-3.1, MCFD-2573-3.1
Code Category:	A
ASME Class:	2
Function:	Provide containment isolation for penetration M-327.
Test Requirement:	Measure Full Stroke Time - Quarterly Leak-Rate Test to Appendix J Requirements - Refueling Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Failure of this valve in the closed position during testing could result in damage to the NC pumps. Within 15 to 30 minutes, the NC Pumps would be tripped on high bearing temperature, and an abnormal shutdown (natural circulation) would be required.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-KC-03
Valve:	1KC-332B, 1KC-333A 2KC-332B, 2KC-333A
Flow Diagram:	MCFD-1573-3.1, MCFD-2573-3.1
Code Category:	A
ASME Class:	2
Function:	Provide containment isolation for penetration M-355.
Test Requirement:	Measure Full Stroke Time - Quarterly Leak-Rate Test to Appendix J Requirements - Refueling Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Failure of one of these valves in the closed position during testing would inhibit flow through the reactor coolant drain tank heat exchanger. No alternate flowpath for cooling water to the heat exchanger exists. Without flow to the heat exchanger, the drain tank would become over pressurized and steam would be released. Such a test would not be conservative, since Reactor Coolant would be released. This test would challenge the overpressure protection of a Reactor Coolant System component. It is concluded therefore that per NUREG-1482 Section 3.1.1 that these valves should be excluded from quarterly testing.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-KC-04
Valve:	1KC-320A 2KC-320A
Flow Diagram:	MCFD-1573-3.1, MCFD-2573-3.1
Code Category:	A
ASME Class:	2
Function:	Provide containment isolation for penetration M-376.
Test Requirement:	Measure Full Stroke Time - Quarterly Leak-Rate Test to Appendix J Requirements - Refueling Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Failure of this valve in the closed position during testing would inhibit flow through the reactor coolant drain tank heat exchanger. No alternate flowpath for cooling water to the heat exchanger exists. Without flow to the heat exchanger, the drain tank would become over pressurized and steam would be released. Such a release of Reactor Coolant makes this test nonconservative and would challenge the overpressure protection of a Reactor Coolant System component. It is concluded therefore that per NUREG-1482 Section 3.1.1 that this valve should be excluded from quarterly testing.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number: MC-KC-05

Valve: 1KC-280
2KC-280

DELETED BY REVISION 26
08/01/02

Justification for Deferral

Item Number:	MC-KC-06
Valve:	1KC-322 2KC-322
Flow Diagram:	MCFD-1573-3.1, MCFD-2573-3.1
Code Category:	A,C
ASME Class:	2
Function:	Provides containment isolation on penetration M-376.
Test Requirement:	Full Stroke Exercise Close - Quarterly Leak-Rate Test to Appendix J Requirements - Refueling 1) Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1. 2) Leak test once per 2 years in accordance with OMa-1988 Part 10, 4.2.2.2.
Basis for Deferral:	This valve cannot be practically tested during operation due to the design of the system. Testing during power operation is impractical for this valve since it is located inside containment, as well as the test connection needed to test it. During cold shutdowns, this testing would involve work inside containment, possibly with high radiation levels.
Test Alternative & Frequency:	Valve will be verified closed by leak test performed in accordance with 10CFR50 Appendix J at refueling outage frequency.

Justification for Deferral

Item Number: MC-KC-07

Valve: 1KC-279
2KC-279

DELETED BY REVISION 26
08/01/02

Justification for Deferral

Item Number:	MC-KC-08
Valve:	1KC-340 2KC-340
Flow Diagram:	MCFD-1573-3.1, MCFD-2573-3.1
Code Category:	A,C
ASME Class:	2
Function:	Provides containment isolation on penetration M-327.
Test Requirement:	Full Stroke Exercise Close - Quarterly Leak-Rate Test to Appendix J Requirements - Refueling 1) Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1. 2) Leak test once per 2 years in accordance with OMa-1988 Part 10, 4.2.2.2.
Basis for Deferral:	The system design does not provide a means of verifying valve closure upon flow reversal. Testing during power operation is impractical for this valve since it is located inside containment, as well as the test connection needed to test it. During cold shutdowns, this testing would involve work inside containment, possibly with high radiation levels.
Test Alternative & Frequency:	Valve will be verified closed by leak test performed in accordance with 10CFR50 Appendix J at refueling outage frequency.

Justification for Deferral

Item Number: MC-KC-09

Valve: 1KC-47
2KC-47

DELETED BY REVISION 26
08/01/02

Justification for Deferral

Item Number:	MC-NB-01
Valve:	1NB-262 2NB-262
Flow Diagram:	MCFD-1556-3.0 MCFD-2556-3.0
Code Category:	A,C
ASME Class:	2
Function:	Provides containment isolation on penetration M-259.
Test Requirement:	Full Stroke Exercise Close - Quarterly Leak-Rate Test to Appendix J Requirements - Refueling 1) Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1. 2) Leak test once per 2 years in accordance with OMa-1988 Part 10, 4.2.2.2.
Basis for Deferral:	The system design does not provide a means of verifying valve closure upon flow reversal. Testing during power operation is impractical for this valve since it is located inside containment, as well as the test connection needed to test it. During cold shutdowns, this testing would involve work inside containment, possibly with high radiation levels.
Test Alternative & Frequency:	Valve will be verified closed by leak test performed in accordance with 10CFR50 Appendix J at refueling outage frequency.

Justification for Deferral

Item Number: MC-NB-02

Valve: 2NB-438

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Justification for Deferral

Item Number:	MC-NB-03
Valve:	1NB-103
Flow Diagram:	MCFD-1556-1.1
Code Category:	C
ASME Class:	3
Function:	Must open to provide a pressure relief path from both unit VCTs and for overflow of both unit BAT and RMWSTs.
Test Requirement:	Full Stroke Exercise Open - Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	The full stroke test of the check valve performed via PT/0/A/4203/4, and requires alignment of either unit KF pump purification flow to the RHT (350 gpm). The test alignment flowpath thru 1NB-103 establishes back-pressure on both Unit VCT relief paths and the BAT/RMWST overflow paths. As such, inputs to both unit VCTs, BATs and RMWSTs are closely monitored and limited during the performance of the test. Limiting VCT inputs can present a challenge for either unit at EOL, when dilution requirements are high. The test alignment further creates elevated relief header back-pressure, which could result in a momentarily increase in VCT relief valve lift settings. Thus it is desirable to minimize the impact and risk posed by this testing, to a single unit and defer testing to Unit 2 pre-outage. Furthermore, the testing results in depletion of ~4000 gallons Spent fuel storage volume each time it is performed. This water volume must then be reprocessed with the recycle evaporator or sent to waste. Recycling of the SFP volume is undesirable, in-that it concentrates Silica (Boroflex degradation) within the BAT. Silica is then conveyed to the FWST and primary thru make-up. FWST contents must then be depleted to replenish the spent fuel pool. The foregoing discussion provides sufficient justification to defer 1NB-103 full stroke open testing to a shutdown frequency.
Test Alternative & Frequency:	Valve will be full stroke tested to verify opening at refueling outage frequency.

Justification for Deferral

Item Number:	MC-NC-01
Valve:	1NC-32B, 1NC-34A, 1NC-36B 2NC-32B, 2NC-34A, 2NC-36B
Flow Diagram:	MCFD-1553-2.0, MCFD-2553-2.0
Code Category:	B
ASME Class:	1
Function:	Reactor Coolant System PORV. Opens to relieve pressure for the primary system.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	In the event that an NC PORV block is leaking, stroking the respective PORV is impractical because it would subject a system to pressure in excess of design pressure. This could quickly fill the NCDT and challenge relief protection.
Test Alternative & Frequency:	Stroke time testing will be performed at cold shutdown and in all cases prior to entering LTOP conditions in accordance with Generic Letter 90-06. Testing will not be required more often than once per quarter as defined in OMa-1988 Part 10, 4.2.1.1.

Justification for Deferral

Item Number:	MC-NC-02
Valve:	1NC-272AC, 1NC-273AC, 1NC-274B, 1NC-275B 2NC-272AC, 2NC-273AC, 2NC-274B, 2NC-275B
Flow Diagram:	MCFD-1553-2.1, MCFD-2553-2.1
Code Category:	B
ASME Class:	1
Function:	Reactor vessel head vent.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Opening these valves at full pressure could cause damage to the valve seating surfaces. A reactor coolant leak could be caused.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number: MC-NC-03

Valve: 1NC-259, 1NC-261
2NC-259, 2NC-261

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Justification for Deferral

Item Number:	MC-NC-04
Valve:	1NC-59
Flow Diagram:	MCFD-1553-2.1
Code Category:	C
ASME Class:	2
Function:	Must open to allow various relief valves on ECCS systems to relieve to the Pressurizer Relief Tank.
Test Requirement:	Full Stroke Exercise Open - Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	The system design does not provide a sufficient means of verifying full opening of the check valve.
Test Alternative & Frequency:	Valve will be disassembled and inspected to verify full stroke opening at refueling outage frequency.

Justification for Deferral

Item Number:	MC-NC-05
Valve:	1NC-284
Flow Diagram:	MCFD-1553-2.1
Code Category:	C
ASME Class:	NA
Function:	Must open to allow various relief valves on ECCS systems to relieve to the Pressurizer Relief Tank.
Test Requirement:	Full Stroke Exercise Open - Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	The system design does not provide a sufficient means of verifying full opening of the check valve.
Test Alternative & Frequency:	Valve will be disassembled and inspected to verify full stroke opening at refueling outage frequency.

Justification for Deferral

Item Number:	MC-NC-06
Valve:	1NC-31B, 1NC-33A, 1NC-35B 2NC-31B, 2NC-33A, 2NC-35B
Flow Diagram:	MCFD-1553-2.0, MCFD-2553-2.0
Code Category:	B
ASME Class:	1
Function:	Must isolate PORVs.
Test Requirement:	Stroke Time Closed-Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	In the event that an NC PORV is leaking, stroking the respective PORV block valve is impractical because it would subject a system to pressure in excess of design pressure. This could quickly fill the NCDT and challenge relief protection.
Test Alternative & Frequency:	Valves will be stroke timed at cold shutdown in the event of respective leaking NC PORV.

Justification for Deferral

Item Number:	MC-ND-01
Valve:	1ND-1B, 1ND-2AC 2ND-1B, 2ND-2AC
Flow Diagram:	MCFD-1561-1.0, MCFD-2561-1.0
Code Category:	A
ASME Class:	1
Function:	Provides suction for Residual Heat Removal pumps during normal cooldown.
Test Requirement:	Measure Full Stroke Time - Quarterly Leak Test Per Tech Spec Requirements 1) Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1. 2) Leak test once per 2 years in accordance with OMa-1988 Part 10, 4.2.2.3.
Basis for Deferral:	These valves have an interlock which prevents their opening when the Reactor Coolant System pressure is greater than 385psig.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown. Valve will be leak tested in accordance with Technical Specification.

Justification for Deferral

Item Number:	MC-ND-02
Valve:	1ND-58A 2ND-58A
Flow Diagram:	MCFD-1561-1.0, MCFD-2561-1.0
Code Category:	B
ASME Class:	2
Function:	Provides suction to the Centrifugal Charging Pumps and Safety Injection Pumps from the Residual Heat Removal system.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Opening 1(2)ND-58A would seat check valve 1(2)NV-223 (FWST to Charging Pump suction) closed, so that if 1(2)ND-58A failed in the open position, both trains of NV would be inoperable.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-ND-03
Valve:	1ND-15B, 1ND-30A 2ND-15B, 2ND-30A
Flow Diagram:	MCFD-1561-1.0, MCFD-2561-1.0
Code Category:	B
ASME Class:	2
Function:	ND Heat Exchanger Outlet Crossover Block Valves.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	One of the ECCS safety analysis assumptions is that each train of ND can supply flow to all four cold legs. If either of these valves failed closed during testing then only two cold legs could be supplied by each train of ND. This would make both trains of ND inoperable. Power cannot be removed from these valves, since at least one of them must be closed for cold leg recirc. If power was removed from one valve, a single failure on the opposite train would disable isolation of ND to the cold legs when needed (this isolation is needed for adequate cold leg recirc flow).
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-ND-04
Valve:	1ND-70 2ND-70
Flow Diagram:	MCFD-1561-1.0, MCFD-2561-1.0
Code Category:	C
ASME Class:	2
Function:	Opens to provide suction to the Centrifugal Charging Pumps and Safety Injection Pumps from the Residual Heat Removal system. Closes to provide suction pressure boundary for the Centrifugal Charging Pumps and Safety Injection Pumps
Test Requirement:	Full Stroke Exercise Open, Close - Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	Valve cannot be full stroked during power operation since 1(2)ND-58A would have to be opened, rendering both trains of ND inoperable. Additionally, the flow requirements to full stroke this valve cannot be achieved with the Reactor Coolant System pressurized. Opening 1(2)ND-58A would seat check valve 1(2)NV-223 (FWST to Charging Pump suction) closed, so that if 1(2)ND-58A failed in the open position, both trains of NV would be inoperable. Manually closing 1(2)ND-29, a fail-open valve, would be impractical.
Test Alternative & Frequency:	Valve will be full stroke exercised at cold shutdown.

Justification for Deferral

Item Number:	MC-ND-05
Valve:	1ND-71 2ND-71
Flow Diagram:	MCFD-1561-1.0, MCFD-2561-1.0
Code Category:	C
ASME Class:	2
Function:	Opens to provide suction to the Centrifugal Charging Pumps and Safety Injection Pumps from the Residual Heat Removal system. Closes to provide suction pressure boundary for the Centrifugal Charging Pumps and Safety Injection Pumps
Test Requirement:	Full Stroke Exercise Open, Close - Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	Valve cannot be full stroked during power operation since 1(2)NI-136B would have to be opened, rendering both trains of ND inoperable. Additionally, the flow requirements to full stroke this valve cannot be achieved with the Reactor Coolant System pressurized. Opening 1(2)ND-136B would seat check valve 1(2)NV-223 (FWST to Charging Pump suction) closed, so that if 1(2)ND-136B failed in the open position, both trains of NV would be inoperable. Manually closing 1(2)ND-14, a fail-open valve, would be impractical.
Test Alternative & Frequency:	Valve will be full stroke exercised at cold shutdown.

Justification for Deferral

Item Number:	MC-ND-06
Valve:	1ND-8, 1ND-23
Flow Diagram:	MCFD-1561-1.0
Code Category:	C
ASME Class:	2
Function:	Residual Heat Removal pump discharge check valve.
Test Requirement:	Full Stroke Exercise Open, Close - Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	Valves cannot be full stroke exercised during power operation since the only full flow path is into the Reactor Coolant System and the ND pumps cannot overcome RCS pressure.
Test Alternative & Frequency:	Valve will be full stroke exercised at cold shutdown. Valves will be partially stroked quarterly. The opposite train valves will be tested closed quarterly except when the opposite train of ND is in service.

Justification for Deferral

Item Number:	MC-ND-07
Valve:	1ND-4B, 1ND19A 2ND-4B, 2ND19A
Flow Diagram:	MCFD-1561-1.0, MCFD-2561-1.0
Code Category:	B
ASME Class:	2
Function:	ND Pump Suction Isolation Valve
Test Requirement:	Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10,4.2.1.1.
Basis for Deferral:	Operator action would be required to restore function if accident occurred during testing. Also relief protection is blocked. The only other option is racking open the pump breakers. These are all basis for deferral per NUREG 1482.
Test Alternative & Frequency:	Valves will be stroke time closed at cold shutdown frequency.

Justification for Deferral

Item Number:	MC-NF-01
Valve:	1NF-229 2NF-229
Flow Diagram:	MCFD-1558-4.0, MCFD-2558-4.0
Code Category:	A,C
ASME Class:	2
Function:	Provides containment isolation on penetration M-373.
Test Requirement:	Full Stroke Exercise Close - Quarterly Leak-Rate Test to Appendix J Requirements - Refueling 1) Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1. 2) Leak test once per 2 years in accordance with OMa-1988 Part 10,4.2.2.2. 10CFR50 Appendix J requires measurement of local leak rate using air or nitrogen.
Basis for Deferral:	The system design does not provide a means of verifying valve closure upon flow reversal. Testing during power operation is impractical for this valve since it is located inside containment, as well as the test connection needed to test it. During cold shutdowns, this testing would involve work inside containment, possibly with high radiation levels.
Test Alternative & Frequency:	1) Valve will be verified closed by leak test performed in accordance with 10CFR50 Appendix J at refueling outage frequency. 2) Leak Rate testing of the valve will be performed per Technical Specification.

Justification for Deferral

Item Number:	MC-NF-02
Valve:	1NF-228A, 1NF-233B, 1NF-234A 2NF-228A, 2NF-233B, 2NF-234A
Flow Diagram:	MCFD-1558-4.0, MCFD-2558-4.0
Code Category:	A
ASME Class:	2
Function:	Closed to provide containment isolation
Test Requirement:	Stroke Time – Quarterly Leak-Rate Test to Appendix J Requirements - Refueling Stroke time test in accordance with Oma-1988 Part 10, 4.2.1.1
Basis for Deferral:	Stroke time testing the valves on a quarterly frequency requires that operators shutdown the glycol pumps and chillers to prevent equipment damage. This is considered a hardship as described in NUREG-1482 Section 3.1.1 which is justification for deferring testing to Cold Shutdown. Furthermore, if any of the three valves were to fail to open during stroke time testing, the ice condenser would begin to heat up, potentially compromising the safety function of the ice bed. The NF system normally provides continuous ice condenser cooling so that the ice will be ready to perform it's required safety function if necessary in the event of a design basis accident. Interrupting this continuous function to perform quarterly stroke testing could jeopardize the ability of the ice condenser to perform it's safety function. This is considered sufficient justification to defer testing to a shutdown frequency per NUREG-1482 Section 3.1.1.
Test Alternative & Frequency:	Valves will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-NI-01
Valve:	1NI-9A, 1NI-10B 2NI-9A, 2NI-10B
Flow Diagram:	MCFD-1562-1.0, MCFD-2562-1.0
Code Category:	B
ASME Class:	2
Function:	Flowpath for Centrifugal Charging Pumps to Reactor Coolant System Cold Legs.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Opening either of these valves during operation would increase the charging flow into the Reactor Coolant System resulting in an increase of pressure and a rapid change in the primary system boron concentration. This could create a transient and possible unit shutdown.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-NI-02
Valve:	1NI-100B 2NI-100B
Flow Diagram:	MCFD-1562-3.0, MCFD-2562-3.0
Code Category:	B
ASME Class:	2
Function:	Flowpath from the Refueling Water Storage Tank to the Safety Injection Pump suction.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Closing this valve during operation would render both trains of Safety Injection inoperable. This valve is opened and power removed above Mode 4 per Technical Specification.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-NI-03
Valve:	1NI-147A, 1NI115B 2NI-147A, 2NI115B
Flow Diagram:	MCFD-1562-3.0, MCFD-2562-3.0
Code Category:	B
ASME Class:	2
Function:	1(2)NI-147A provides flowpath for both trains of Safety Injection recirculation line to the Refueling Water Storage Tank. 1(2)NI-115B provides flowpath for A train of Safety Injection recirculation line to the Refueling Water Storage Tank.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Closing either of these valve during power operation renders both trains of Safety Injection inoperable. 1(2)NI-147A is open with power removed above Mode 4 per Technical Specification. In the event of a loss of offsite power with the loss of 1(2)B diesel generator as the single failure, 1(2)NI-115B would not open, rendering A Train NI inoperable (due to loss of miniflow path). B Train NI would already be inoperable due to the single failure.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-NI-04
Valve:	1NI-121A, 1NI-152B 2NI-121A, 2NI-152B
Flow Diagram:	MCFD-1562-3.0, MCFD-2562-3.0
Code Category:	B
ASME Class:	2
Function:	Isolates Safety Injection flow to the hot legs.
Test Requirement:	Measure Full Stroke Time – Quarterly Stroke time test in accordance with Oma-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Previous justification for deferring testing on these valves has been based on the valves being closed with power removed at all times above Mode 4. Although these valves are normally administratively closed with power removed above Mode 4, an acceptable method of stroking these valves after performing MOV PMs on-line has been considered (Ref. PIP M-99-5538). In order to maintain operability of the opposite train NI, this requires: a) isolating the associated cold leg isolation valve and b) racking in the breaker to allow stroking the hot leg isolation valve. The annual PM generally does not require that the valve be stroked while the 5 year PM does require post maintenance testing. While it would be possible to stroke time test these valves on a quarterly frequency, this would require similar valve isolation and breaker manipulation as the much less frequent PMs. Such requirements are considered a hardship as described in NUREG-1482 Section 3.1.1 which is justification for deferring testing to Cold Shutdown.
Test Alternative & Frequency:	Valves will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-NI-05
Valve:	1NI-162A 2NI-162A
Flow Diagram:	MCFD-1562-3.1, MCFD-2562-3.1
Code Category:	B
ASME Class:	2
Function:	Isolates Safety Injection flow to the cold legs.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	This valve is opened and power removed above Mode 4 per Technical Specification.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-NI-06
Valve:	1NI-103A 2NI-103A
Flow Diagram:	MCFD-1562-3.0, MCFD-2562-3.0
Code Category:	B
ASME Class:	2
Function:	Provides A Train Safety Injection Pump suction flow from the Refueling Water Storage Tank. Also provides a flowpath for B Train Residual Heat Removal pump discharge to B Train Chemical and Volume Control pump suction.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Closing this valve during power operations degrades both trains of Chemical and Volume Control. In the event of a loss of offsite power with the loss of 1(2)A diesel generator as the single failure when the valve was closed, B Train NV would be lost for sump recirc mode. Since that could happen as fast as 30 minutes and would then be inaccessible due to dose rates, credit could not be taken for manually opening 1(2)NI-103A in this event. A Train NV would already be inoperable due to the single failure.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-NI-07
Valve:	1NI-173A, 1NI-178B 2NI-173A, 2NI-178B
Flow Diagram:	MCFD-1562-3.1, MCFD-2562-3.1
Code Category:	B
ASME Class:	2
Function:	Provides flowpath for Residual Heat Removal to the cold legs.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	These valves are opened and power removed above Mode 4 per Technical Specification.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-NI-08
Valve:	1NI-334B 2NI-334B
Flow Diagram:	MCFD-1562-3.0, MCFD-2562-3.0
Code Category:	B
ASME Class:	2
Function:	Provides flowpath from B Train of Residual Heat Removal to B Train of Chemical and Volume Control, and from A Train of Residual Heat Removal to A Train of Safety Injection.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Closing this valve during power operation degrades both trains of Safety Injection. With the single failure of 1(2)B diesel generator, Train A of Safety Injection, which is provided suction from Residual Heat Removal via 1(2)NI-334B or 1(2)NI-136B, would be inoperable (since 1(2)NI-136B is normally closed). Train B of Safety Injection would already be inoperable due to the single failure.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-NI-09
Valve:	1NI-183B 2NI-183B
Flow Diagram:	MCFD-1562-3.0, MCFD-2562-3.1
Code Category:	B
ASME Class:	2
Function:	Isolates Residual Heat Removal flow to the hot legs.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	This valve is closed and power removed above Mode 4 per Technical Specification.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-NI-10
Valve:	1NI-184B, 1NI-185A 2NI-184B, 2NI-185A
Flow Diagram:	MCFD-1562-3.1, MCFD-2562-3.0
Code Category:	B
ASME Class:	2
Function:	Provides flowpath from the Containment Sump to the Residual Heat Removal Pump and the Containment Spray Pump suction.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Opening these valves during power operation would allow water to enter lower containment. To prevent this, 1(2)FW-27A would have to be closed, rendering both trains of Residual Heat Removal inoperable. Voids in suction piping would be created requiring fill and vent operations to prevent ECCS pump damage.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-NI-11
Valve:	1NI-332A, 1NI-333B 2NI-332A, 2NI-333B
Flow Diagram:	MCFD-1562-3.0, MCFD-2562-3.0
Code Category:	B
ASME Class:	2
Function:	Provides flowpath to Centrifugal Charging Pumps and Safety Injection Pumps from Residual Heat Removal Pumps during recirculation phase.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Opening these valves during power operations requires 1(2)NI-334B to be closed to prevent aligning FWST to the suction of the Centrifugal Charging Pumps. Injecting FWST boron concentrated water into the Reactor Coolant System would induce a transient. Closing 1(2)NI-334B degrades both trains of Safety Injection (With the single failure of 1(2)B diesel generator, Train A of Safety Injection, which is provided suction from Residual Heat Removal via 1(2)NI-334B or 1(2)NI-136B, would be inoperable (since 1(2)NI-136B is normally closed). Train B of Safety Injection would already be inoperable due to the single failure).
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-NI-12
Valve:	1NI-15, 1NI-17, 1NI-19, 1NI-21, 1NI-347, 1NI-348, 1NI-349, 1NI-354 2NI-15, 2NI-17, 2NI-19, 2NI-21, 2NI-347, 2NI-348, 2NI-349, 2NI-354
Flow Diagram:	MCFD-1562-1.0, MCFD-2562-1.0
Code Category:	C
ASME Class:	1
Function:	Opens to allow flow to the cold legs from the Centrifugal Charging Pumps.
Test Requirement:	Full Stroke Exercise Open - Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	Injecting flow through these valves from the Centrifugal Charging Pumps during power operations could result in unnecessary thermal shock to the injection nozzles.
Test Alternative & Frequency:	Valve will be full stroke exercised at cold shutdown.

Justification for Deferral

Item Number:	MC-NI-13
Valve:	1NI-12 2NI-12
Flow Diagram:	MCFD-1562-1.0, MCFD-2562-1.0
Code Category:	C
ASME Class:	2
Function:	Flowpath for Centrifugal Charging Pumps to Reactor Coolant System cold legs.
Test Requirement:	Full Stroke Exercise Open - Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	Injecting flow through this valve from the Centrifugal Charging Pumps during power operations could result in unnecessary thermal shock to the injection nozzles.
Test Alternative & Frequency:	Valve will be full stroke exercised at cold shutdown.

Justification for Deferral

Item Number:	MC-NI-14
Valve:	1NI-101 2NI-101
Flow Diagram:	MCFD-1562-3.0, MCFD-2562-3.0
Code Category:	C
ASME Class:	2
Function:	Opens to allow flow from the Refueling Water Storage Tank to the Safety Injection Pumps. Closes to provide suction pressure boundary for these pumps from the Residual Heat Removal Pump discharge.
Test Requirement:	Full Stroke Exercise Open, Close - Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	Valve cannot be full stroke tested during power operation since the Safety Injection Pumps cannot overcome Reactor Coolant System pressure. Closure cannot be verified quarterly since both trains of Residual Heat Removal would be rendered inoperable.
Test Alternative & Frequency:	Valve will be full stroke exercised at cold shutdown. Valve will be partial stroked quarterly.

Justification for Deferral

Item Number:	MC-NI-15
Valve:	1NI-116, 1NI-148 2NI-116, 2NI-148
Flow Diagram:	MCFD-1562-3.0, MCFD-2562-3.0
Code Category:	C
ASME Class:	2
Function:	Pump discharge check valve, opens to allow Safety Injection Flow. Closes to prevent opposite train flow losses.
Test Requirement:	Full Stroke Exercise Open, Close - Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	Valve cannot be full or partial stroke tested during power operation since the Safety Injection Pumps cannot overcome Reactor Coolant System pressure. The respective train cold leg supply isolation valves (1NI118A, 2NI118A and 1NI150B, 2NI150B) are positioned closed during quarterly pump testing to prevent pressurization of the cold leg injection header and minimize the potential to unseat any primary isolation valves.
Test Alternative & Frequency:	Valve will be full stroke exercised in both directions at cold shutdown.

Justification for Deferral

Item Number:	MC-NI-16
Valve:	1NI-124, 1NI-126, 1NI-128, 1NI-134, 1NI-156, 1NI-157, 1NI-159, 1NI-160 2NI-124, 2NI-126, 2NI-128, 2NI-134, 2NI-156, 2NI-157, 2NI-159, 2NI-160
Flow Diagram:	MCFD-1562-3.0 MCFD-2562-3.0
Code Category:	AC
ASME Class:	1
Function:	1) Opens on flow from the Safety Injection Pumps to the hot legs. 2) Reactor Coolant System pressure boundary.
Test Requirement:	Full Stroke Exercise Open, Close - Quarterly Leak Test Per Tech Spec Requirements 1) Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1. 2) Leak test once per two years in accordance with OMa-1988 Part 10, 4.2.2.3.
Basis for Deferral:	Valves cannot be full or partial stroke tested during power operation since the Safety Injection Pumps cannot overcome Reactor Coolant System pressure.
Test Alternative & Frequency:	Valve will be full stroke exercised at cold shutdown. Leak test in accordance with Technical Specification.

Justification for Deferral

Item Number:	MC-NI-17
Valve:	1NI-165, 1NI-167, 1NI-169, 1NI-171 2NI-165, 2NI-167, 2NI-169, 2NI-171
Flow Diagram:	MCFD-1562-3.1, MCFD-2562-3.1
Code Category:	AC
ASME Class:	1
Function:	1) Opens on flow from the Safety Injection Pumps to the cold legs. 2) Reactor Coolant System pressure boundary.
Test Requirement:	Full Stroke Exercise Open, Close - Quarterly Leak Test Per Tech Spec Requirements 1) Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1. 2) Leak test once per 2 years in accordance with OMa-1988 Part 10, 4.2.2.3.
Basis for Deferral:	Valves cannot be full or partial stroke tested during power operations since the Safety Injection Pumps cannot overcome Reactor Coolant System pressure.
Test Alternative & Frequency:	Valve will be full stroke exercised at cold shutdown. Leak test in accordance with Technical Specification.

Justification for Deferral

Item Number:	MC-NI-18
Valve:	1NI-175, 1NI-176, 1NI-180, 1NI-181
Flow Diagram:	MCFD-1562-3.1
Code Category:	AC
ASME Class:	1
Function:	1) Opens on flow from the Residual Heat Removal Pumps to the cold legs. 2) Reactor Coolant System pressure boundary.
Test Requirement:	Full Stroke Exercise Open, Close - Quarterly Leak Test Per Tech Spec Requirements 1) Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1. 2) Leak test once per two years in accordance with OMa-1988 Part 10, 4.2.2.3.
Basis for Deferral:	Valves cannot be full or partial stroke tested during power operation since the Residual Heat Removal pumps cannot overcome Reactor Coolant System pressure.
Test Alternative & Frequency:	Valve will be full stroke exercised at cold shutdown. Leak test in accordance with Technical Specification.

Justification for Deferral

Item Number: MC-NI-19

Valve: 1NI-125, 1NI-129
2NI-125, 2NI-129

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Justification for Deferral

Item Number:	MC-NI-20
Valve:	1NI-136B 2NI-136B
Flow Diagram:	MCFD-1562-3.0, MCFD-2562-3.0
Code Category:	B
ASME Class:	2
Function:	Provides suction to the Centrifugal Charging Pumps and Safety Injection Pumps from the Residual Heat Removal System.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Opening 1(2)NI-136B would require closing 1(2)NI-135B. This would require Opening the 1(2)NI Pump B breaker. This is basis for deferral in accordance with NUREG-1482.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-NI-21
Valve:	1NI-48 2NI-48
Flow Diagram:	MCFD-1562-2.0, MCFD-2562-2.0
Code Category:	A,C
ASME Class:	2
Function:	Provides containment isolation on penetration M-330.
Test Requirement:	Full Stroke Exercise Close - Quarterly Leak-Rate Test to Appendix J Requirements - Refueling 1) Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1. 2) Leak test once per 2 years in accordance with OMa-1988 Part 10, 4.2.2.2.
Basis for Deferral:	The system design does not provide a means of verifying valve closure upon flow reversal.
Test Alternative & Frequency:	Valve will be verified closed by leak test performed in accordance with 10CFR50 Appendix J at refueling outage frequency.

Justification for Deferral

Item Number:	MC-NI-22
Valve:	1NI-59, 1NI-70, 1NI-81, 1NI-93
Flow Diagram:	MCFD-1562-2.0, MCFD-1562-2.1
Code Category:	A,C
ASME Class:	1
Function:	Opens on flow from the NI cold leg accumulator to the Reactor Coolant System. Reactor Coolant Boundary valve.
Test Requirement:	Full Stroke Exercise Open, Close - Quarterly Leak Test Per Tech Spec Requirements 1) Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1. 2) Leak test once per 2 years in accordance with OMa-1988 Part 10, 4.2.2.3. 3) Leak test in accordance with Technical Specification.
Basis for Deferral:	Valves cannot be full or partial stroked during power operation since the accumulator pressure is ~600 psig and cannot overcome RCS pressure. Valves will not be tested during cold shutdown since acoustic monitored full stroke must be accomplished during No-Mode.
Test Alternative & Frequency:	Valves will be acoustic monitored full stroke open at refueling. Valves will be verified closed by leak test performed in accordance with Technical Specification.

Justification for Deferral

Item Number:	MC-NI-23
Valve:	1NI-436 2NI-436
Flow Diagram:	MCFD-1562-2.1, MCFD-2562-2.1
Code Category:	A,C
ASME Class:	2
Function:	Provides containment isolation and thermal over pressurization protection for penetration M-321.
Test Requirement:	Full Stroke Exercise Close - Quarterly Leak-Rate Test to Appendix J Requirements - Refueling 1) Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1. 2) Leak test once per 2 years in accordance with OMa-1988 Part 10, 4.2.2.2.
Basis for Deferral:	The system design does not provide a means of verifying valve closure upon flow reversal. Testing during power operation is impractical for this valve since it is located inside containment, as well as the test connection needed to test it. During cold shutdowns, this testing would involve work inside containment, possibly with high radiation levels.
Test Alternative & Frequency:	Valve will be verified closed by leak test performed in accordance with 10CFR50 Appendix J at refueling outage frequency.

Justification for Deferral

Item Number:	MC-NI-24
Valve:	1NI-60, 1NI-71, 1NI-82, 1NI-94
Flow Diagram:	MCFD-1562-2.0, MCFD-1562-2.1
Code Category:	A,C
ASME Class:	1
Function:	Opens on flow from the NI cold leg accumulator to the Reactor Coolant System. Reactor Coolant Boundary valve.
Test Requirement:	Full Stroke Exercise Open, Close - Quarterly Leak Test Per Tech Spec Requirements 1) Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1. 2) Leak test once per 2 years in accordance with OMa-1988 Part 10, 4.2.2.3. 3) Leak test in accordance with Technical Specification.
Basis for Deferral:	Valves cannot be full or partial stroked during power operation since a driving head which can overcome RCS pressure does not exist. Valves will not be tested during cold shutdown since Technical Specification requires leak testing after initiating flow through these valves and does not require leak testing more often than once per nine months.
Test Alternative & Frequency:	Valves will be acoustic monitored full stroke open at refueling. Valves will be verified closed by leak test performed in accordance with Technical Specification.

Justification for Deferral

Item Number:	MC-NI-25
Valve:	1NI-135B, 2NI-135B
Flow Diagram:	MCFD-1562-3.0, MCFD-2562-3.0
Code Category:	B
ASME Class:	2
Function:	NI Pump Suction Isolation Valve
Test Requirement:	Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10,4.2.1.1.
Basis for Deferral:	Operator action would be required to restore function if accident occurred during testing. Also relief protection is blocked. The only other option is racking open the pump breakers. These are all basis for deferral per NUREG 1482.
Test Alternative & Frequency:	Valves will be stroke time closed at cold shutdown frequency.

Justification for Deferral

Item Number: MC-NM-01

Valve: 1NM-420, 1NM-421
2NM-420, 2NM-421

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Justification for Deferral

Item Number:	MC-NM-02
Valve:	1NM-3AC, 1NM-6AC, 1NM-7B, 1NM-22AC, 1NM-25AC, 1NM-26B 2NM-3AC, 2NM-6AC, 2NM-7B, 2NM-22AC, 2NM-25AC, 2NM-26B
Flow Diagram:	MCFD-1572-1.1, MCFD-2572-1.1
Code Category:	A
ASME Class:	2
Function:	Closed to provide containment isolation for NC system pressurizer and hot leg sample penetrations.
Test Requirement:	Stroke Time – Quarterly Leak-Rate Test to Appendix J Requirements - Refueling Stroke time test in accordance with Oma-1988 Part 10, 4.2.1.1
Basis for Deferral:	These valves are either open or closed normally to provide continuous purge or sample flow from the pressurizer water or steam space or hot legs A or D and to isolate the alternate sample flowstream. Stroking the valves causes high loading on the valves close to their structural limit. There are several past examples of external leaks developing due to stroking these valves for testing purposes. NUREG-1482 section 2.4.5 gives general guidance on deferring inservice testing to cold shutdown valves which when cycled could subject a system to "undue stress or reduce the life expectancy of plant components." Quarterly stroke testing will therefore be discontinued to prevent unnecessary stroking of and thus increase the life expectancy of the valves.
Test Alternative & Frequency:	Valves will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-NS-01
Valve:	1NS-38B, 1NS-43A 2NS-38B, 2NS-43A
Flow Diagram:	MCFD-1563-1.0, MCFD-2563-1.0
Code Category:	B
ASME Class:	2
Function:	Auxiliary Spray Nozzle header isolation.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Opening either of these valves during power operation renders both trains on Residual Heat Removal inoperable. With cross-connected trains of ND, flow would be diverted from both trains through a failed-open 1(2)NS-38B or 1(2)NS-43A. To isolate one train of ND, it would be necessary to manually secure closed either 1(2)ND-14 or 1(2)ND-29, since these valves fail open on loss of air. This would be an impractical measure to perform the quarterly test.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number: MC-NS-02

Valve: 1NS-13, 1NS-16, 1NS-30, 1NS-33, 1NS-41, 1NS-46
2NS-13, 2NS-16, 2NS-30, 2NS-33, 2NS-41, 2NS-46

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Justification for Deferral

Item Number:	MC-NS-03
Valve:	1NS-4, 1NS-21 2NS-4, 2NS-21
Flow Diagram:	MCFD-1563-1.0, MCFD-2563-1.0
Code Category:	C
ASME Class:	2
Function:	Opens to allow flow from the Refueling Water Storage Tank to the Containment Spray Pump suction.
Test Requirement:	Full Stroke Exercise Open – Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	Stroke testing the valves can be done in one of three methods: a) full flow testing using ND pumps during refueling outages, b) acoustic monitoring during quarterly pump testing, or c) sample disassembly during refueling outages. Full flow testing using ND pumps requires opening a recirculation flow path to the FWST, which can only be done during refueling outages. Testing both check valves by this (preferred) method requires both trains of both NS and ND systems to be available at some point during the outage which may not always be practical with other scheduled outage work. While acoustic monitoring could be done on a quarterly frequency, it requires obtaining contractor services to install non-intrusive test equipment and conduct testing which is considered sufficient hardship to justify deferral to refueling outage frequency per NUREG 1482. Sample disassembly of these check valves requires extensive disassembly which need only be done during refueling outages per OMa-1988 Part 10.
Test Alternative & Frequency:	Valves will be partially stroked quarterly and full stroke verification will be accomplished by one of the following means: a) full flow testing using ND pumps during refueling outages b) acoustic testing during NS pump performance testing on a refueling outage frequency (preferably just before outages), or c) sample disassembly with at least one of these valves disassembled during each refueling outage such that both valves will have been disassembled after two consecutive outages. Failure of one valve to properly full stroke during a sample disassembly will result in the remaining valve being disassembled and full stroked during that outage.

Justification for Deferral

Item Number:	MC-NS-04
Valve:	1NS-140, 1NS-141
Flow Diagram:	MCFD-1563-1.0
Code Category:	A,C
ASME Class:	2
Function:	Must open to allow Containment Spray to the spray ring headers. Must close to prevent column separation of water in the header after initial building spraydown and pump shutdown. During this time, the column of water in the vertical piping up to the spray rings could separate, creating a void in the system at sub-atmospheric pressure. Upon pump restart, the collapse of this void would damage the piping system.
Test Requirement:	Full Stroke Exercise Open, Close - Quarterly Leak Rate Test to Section XI Requirements 1) Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1. 2) Leak test once per 2 years in accordance with OMa-1988 Part 10, 4.2.2.3.
Basis for Deferral:	Full stroke exercising of these check valves is not practical since there is no external indication of disk movement. Full stroke exercising would require for the pumps and spray nozzles to be activated which would require a large scale cleanup effort. Valves will not be tested during cold shutdown since sample disassembly is required.
Test Alternative & Frequency:	Valves will be verified to full stroke open using sample disassembly every other refueling outage on a staggered basis. Valves will be partial stroked quarterly. Valves will be leak tested at refueling outages. Leak testing will also verify closure of these valves.

Justification for Deferral

Item Number:	MC-NS-05
Valve:	1NS-3B, 1NS-20A 2NS-3B, 2NS-20A
Flow Diagram:	MCFD-1563-1.0, MCFD-2563-1.0
Code Category:	B
ASME Class:	2
Function:	NS Pump Suction Isolation Valve
Test Requirement:	Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10,4.2.1.1.
Basis for Deferral:	NS pump beakers must be racked out to stroke time test these valves. This is recognized as impractical for quarterly testing in NUREG-1482 (accident would require opening breaker).
Test Alternative & Frequency:	Valves will be stroke time closed at cold shutdown frequency.

Justification for Deferral

Item Number:	MC-NS-06
Valve:	1NS-1B, 1NS-18A 2NS-1B, 2NS-18A
Flow Diagram:	MCFD-1563-1.0, MCFD-2563-1.0
Code Category:	B
ASME Class:	2
Function:	Open during swap-over to containment sump re-circulation to provide long-term borated water supply to NS pumps
Test Requirement:	Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10,4.2.1.1.
Basis for Deferral:	Stroke testing the valves on a quarterly frequency requires closure of the associated suction isolation valve (1/2NS-3B or 1/2NS-20A) from FWST to prevent aligning the FWST inventory to the containment sump. This requires racking out the breaker to protect the pump from damage in the event it receives a start signal during the period when the pump suction isolation valve is closed. This is considered sufficient justification to defer testing to a shutdown frequency.
Test Alternative & Frequency:	Valves will be stroke time open at cold shutdown frequency.

Justification for Deferral

Item Number:	MC-NS-07
Valve:	1NS-161, 1NS-163
Flow Diagram:	MCFD-1563-1.0
Code Category:	C
ASME Class:	2
Function:	Opens to allow flow from the Containment Spray Pump to the associated heat exchanger
Test Requirement:	Full Stroke Exercise Open – Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	Stroke testing the valves can be done in one of two methods: a) Manual stroking by verifying hinge pin torque required to stroke disc (accessed by removal of the hinge pin cover), or b) Acoustic monitoring during quarterly pump testing. Manually stroking the check valves requires opening the access cover, which is considered a containment pressure boundary. Such testing may be deferred to refueling outages per NUREG 1482. While acoustic monitoring (if it can be demonstrated) may be possible on a quarterly frequency, it requires obtaining contractor services to install non-intrusive test equipment and conduct testing which is considered sufficient hardship to justify deferral to refueling outage frequency per NUREG 1482.
Test Alternative & Frequency:	Valves will be partially stroked quarterly and full stroke verification will be accomplished by one of the following means: a) manual stroking during refueling outages to verify the disc opens to the full position and measurement of torque required to initiate disc movement (breakaway) which shall not vary more than 50% from the established baseline torque with test conditions as close as practicable to baseline conditions (wet vs dry and equivalent static head) b) acoustic testing during NS pump performance testing on a refueling outage frequency (preferably just before outages)

Justification for Deferral

Item Number:	MC-NV-01
Valve:	1NV-94AC, 1NV-95B 2NV-94AC, 2NV-95B
Flow Diagram:	MCFD-1554-1.1, MCFD-2554-1.1
Code Category:	B
ASME Class:	2
Function:	1) Provides flowpath for Reactor Coolant Pump seal water discharge line. 2) Provides containment isolation for penetration M-256
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Closure of one of these valves during power operation would inhibit normal seal water flow across the reactor coolant pump number 1 seal. This action could result in damage to the reactor coolant pump seals or the pump itself. Failure of this seal with NC flow out the seal would be a loss of NV system function, and is justification for deferral in accordance with NUREG-1482 Section 3.1.1.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-NV-02
Valve:	1NV-7B 2NV-7B
Flow Diagram:	MCFD-1554-1.2, MCFD-2554-1.2
Code Category:	B
ASME Class:	2
Function:	1) Provides flowpath for normal letdown. 2) Provides containment isolation for penetration M-347.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Failure of this valve in a closed position would result in a significant event (letdown isolation), possibly resulting in loss of pressurizer level control, and possible Unit trip (not a normal shutdown).
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number: MC-NV-03

Valve: 1NV-21A
2NV-21A

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Justification for Deferral

Item Number:	MC-NV-04
Valve:	1NV-141A, 1NV-142B 2NV-141A, 2NV-142B
Flow Diagram:	MCFD-1554-2.0, MCFD-2554-2.0
Code Category:	B
ASME Class:	2
Function:	Provides isolation for Volume Control Tank upon Safety Injection Signal.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Closure of one of these valves during power operation would isolate the suction for the Centrifugal Charging Pumps. This action could result in damage to the pumps. Seal water to the Reactor Coolant pumps would be interrupted causing damage to the seals.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-NV-05
Valve:	1NV-244A, 1NV-245B 2NV-244A, 2NV-245B
Flow Diagram:	MCFD-1554-3.0, MCFD-2554-3.0
Code Category:	B
ASME Class:	2
Function:	Isolates charging to the Reactor Coolant System upon Safety Injection.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	If one of these valves were to fail in the closed position while testing during power operation, normal and alternate charging would be lost. Total loss of charging flow would be a significant event, resulting in a possible loss of Pressurizer control, and a likely Unit trip (not a normal shutdown), as well as loss of NC pump seal flow.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-NV-06
Valve:	1NV-221A, 1NV-222B 2NV-221A, 2NV-222B
Flow Diagram:	MCFD-1554-3.1, MCFD-2554-3.1
Code Category:	B
ASME Class:	2
Function:	Flowpath for Refueling Water Storage Tank to the suction of the Centrifugal Charging Pumps.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Opening these valves during power operation allows the Charging Pumps to inject highly borated water into the Reactor Coolant System which could result in a unit shutdown.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-NV-07
Valve:	1NV-264 2NV-264
Flow Diagram:	MCFD-1554-3.1, MCFD-2554-3.1
Code Category:	C
ASME Class:	2
Function:	Provides flowpath from the Boric Acid Tank to the Centrifugal Charging Pump suction. Closes to provide pump suction pressure boundary.
Test Requirement:	Full Stroke Exercise Open, Close - Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	To full stroke exercise this valve during power operations would inject more than 30 gpm of boric acid into the Reactor Coolant System creating a transient. To verify closure, residual boric acid would be injected causing a transient.
Test Alternative & Frequency:	Valve will be full stroke exercised at cold shutdown.

Justification for Deferral

Item Number:	MC-NV-08
Valve:	1NV-150B, 1NV-151A 2NV-150B, 2NV-151A
Flow Diagram:	MCFD-1554-2.0, MCFD-2554-2.0
Code Category:	B
ASME Class:	2
Function:	Provides isolation for Centrifugal Charging Pump miniflow line to Volume Control Tank.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	If either valve were to fail closed while testing, the Charging Pump miniflow protection line is isolated possibly causing damage to the pump. Closure of either of these valves would render both trains of NV inoperable, since on a spurious safety injection event (in which reactor coolant system pressure is increased above normal), this is a relief path back to the Volume Control Tank.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-NV-09
Valve:	1NV-265B 2NV-265B
Flow Diagram:	MCFD-1554-3.1, MCFD-2554-3.1
Code Category:	B
ASME Class:	2
Function:	Provides isolation of the Boric Acid Tank suction from the suction of the Charging Pumps.
Test Requirement:	Measure Full Stroke Time – Quarterly Stroke time test in accordance with Oma-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Previous justification for deferring testing on these valves has been based on the assumption that the Boric Acid Pumps are not secured for in-service testing. Although the BAT pumps are normally operated, securing them has been considered an acceptable method of stroking these valves after performing MOV PMs on-line (Ref. PIP M-99-5538). The annual PM generally does not require that the valve be stroked while the 5 year PM does require post maintenance testing. While it would be possible to stroke time test these valves on a quarterly frequency, this would require securing the BAT pump on a quarterly frequency in order to avoid a potential transient which could occur if the boric acid were injected into the Reactor Coolant System. Such requirements on a much more frequent frequency are considered a hardship as described in NUREG-1482 Section 3.1.1 which is justification for deferring testing to Cold Shutdown.
Test Alternative & Frequency:	Valves will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-NV-10
Valve:	1NV-225, 1NV-231 2NV-225, 2NV-231
Flow Diagram:	MCFD-1554-3.1, MCFD-2554-3.1
Code Category:	C
ASME Class:	2
Function:	Pump discharge check valve. Opens to provide flowpath for Centrifugal Charging Pump. Closes to prevent opposite train flow losses.
Test Requirement:	Full Stroke Exercise Open, Close - Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	Valve cannot be full stroke exercised during power operation since this would require an increase in Reactor Coolant System boron concentration which could result in unit shutdown. Normal letdown is not sufficient to verify full stroke, this must be done when aligned to the FWST for suction.
Test Alternative & Frequency:	Valve will be full stroke exercised during cold shutdown, partial stroked with normal use.

Justification for Deferral

Item Number:	MC-NV-11
Valve:	1NV-223 2NV-223
Flow Diagram:	MCFD-1554-3.1, MCFD-2554-3.1
Code Category:	C
ASME Class:	2
Function:	Provides open flowpath from the FWST. Provides closed pump suction pressure boundary when suction is from the Residual Heat Removal pumps.
Test Requirement:	Full Stroke Exercise Open, Close - Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	Testing this valve during power operations would require opening of either 1(2)NV-221A or 1(2)NV-222B. Opening these valves during power operation could result in a unit trip. See Justification # MC-NV-06.
Test Alternative & Frequency:	Valve will be full stroke exercised at cold shutdown.

Justification for Deferral

Item Number:	MC-NV-12
Valve:	1NV-1046 2NV-1046
Flow Diagram:	MCFD-1554-3.0, MCFD-2554-3.0
Code Category:	C
ASME Class:	2
Function:	Closes to provide pump suction pressure boundary for Centrifugal Charging Pumps. Open function is to protect the Positive Displacement Pump from over pressurization. This is not a safety related function.
Test Requirement:	Full Stroke Exercise Close - Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	Testing this valve during power operation would result in the addition of highly borated water into the Reactor Coolant System causing a transient. To place adequate test pressure on this valve, it would be necessary to use ND Pump discharge pressure, which would require opening 1(2)ND-58A. This would inject FWST water into the NC System via the Charging Pumps, which are also on the discharge of the ND Pumps (for cold leg recirc) via 1(2)ND-58A.
Test Alternative & Frequency:	Valve will be full stroke exercised at cold shutdown.

Justification for Deferral

Item Number:	MC-NV-13
Valve:	1NV-261, 1NV-263 2NV-261, 2NV-263
Flow Diagram:	MCFD-1554-3.1, MCFD-2554-3.1
Code Category:	C
ASME Class:	2
Function:	These valves shall close to provide pump suction pressure isolation for the Centrifugal Charging Pumps by preventing backflow to the Chemical Mixing Tank or the RMWST respectively.
Test Requirement:	Full Stroke Exercise Close - Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	Testing these valves requires 1(2)NI-121A to be opened. This valve is closed with power removed above mode 4 per Technical Specification. This testing would require opening valve 1(2)ND-58A, which would render both trains of NV inoperable (by seating check valve 1(2)NV-223 (charging pump suction from the FWST in-line check) closed).
Test Alternative & Frequency:	Valve will be full stroke exercised at cold shutdown.

Justification for Deferral

Item Number:	MC-NV-14
Valve:	1NV-1002 2NV-1002
Flow Diagram:	MCFD-1554-1.3, MCFD-2554-1.3
Code Category:	A,C
ASME Class:	2
Function:	Provides containment isolation on penetration M-342.
Test Requirement:	Full Stroke Exercise Close - Quarterly Leak-Rate Test to Appendix J Requirements - Refueling 1) Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1. 2) Leak test once per 2 years in accordance with OMa-1988 Part 10, 4.2.2.2.
Basis for Deferral:	The system design does not provide a means of verifying valve closure upon flow reversal. Testing during power operation is impractical for this valve since it is located inside containment, as well as the test connection needed to test it. During cold shutdowns, this testing would involve work inside containment, possibly with high radiation levels.
Test Alternative & Frequency:	Valve will be verified closed by leak test performed in accordance with 10CFR50 Appendix J at refueling outage frequency.

Justification for Deferral

Item Number:	MC-NV-15
Valve:	1NV-143 2NV-143
Flow Diagram:	MCFD-1554-2.0, MCFD-2554-2.0
Code Category:	C
ASME Class:	2
Function:	This valve shall close to provide Centrifugal Charging Pump suction pressure boundary during Recirculation alignment from RHR Pump discharge.
Test Requirement:	Full Stroke Exercise Close - Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	This valve is in the flowpath from the Volume Control Tank to the Charging pumps. During normal system operation, this valve is open. To verify this valve closes properly requires the alignment from the RHR pumps, and would interrupt normal charging activities.
Test Alternative & Frequency:	Valve will be full stroke exercised at cold shutdown.

Justification for Deferral

Item Number: MC-NV-16

Valve: 1NV-164
2NV-164

Justification for 1NV-164 deleted by Revision 22
Justification for 2NV-164 deleted by Revision 17

Justification for Deferral

Item Number:	MC-NV-17
Valve:	1NV-1007, 1NV-1008, 1NV-1009, 1NV-1010 2NV-1007, 2NV-1008, 2NV-1009, 2NV-1010
Flow Diagram:	MCFD-1554-1.3, MCFD-2554-1.3
Code Category:	C
ASME Class:	2
Function:	These valves must close to maintain a pressure boundary for normal Reactor Coolant Pump Seal Injection.
Test Requirement:	Full Stroke Exercise Close - Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	In the event of failure of one of these valves during testing, the seal injection water for that Reactor Coolant Pump would be diverted, thereby creating a loss of seal injection to that pump. This condition would result in destroying a seal for the pump, and possibly creating a small break loss of coolant accident.
Test Alternative & Frequency:	These valves will be tested for closure during cold shutdowns.

Justification for Deferral

Item Number: MC-NV-18

Valve: 2NV-1034

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Justification for Deferral

Item Number:	MC-NV-19
Valve:	1NV-0035A, 1NV-0457A, 1NV-0458A 2NV-0035A, 2NV-0457A, 2NV-0458A
Flow Diagram:	MCFD-1554-1.02, MCFD-2554-1.02
Code Category:	B
ASME Class:	2
Function:	These valves must automatically close to isolate containment on a Phase A signal, and to isolate letdown on a Pressurizer Low Level signal. They can be operated from the Auxiliary Shutdown Panel, and cannot be opened unless valves 1(2)NV-1A and 1(2)NV-2A are both open.
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test quarterly in accordance with Oma-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Letdown header relief valve 1(2)NV-6 has experienced lifting and subsequent seat leakage as a result of pressure transients during orifice swaps for stroke time testing of the above valves. Although the NV operating procedure specifically addresses the potential pressure increase that could occur when swapping from the 45 gpm to the 75 gpm orifice, the increase can occur so quickly that the operator and system controls cannot respond fast enough to prevent the pressure transient. The NV operating procedure currently provides for simultaneous opening/closure of the above orifice isolation valves, and for back pressure reduction using the downstream control valve, to prevent such a pressure transient; however, procedure effectiveness is problematic with respect to repeatability due to the inability to achieve perfect coordination each time. It is concluded that testing of these valves is impractical and nonconservative during power operation, since it results in pressure transients which have caused relief valve leakage. This leakage is Reactor Coolant (NC) leakage, which is reflected in higher NC leakage values. Finally, these valves have demonstrated a favorable test history.
Test Alternative & Frequency:	Valves will be stroke time tested during cold shutdown.

Justification for Deferral

Item Number:	MC-RF-01
Valve:	1RF-823 1RF-834
Flow Diagram:	MCFD-1599-2.2, MCFD-1599-2.2
Code Category:	A,C
ASME Class:	2
Function:	Provides containment isolation on penetration M-353.
Test Requirement:	Full Stroke Exercise Close - Quarterly Leak-Rate Test to Appendix J Requirements - Refueling 1) Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1. 2) Leak test once per 2 years in accordance with OMa-1988 Part 10, 4.2.2.2.
Basis for Deferral:	The system design does not provide a means of verifying valve closure upon flow reversal. Testing during power operation is impractical for this valve since it is located inside containment, as well as the test connection needed to test it. During cold shut-downs, this testing would involve work inside containment, possibly with high radiation levels.
Test Alternative & Frequency:	Valve will be verified closed by leak test performed in accordance with 10CFR50 Appendix J at refueling outage frequency.

Justification for Deferral

Item Number:	MC-RF-02
Valve:	1RF-821A 1RF-832A
Flow Diagram:	MCFD-1599-2.2, MCFD-1599-2.2
Code Category:	A
ASME Class:	2
Function:	Provides containment isolation.
Test Requirement:	Stroke Time Close - Quarterly Leak-Rate Test to Appendix J Requirements - Refueling Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	There is undue risk of spraying down containment with fire protection water (opening these valves exposes the containment sprinkler header to RF header pressure). This is impractical and is justified for deferral to cold shutdown in accordance with NUREG-1482.
Test Alternative & Frequency:	Valve will be stroke time close at cold shutdown frequency.

Justification for Deferral

Item Number:	MC-RN-01
Valve:	1RN-252B, 1RN-253A 2RN-252B, 2RN-253A
Flow Diagram:	MCFD-1574-4.0, MCFD-2574-4.0
Code Category:	A
ASME Class:	2
Function:	1) Provides containment isolation for penetration M-307. 2) Provides flowpath for cooling water to the Reactor Coolant Pump Motor Air Cooler.
Test Requirement:	Measure Full Stroke Time - Quarterly Leak-Rate Test to Appendix J Requirements - Refueling Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	If one of these valves were to fail closed during testing, isolation of cooling water to the motor coolers could result in damage to the pumps. Closure of these valves would result in a Unit trip from NC Pump motors being manually shut down due to high stator temperatures (within minutes). An abnormal (natural circulation) shutdown would be required.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-RN-02
Valve:	1RN-276A, 1RN-277B 2RN-276A, 2RN-277B
Flow Diagram:	MCFD-1574-4.0, MCFD-2574-4.0
Code Category:	A
ASME Class:	2
Function:	1) Provides containment isolation for penetration M-315. 2) Provides flowpath for cooling water to the Reactor Coolant Pump Motor Air Cooler.
Test Requirement:	Measure Full Stroke Time - Quarterly Leak-Rate Test to Appendix J Requirements - Refueling Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	If one of these valves were to fail closed during testing, isolation of cooling water to the motor coolers could result in damage to the pumps. Closure of these valves would result in a Unit trip from NC Pump motors being manually shut down due to high stator temperatures (within minutes). An abnormal (natural circulation) shutdown would be required.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number: MC-RN-03

Valve: 1RN-42A
2RN-42A

1RN-42A deleted by Revision 21
2RN-42A deleted by Revision 16

Justification for Deferral

Item Number: MC-RN-04

Valve: 1RN-63B, 1RN64A
2RN-63B, 2RN64A

1RN-63B, 1RN64A deleted by Revision 21
2RN-63B, 2RN64A deleted by Revision 16

Justification for Deferral

Item Number: MC-RN-05

Valve: 1RN-214
2RN-113

1RN-214 deleted by Revision 21
2RN-113 deleted by Revision 16

Justification for Deferral

Item Number: MC-RN-06

Valve: 1RN-891, 1RN892
2RN-891, 2RN892

1RN-891, 1RN892 deleted by Revision 22
2RN-891, 2RN892 deleted by Revision 17

Justification for Deferral

Item Number:	MC-RV-01
Valve:	1RV-32A, 1RV-33B, 1RV-76A, 1RV-77B 2RV-32A, 2RV-33B, 2RV-76A, 2RV-77B
Flow Diagram:	MCFD-1604-3.0, MCFD-2604-3.0
Code Category:	A
ASME Class:	2
Function:	Provide containment isolation for penetration M-240 and M-279 respectively.
Test Requirement:	Measure Full Stroke Time - Quarterly Leak-Rate Test to Appendix J Requirements - Refueling Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	Failure of one of these valves in the closed position during testing would isolate cooling flow to the Lower Containment Ventilation Units causing an increase in lower containment temperature which could exceed Tech Spec limits. Although the exact time depends on outside temperature, the Tech Spec limit would be exceeded within minutes if cooling flow was isolated to these ventilation units.
Test Alternative & Frequency:	Valve will be cycled and timed during cold shutdown.

Justification for Deferral

Item Number:	MC-SA-01
Valve:	1SA-5, 1SA-6
Flow Diagram:	MCFD-1593-1.2
Code Category:	C
ASME Class:	2
Function:	Opens to allow steam supply to the turbine driven Auxiliary Feedwater Pump. Closes to prevent cross connecting steam generators 1B and 1C.
Test Requirement:	Full Stroke Exercise Open, Close - Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	System configuration and design do not provide a suitable means to prove the valve prevents reversal of flow. To test the close function of this valve on line would risk personnel safety since high energy steam would be involved.
Test Alternative & Frequency:	At least one of these two valves will be disassembled and full stroked during each refueling outage, and both valves will have been disassembled and full stroked after two consecutive outages. Sample disassembly will verify closure. Failure of one of valve to properly full stroke during a refueling outage will result in the remaining valve being disassembled and full stroked during that outage. Valves will be full stroked open quarterly.

Justification for Deferral

Item Number:	MC-SA-02
Valve:	1SA-1, 1SA-2, 1SA-77, 1SA-78 2SA-1, 2SA-2, 2SA-77, 2SA-78
Flow Diagram:	MC-1593-01.02, MC-2593-01.02
Code Category:	B
ASME Class:	2
Function:	Manually closed to isolate the affected Steam Generator in the event of a Steam Generator Tube Rupture event.
Test Requirement:	Full Stroke Exercise Closed - Quarterly
Basis for Deferral:	Stroke testing the valves on a quarterly frequency involves two additional operators, more than an additional hour that the LCO is in affect while the CAPT is out of service. This test requires that operators open the manual valves to establish a redundant steam flow path to the turbine, and offers marginal benefit. Additionally for a steam line break event in the doghouse that occurs just when the manual valves are closed, operators may be unable to access the manual valves to re-open the intact steam supply to the CAPT. This is considered sufficient justification to defer testing to a shutdown frequency.
Test Alternative & Frequency:	Valves will be full stroke exercised at cold shutdown to verify each manual valve can sufficiently isolate flow to the CAPT.

Justification for Deferral

Item Number:	MC-SM-01
Valve:	1SM-1AB, 1SM-3AB, 1SM-5AB, 1SM-7AB 2SM-1AB, 2SM-3AB, 2SM-5AB, 2SM-7AB
Flow Diagram:	MCFD-1593-1.0, MCFD-1593-1.3, MCFD-2593-1.0, MCFD-2593-1.3
Code Category:	B
ASME Class:	2
Function:	Main Steam Isolation Valves
Test Requirement:	Measure Full Stroke Time - Quarterly Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	These valves cannot be fully cycled closed during power operation since a unit shutdown would result.
Test Alternative & Frequency:	These valves will be cycled and timed during cold shutdown. They are no longer 90% open tested quarterly, as this only showed partial movement and increased the risk of unit trip.

Justification for Deferral

Item Number:	MC-VB-01
Valve:	1VB-50 2VB-50
Flow Diagram:	MCFD-1605-3.1, MCFD-2605-3.1
Code Category:	A,C
ASME Class:	2
Function:	Provides containment isolation on penetration M-215.
Test Requirement:	Full Stroke Exercise Close - Quarterly Leak-Rate Test to Appendix J Requirements - Refueling 1) Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1. 2) Leak test once per 2 years in accordance with OMa-1988 Part 10, 4.2.2.2.
Basis for Deferral:	The system design does not provide a means of verifying valve closure upon flow reversal. Testing during power operation is impractical for this valve since it is located inside containment, as well as the test connection needed to test it. During cold shutdowns, this testing would involve work inside containment, possibly with high radiation levels.
Test Alternative & Frequency:	Valve will be verified closed by leak test performed in accordance with 10CFR50 Appendix J at refueling outage frequency.

Justification for Deferral

Item Number: MC-VG-01

Valve: 1VG-17, 1VG-18, 1VG-19, 1VG-20
2VG-17, 2VG-18, 2VG-19, 2VG-20

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Justification for Deferral

Item Number:	MC-VG-02
Valve:	1VG-61, 1VG-62, 1VG-63, 1VG-64, 1VG-65, 1VG-66, 1VG-67, 1VG-68, 2VG-61, 2VG-62, 2VG-63, 2VG-64, 2VG-65, 2VG-66, 2VG-67, 2VG-68,
Flow Diagram:	MCFD-1609-4.0, MCFD-2609-4.0
Code Category:	B
ASME Class:	3
Function:	Open to supply starting air to emergency diesel generator (EDG)
Test Requirement:	Full Stroke Exercise Open - Quarterly
Basis for Deferral:	Solenoid valve design does not provide any indication of position. The solenoid valves are part of the diesel air-start subassembly which include four per diesel (two aligned to the diesel left bank starting air header and two aligned to the right bank). This is considered "skid-mounted" equipment with testing of the major component (diesel generator monthly Tech Spec required tests). The starting air system design has considerable redundancy in that failure of one solenoid valve per starting air header to open does not affect EDG emergency operation. The installed redundancy of these solenoid valves is considered sufficient justification to defer testing to a shutdown frequency. The current test methodology (which simultaneously strokes multiple solenoid valves) occasionally does not give true indication of valves which stroke. This results in additional diesel starts just to capture the required stroke time data. The additional starts challenge safety-related equipment and cause unnecessary wear on the engines. Monthly testing verifies that the combined solenoid valves function to properly start the engine; however, it does not necessarily indicate degradation of a particular valve. Testing performed during unit refueling shutdown will be modified to verify individual solenoid valve strokes without increasing the total number of diesel starts. Diesel start time as well as starting air tank pressure change will be monitored as acceptance criteria.
Test Alternative & Frequency:	Valves will be full stroke exercised at refueling outage frequency to verify each solenoid valve can independently open and start its associated EDG.

Justification for Deferral

Item Number:	MC-VI-01
Valve:	1VI-368, 1VI-372, 1VI-373, 1VI-374 2VI-368, 2VI-372, 2VI-373, 2VI-374
Flow Diagram:	MCFD-1605-1.3, MCFD-2605-1.3
Code Category:	C
ASME Class:	NA
Function:	1(2)VI-368 and 1(2)VI-373 must open to allow nitrogen to the PORV actuator. 1(2)VI-372, 1(2)VI-374 must close to prevent loss of Nitrogen pressure if instrument air is lost.
Test Requirement:	Full Stroke Exercise Open - Quarterly Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1.
Basis for Deferral:	All four valves are tested with PORV stroke timing. PORVs are tested on a cold shutdown frequency. Refer to Justification MC-NC-01.
Test Alternative & Frequency:	Valve will be full stroke exercised at cold shutdown.

Justification for Deferral

Item Number:	MC-VI-02
Valve:	1VI-124, 1VI-149 2VI-124, 2VI-149
Flow Diagram:	MCFD-1605-1.2, MCFD-2605-1.2
Code Category:	A,C
ASME Class:	2
Function:	Provides containment isolation on penetrations M-317 and M-386 respectively.
Test Requirement:	Full Stroke Exercise Close - Quarterly Leak-Rate Test to Appendix J Requirements - Refueling 1) Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1. 2) Leak test once per 2 years in accordance with OMa-1988 Part 10, 4.2.2.2.
Basis for Deferral:	The system design does not provide a means of verifying valve closure upon flow reversal. Testing during power operation is impractical for this valve since it is located inside containment, as well as the test connection needed to test it. During cold shutdowns, this testing would involve work inside containment, possibly with high radiation levels.
Test Alternative & Frequency:	Valve will be verified closed by leak test performed in accordance with 10CFR50 Appendix J at refueling outage frequency.

Justification for Deferral

Item Number:	MC-VI-03
Valve:	1VI-40, 1VI-161 2VI-40, 2VI-161
Flow Diagram:	MCFD-1605-1.3, MCFD-2605-1.3
Code Category:	A,C
ASME Class:	2
Function:	Provides containment isolation on penetrations M-220 and M-359 respectively.
Test Requirement:	Full Stroke Exercise Close - Quarterly Leak-Rate Test to Appendix J Requirements - Refueling 1) Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1. 2) Leak test once per 2 years in accordance with OMa-1988 Part 10, 4.2.2.2.
Basis for Deferral:	The system design does not provide a means of verifying valve closure upon flow reversal. Testing during power operation is impractical for this valve since it is located inside containment, as well as the test connection needed to test it. During cold shutdowns, this testing would involve work inside containment, possibly with high radiation levels.
Test Alternative & Frequency:	Valve will be verified closed by leak test performed in accordance with 10CFR50 Appendix J at refueling outage frequency.

Justification for Deferral

Item Number:	MC-VI-04
Valve:	1VI-129B, 1VI-150B, 1VI-160B 2VI-129B, 2VI-150B, 2VI-160B
Flow Diagram:	MCFD-1605-1.14; MCFD-1605-1.17; MCFD-2605-1.2; MCFD-2605-1.3
Code Category:	A
ASME Class:	2
Function:	Provides containment isolation on penetrations M-220, M-317 and M-359 respectively.
Test Requirement:	Measure Full Stroke Time - Quarterly Leak-Rate Test to Appendix J Requirements - Refueling Stroke time test in accordance with OMa-1988 Part 10, 4.2.1.1.
Basis for Deferral:	These valves isolate instrument air headers to the reactor building. In the past, to perform stroke timing of these valves, the containment air compressor was started to maintain an un-interrupted air supply to components inside containment. Subsequently, the containment compressor was deleted. Should these valves be closed during power operation, components inside containment would experience a loss of instrument air, resulting in unwanted transients. During cold shutdowns, personnel entry into containment may be made to manually align instrument air headers together, allowing these valves to be tested. Since this is a manual alignment, it is not possible to enter containment to make this alignment for quarterly testing.
Test Alternative & Frequency:	Valves will be cycled and timed during cold shutdown. Leak testing will be performed as per the requirements of 10CFR50, Appendix J.

Justification for Deferral

Item Number:	MC-VS-01
Valve:	1VS-13 2VS-13
Flow Diagram:	MCFD-1605-2.2, MCFD-2605-2.2
Code Category:	A,C
ASME Class:	2
Function:	Provides containment isolation on penetration M-219.
Test Requirement:	Full Stroke Exercise Close - Quarterly Leak-Rate Test to Appendix J Requirements - Refueling 1) Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1. 2) Leak test once per 2 years in accordance with OMa-1988 Part 10, 4.2.2.2.
Basis for Deferral:	The system design does not provide a means of verifying valve closure upon flow reversal. Testing during power operation is impractical for this valve since it is located inside containment, as well as the test connection needed to test it. During cold shutdowns, this testing would involve work inside containment, possibly with high radiation levels.
Test Alternative & Frequency:	Valve will be verified closed by leak test performed in accordance with 10CFR50 Appendix J at refueling outage frequency.

Justification for Deferral

Item Number:	MC-VX-01
Valve:	1VX-30 2VX-30
Flow Diagram:	MCFD-1557-1, MCFD-2557-1
Code Category:	A,C
ASME Class:	2
Function:	Provides containment isolation on penetration M-325.
Test Requirement:	Full Stroke Exercise Close - Quarterly Leak-Rate Test to Appendix J Requirements - Refueling 1) Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1. 2) Leak test once per 2 years in accordance with OMa-1988 Part 10, 4.2.2.2.
Basis for Deferral:	The system design does not provide a means of verifying valve closure upon flow reversal. Testing during power operation is impractical for this valve since it is located inside containment, as well as the test connection needed to test it. During cold shutdowns, this testing would involve work inside containment, possibly with high radiation levels.
Test Alternative & Frequency:	Valve will be verified closed by leak test performed in accordance with 10CFR50 Appendix J at refueling outage frequency.

Justification for Deferral

Item Number: MC-WL-01

Valve: 1WL-24
2WL-24

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Justification for Deferral

Item Number: MC-WL-02

Valve: 1WL-385
2WL-385

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Justification for Deferral

Item Number:	MC-YM-01
Valve	1YM-116 2YM-116
Flow Diagram:	MCFD-1601-2.4, MCFD-2601-2.4
Code Category:	A,C
ASME Class:	2
Function:	Provides containment isolation on penetration M-337.
Test Requirement:	Full Stroke Exercise Close - Quarterly Leak-Rate Test to Appendix J Requirements - Refueling 1) Verify proper valve movement once per three months as required by OMa-1988 Part 10, 4.3.2.1. 2) Leak test once per 2 years in accordance with OMa-1988 Part 10, 4.2.2.2.
Basis for Deferral:	The system design does not provide a means of verifying valve closure upon flow reversal. Testing during power operation is impractical for this valve since it is located inside containment, as well as the test connection needed to test it. During cold shutdowns, this testing would involve work inside containment, possibly with high radiation levels.
Test Alternative & Frequency:	Valve will be verified closed by leak test performed in accordance with 10CFR50 Appendix J at refueling outage frequency.

SUPPLEMENTAL TEST PROGRAM

The 10CFR50, Appendix B Program (Supplemental Test Program) includes components that have been determined to be important to safety and judged to be prudent to test, but which are not explicitly under the scope of ASME Codes and Standards. Changes to test methods, frequency and acceptance criteria, as well as additions to or deletions from the program do not require Justification of Deferrals, Relief Requests, or other forms of NRC notification. However, such changes should be approved by the IST Program Administrator, and documented in the IST Correspondence File.

The following items are currently being tested per this program (or are planned to be tested per the program):

1) Full-flow vibrations are recorded during each refueling outage for the ND and NI Pumps (Reference Pump Relief Requests MC-SRP-ND-01 and MC-SRP-NI-01, Memorandum to IST Correspondence File dated September 18, 1995).

2) Leak-rate testing of the Hydrogen Analyzer/Post Accident Gas Sample loops are performed during each refueling outage (Reference PIP 1-M95-1622).

3) During refueling outages gross leakage is monitored past the ND to Auxiliary Spray boundary valves (Reference PIP 0-M95-643).

4) A gross diversion leak test of 1(2)NV-164 (hydrogen inlet to the VCT) will be performed (frequency to be determined).

Additional Valves in the Supplemental Test Program are listed in - Section 7.1

Pumps in Supplemental Test Program are listed in - Section 7.2

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	PI	Test Type	Test Type Description	Test Direction	Relief Request
CA - Auxiliary Feedwater												
1CA0161C	MCFD-1592-1.0	D-08	C	B	No	Gate	Limitorque	None	Yes	ST	Measure Full-Stroke Time of Valve	Closed to Open	None
2CA0161C	MCFD-2592-1.0	B-12	C	B	No	Gate	Limitorque	None	Yes	ST	Measure Full-Stroke Time of Valve	Closed to Open	None
1CA0162C	MCFD-1592-1.0	D-07	C	B	No	Gate	Limitorque	None	Yes	ST	Measure Full-Stroke Time of Valve	Closed to Open	None
2CA0162C	MCFD-2592-1.0	B-12	C	B	No	Gate	Limitorque	None	Yes	ST	Measure Full-Stroke Time of Valve	Closed to Open	None
1CA0250	MCFD-1592-1.1	I2	3	B	No	Globe	Manual	None	No	LT	Leak-Rate Test Valve to Section XI Requirement(s)	NA or Fail Safe Pos	None
2CA0250	MCFD-2592-1.1	I-02	3	B	No	Globe	Manual	None	No	LT	Leak-Rate Test Valve to Section XI Requirement(s)	NA or Fail Safe Pos	None
1CA0251	MCFD-1592-1.1	I5	3	B	No	Globe	Manual	None	No	LT	Leak-Rate Test Valve to Section XI Requirement(s)	NA or Fail Safe Pos	None
2CA0251	MCFD-2592-1.1	I-05	3	B	No	Globe	Manual	None	No	LT	Leak-Rate Test Valve to Section XI Requirement(s)	NA or Fail Safe Pos	None
1CA0252	MCFD-1592-1.1	I9	3	B	No	Globe	Manual	None	No	LT	Leak-Rate Test Valve to Section XI Requirement(s)	NA or Fail Safe Pos	None
2CA0252	MCFD-2592-1.1	I-09	3	B	No	Globe	Manual	None	No	LT	Leak-Rate Test Valve to Section XI Requirement(s)	NA or Fail Safe Pos	None

Valve	Flow Diagram		ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	PI	Test Type	Test Type Description	Test Direction	Relief Request
KC - Component Cooling													
1KC0281	MCFD-1573-3.1	J-02	3	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
2KC0281	MCFD-2573-3.1	J-02	3	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
1KC0313	MCFD-1573-3.1	I-13	2	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
2KC0313	MCFD-2573-3.1	I-13	2	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
1KC0330	MCFD-1573-3.1	C-05	3	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
2KC0330	MCFD-2573-3.1	C-05	3	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
1KC0345A	MCFD-1573-3.0	C-08	B	B	No	Globe	Rotork	None	Yes	ST	Measure Full-Stroke Time of Valve	Open to Closed	None
2KC0345A	MCFD-2573-3.0	C-08	B	B	No	Globe	Rotork	None	Yes	ST	Measure Full-Stroke Time of Valve	Open to Closed	None
1KC0349	MCFD-1573-3.0	G-09	2	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
2KC0349	MCFD-2573-3.0	D-09	2	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
1KC0364B	MCFD-1573-3.0	H-08	B	B	No	Globe	Rotork	None	Yes	ST	Measure Full-Stroke Time of Valve	Open to Closed	None
2KC0364B	MCFD-2573-3.0	H-08	B	B	No	Globe	Rotork	None	Yes	ST	Measure Full-Stroke Time of Valve	Open to Closed	None
1KC0368	MCFD-1573-3.0	H-09	2	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
2KC0368	MCFD-2573-3.0	I-09	2	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
1KC0394A	MCFD-1573-3.0	H-07	B	B	No	Globe	Rotork	None	Yes	ST	Measure Full-Stroke Time of Valve	Open to Closed	None

Valve	Flow Diagram		ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	PI	Test Type	Test Type Description	Test Direction	Relief Request
2KC0394A	MCFD-2573-3.0	H-07	B	B	No	Globe	Rotork	None	Yes	ST	Measure Full-Stroke Time of Valve	Open to Closed	None
1KC0398	MCFD-1573-3.0	I-06	2	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
2KC0398	MCFD-2573-3.0	I-06	2	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
1KC0413B	MCFD-1573-3.0	C-07	B	B	No	Globe	Rotork	None	Yes	ST	Measure Full-Stroke Time of Valve	Open to Closed	None
2KC0413B	MCFD-2573-3.0	C-07	B	B	No	Globe	Rotork	None	Yes	ST	Measure Full-Stroke Time of Valve	Open to Closed	None
1KC0417	MCFD-1573-3.0	D-07	2	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
2KC0417	MCFD-2573-3.0	C-06	2	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None

Valve	Flow Diagram		ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	PI	Test Type	Test Type Description	Test Direction	Relief Request
NM - Nuclear Sampling													
1NM0069	MCFD-1572-1.1	G-09	2	AC	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
2NM0069	MCFD-2572-1.1	G-09	2	AC	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None

Valve	Flow Diagram		ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	PI	Test Type	Test Type Description	Test Direction	Relief Request
NV - Chemical & Volume Control													
1NV0006	MCFD-1554-1.2	K-09	2	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
2NV0006	MCFD-2554-1.2	K-08	2	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
1NV0020	MCFD-1554-1.2	E-02	2	C	Yes	Check	Self Actuated	None	No	SD	Sample Disassembly	Closed to Open	None
2NV0020	MCFD-2554-1.2	E-02	2	C	Yes	Check	Self Actuated	None	No	SD	Sample Disassembly	Closed to Open	None
1NV0029	MCFD-1554-1.0	C-01	2	C	Yes	Check	Self Actuated	None	No	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	None
2NV0029	MCFD-2554-1.0	C-02	2	C	Yes	Check	Self Actuated	None	No	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	None
1NV0045	MCFD-1554-1.0	C-08	2	C	Yes	Check	Self Actuated	None	No	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	None
2NV0045	MCFD-2554-1.0	C-08	2	C	Yes	Check	Self Actuated	None	No	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	None
1NV0061	MCFD-1554-1.1	C-01	2	C	Yes	Check	Self Actuated	None	No	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	None
2NV0061	MCFD-2554-1.1	C-02	2	C	Yes	Check	Self Actuated	None	No	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	None
1NV0077	MCFD-1554-1.1	C-08	2	C	Yes	Check	Self Actuated	None	No	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	None
2NV0077	MCFD-2554-1.1	C-08	2	C	Yes	Check	Self Actuated	None	No	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	None
1NV0093	MCFD-1554-1.1	K-12	2	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
2NV0093	MCFD-2554-1.1	K-12	2	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
1NV0155	MCFD-1554-2.0	I-06	2	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None

Valve	Flow Diagram		ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	PI	Test Type	Test Type Description	Test Direction	Relief Request
2NV0155	MCFD-2554-2.0	I-06	2	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
1NV0156	MCFD-1554-2.0	J-09	2	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
2NV0156	MCFD-2554-2.0	J-09	2	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
1NV0842AC	MCFD-1554-1.0	F-02	B	B	No	Globe	Rotork	None	Yes	ST	Measure Full-Stroke Time of Valve	Open to Closed	None
2NV0842AC	MCFD-2554-1.0	F-02	B	B	No	Globe	Rotork	None	Yes	ST	Measure Full-Stroke Time of Valve	Open to Closed	None
1NV1012C	MCFD-1554-1.0	G-12	NA	B	No	Globe	Rotork	None	Yes	ST	Measure Full-Stroke Time of Valve	Open to Closed	None
2NV1012C	MCFD-2554-1.0	G-12	NA	B	No	Globe	Rotork	None	Yes	ST	Measure Full-Stroke Time of Valve	Open to Closed	None
1NV1013C	MCFD-1554-1.0	F-12	NA	B	No	Globe	Rotork	None	Yes	ST	Measure Full-Stroke Time of Valve	Closed to Open	None
2NV1013C	MCFD-2554-1.0	F-12	NA	B	No	Globe	Rotork	None	Yes	ST	Measure Full-Stroke Time of Valve	Closed to Open	None

Valve	Flow Diagram		ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	PI	Test Type	Test Type Description	Test Direction	Relief Request
RV - Containment Ventilation Cooling Water													
1RV0445	MCFD-1604-3.0	J-12	2	AC	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
2RV0445	MCFD-2604-3.0	J-12	2	AC	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
1RV0446	MCFD-1604-3.0	B-12	2	AC	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
2RV0446	MCFD-2604-3.0	B-12	2	AC	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	PI	Test Type	Test Type Description	Test Direction	Relief Request
SB - Main Steam Bypass to Condenser												
1SB0003	MCFD-1593-2.1	F-10	NA	B	No	Globe	Air	None	No	ST	Measure Full-Stroke Time of Valve	Closed to Open	None
2SB0003	MCFD-2593-2.1	F-10	NA	B	No	Globe	Air	None	No	ST	Measure Full-Stroke Time of Valve	Closed to Open	None
1SB0006	MCFD-1593-2.1	F-12	NA	B	No	Globe	Air	None	No	ST	Measure Full-Stroke Time of Valve	Closed to Open	None
2SB0006	MCFD-2593-2.1	F-12	NA	B	No	Globe	Air	None	No	ST	Measure Full-Stroke Time of Valve	Closed to Open	None
1SB0009	MCFD-1593-2.1	F-13	NA	B	No	Globe	Air	None	No	ST	Measure Full-Stroke Time of Valve	Closed to Open	None
2SB0009	MCFD-2593-2.1	F-13	NA	B	No	Globe	Air	None	No	ST	Measure Full-Stroke Time of Valve	Closed to Open	None
1SB0012	MCFD-1593-2.1	F-06	NA	B	No	Globe	Air	None	No	ST	Measure Full-Stroke Time of Valve	Closed to Open	None
2SB0012	MCFD-2593-2.1	F-06	NA	B	No	Globe	Air	None	No	ST	Measure Full-Stroke Time of Valve	Closed to Open	None
1SB0015	MCFD-1593-2.1	F-07	NA	B	No	Globe	Air	None	No	ST	Measure Full-Stroke Time of Valve	Closed to Open	None
2SB0015	MCFD-2593-2.1	F-07	NA	B	No	Globe	Air	None	No	ST	Measure Full-Stroke Time of Valve	Closed to Open	None
1SB0018	MCFD-1593-2.1	F-09	NA	B	No	Globe	Air	None	No	ST	Measure Full-Stroke Time of Valve	Closed to Open	None
2SB0018	MCFD-2593-2.1	F-09	NA	B	No	Globe	Air	None	No	ST	Measure Full-Stroke Time of Valve	Closed to Open	None
1SB0021	MCFD-1593-2.1	F-02	NA	B	No	Globe	Air	None	No	ST	Measure Full-Stroke Time of Valve	Closed to Open	None
2SB0021	MCFD-2593-2.1	F-02	NA	B	No	Globe	Air	None	No	ST	Measure Full-Stroke Time of Valve	Closed to Open	None
1SB0024	MCFD-1593-2.1	F-03	NA	B	No	Globe	Air	None	No	ST	Measure Full-Stroke Time of Valve	Closed to Open	None

Valve	Flow Diagram		ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	PI	Test Type	Test Type Description	Test Direction	Relief Request
2SB0024	MCFD-2593-2.1	F-03	NA	B	No	Globe	Air	None	No	ST	Measure Full-Stroke Time of Valve	Closed to Open	None
1SB0027	MCFD-1593-2.1	F-05	NA	B	No	Globe	Air	None	No	ST	Measure Full-Stroke Time of Valve	Closed to Open	None
2SB0027	MCFD-2593-2.1	F-05	NA	B	No	Globe	Air	None	No	ST	Measure Full-Stroke Time of Valve	Closed to Open	None

Valve	Flow Diagram		ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	PI	Test Type	Test Type Description	Test Direction	Relief Request
WG - Waste Gas													
1WG0092	MCFD-1567-2.0	F-14	3	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
1WG0097	MCFD-1567-2.0	F-12	3	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
1WG0104	MCFD-1567-2.0	F-10	3	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
1WG0112	MCFD-1567-2.0	F-08	3	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
1WG0117	MCFD-1567-2.0	F-05	3	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
1WG0124	MCFD-1567-2.0	F-03	3	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
1WG0146	MCFD-1567-2.1	F-11	3	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
1WG0153	MCFD-1567-2.1	F-06	3	C	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None

Valve	Flow Diagram		ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	PI	Test Type	Test Type Description	Test Direction	Relief Request
WL - Liquid Waste Recycle													
1WL0264	MCFD-1565-1.0	J-02	2	AC	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None
2WL0264	MCFD-2565-1.0	J-02	2	AC	Yes	Relief	Self Actuated	None	No	RV	Safety and Relief Valve Test	Closed to Open	None

Equipment ID	Description	Flow Diagram	Pump	ASME	Test Type	Relief Request
FD - Diesel Generator Fuel Oil						
1FDPU0054	Diesel Generator Fuel Oil Transfer Pump 1A	MC-1609-3.0	Gear Positive Displacement	3		
					Vibration Test	MC-GRP-01, MC-SRP-FD-01
					Flow/Differential Pressure Test	MC-SRP-FD-01
2FDPU0054	Diesel Generator Fuel Oil Transfer Pump 2A	MC-2609-3.0	Gear Positive Displacement	3		
					Vibration Test	MC-GRP-01, MC-SRP-FD-01
					Flow/Differential Pressure Test	MC-SRP-FD-01
1FDPU0055	Diesel Generator Fuel Oil Transfer Pump 1B	MC-1609-3.1	Gear Positive Displacement	3		
					Vibration Test	MC-GRP-01, MC-SRP-FD-01
					Flow/Differential Pressure Test	MC-SRP-FD-01
2FDPU0055	Diesel Generator Fuel Oil Transfer Pump 2B	MC-2609-3.1	Gear Positive Displacement	3		
					Vibration Test	MC-GRP-01, MC-SRP-FD-01
					Flow/Differential Pressure Test	MC-SRP-FD-01

SUMMARY OF CHANGES
McGuire Nuclear Station
Unit 1 and Unit 2

Changes for McGuire Unit 1 and Unit 2 are listed on pages 1 through 4. Detailed description of changes is listed on pages 5 through 16. The new revision number (26) applies to both units. The effective date for the changes as provided by this submittal is August 1, 2002.

ABBREVIATION CHANGES - All codes have been reviewed to align with recommendations in publication "Guidelines for Inservice Testing at Nuclear Power Plant, NUREG 1482."

IN-SERVICE TESTING PROGRAM DOCUMENT - Revision 2 Added

TABLE OF ABBREVIATIONS - Added following Code in Frequency: (CM) Condition Monitoring

JUSTIFICATION FOR DEFERRAL - REVISIONS

Revisions to Justification for Deferral:

JFD Number	Valve Number(s)	Change
MC-CA-02	2CA0165, 2CA0166	Deleted-Included in the Condition Monitoring Program.
MC-NC-04	2NC0059	Deleted-Included in the Condition Monitoring Program.
MC-ND-06	2ND0008, 2ND0023	Deleted-Included in the Condition Monitoring Program.
MC-NI-04	1(2)NI0121A, 1(2)NI0152B	Additional comments on Basis for Deferral to clarify position.
MC-NI-16	1(2)NI0126, 1(2)NI0134	Revised to include valves.
MC-NI-18	2NI0175, 2NI0176, 2NI0180, 2NI0181	Deleted-Included in the Condition Monitoring Program.
MC-NI-19	1(2)NI0126, 1(2)NI0134	Moved to MC-NI-16
MC-NI-22	1NI0059, 1NI0070, 1NI0081, 1NI0093	Test Alternative modified.
	2NI0059, 2NI0070, 2NI0081, 2NI0093	Deleted-Included in the Condition Monitoring Program.
MC-NI-24	1NI0060, 1NI0071, 1NI0082, 1NI0094	Test Alternative modified.
	2NI0060, 2NI0071, 2NI0082, 2NI0094	Deleted-Included in the Condition Monitoring Program.
MC-NS-03	1(2)NS0004, 1(2)NS0021	Test Alternative modified.
MC-NS-04	2NS0140, 2NS0141	Removed from IST program.
MC-NS-06	1(2)NS0001, 1(2)NS0018	Editorial correction.
MC-NV-09	1(2)NV0265B	Additional comments on Basis for Deferral to clarify position.
MC-SA-01	2SA0005, 1(2)SA0006	Deleted-Included in the Condition Monitoring Program.

JUSTIFICATION FOR DEFERRAL - NEW

The following numbers have been added to the McGuire Inservice Testing Program:

JFD Number	Valves
MC-BB-01	1(2)BB0001B, 1(2)BB0002B, 1(2)BB0003B, 1(2)BB0004B, 1(2)BB0005A, 1(2)BB0006A, 1(2)BB0007A, 1(2)BB0008A
MC-NB-03	1NB0103
MC-NF-02	1(2)NF0228A, 1(2)NF0233B, 1(2)NF0234A
MC-NM-02	1(2)NM0003AC, 1(2)NM0006AC, 1(2)NM0007B, 1(2)NM0022AC, 1(2)NM0025AC, 1(2)NM0026B
MC-NS-07	1(2)NS0161, 1(2)NS0163

SUMMARY OF CHANGES
McGuire Nuclear Station
Unit 1 and Unit 2

JUSTIFICATION FOR DEFERRAL -DELETED

The following numbers have been deleted from the McGuire Inservice Testing Program:

JFD Number	Valves
MC-KC-05	1(2)KC0280
MC-KC-07	1(2)KC0279
MC-KC-09	1(2)KC0047
MC-NB-02	2NB0438
MC-NC-03	1(2)NC0259, 1(2)NC0261
MC-NI-19	1(2)NI0125,1(2)NI0129
MC-NM-01	1(2)NM0420,1(2)NM0421
MC-NV-03	1(2)NV0021A
MC-NV-18	2NV1034
MC-WL-01	1(2)WL0024
MC-WL-02	1(2)WL0385

PUMPS SPECIFIC RELIEF REQUEST - REVISED

Revisions to Relief Request:

MC-SPR-NI-01	1(2)NIPU0009,10
MC-SPR-NV-01	1(2)NVPU0015,16

PUMPS SPECIFIC RELIEF REQUEST - DELETED

The following number has been deleted from the McGuire Inservice Testing Program:

MC-SPR-CA-01	1(2)CAPU0001,2,3

VALVES GENERIC RELIEF REQUEST - NEW

The following number has been added to the McGuire Inservice Testing Program:

MC-GRV-04	Appendix II Check Valve Condition Monitoring

VALVES SPECIFIC RELIEF REQUEST - REVISIONS

MC-SRV-NS-01	2NS0013,2NS0016,2NS0030,2NS0033,2NS0041,2NS0046 Deleted from Relief Request.

VALVES - REMOVED FROM McGUIRE INSERVICE TESTING

The following valves have been **deleted** from the McGuire Inservice Testing Program:

System	Valves
CA	1(2) CA0020AB, 1(2)CA0027A, 1(2)CA0032B
NB	2NB0438
NS	2NS0140, 2NS0141
NV	1(2)NV0021A, 2NV1034
RN	1(2RN0073A, 1(2)RN0174B, 1RN0442, 1RN0445, 1RN0457,1RN0460
YC	1YC0038A, 1YC0039B

VALVES - ADDED TO McGUIRE INSERVICE TESTING PROGRAM

The following valves have been **added** to the McGuire Inservice Testing Program:

System	Valves
CA	1(2)CA0232, 1(2)CA0235, 1(2)CA0238

SUMMARY OF CHANGES
McGuire Nuclear Station
Unit 1 and Unit 2

GN	2GN0173, 2GN0174, 2GN0177, 2GN0178, 2GN0185, 2GN0186, 2GN0190, 2GN0191
NS	1(2)NS0161, 1(2)NS0163

VALVES – ADDITIONAL TEST INCLUDED IN McGUIRE SUPPLEMENTAL TESTING

The following valves have been **included** in the SUPPLEMENTAL PROGRAM

System	Valves
CA	1(2)CA0250, 1(2)CA0251, 1(2)CA0252

VALVES - CHANGES TO SUPPLEMENTAL TEST PROGRAM

1NV1012C	Position Indicator test added.-correct editorial omission
1NV1013C	Position Indicator test added.-correct editorial omission
2NV842AC	Position Indicator test added.-correct editorial omission

VALVES - CHANGES TO INSERVICE TESTING PROGRAM

1(2)CA0022	Valve Type from "Check" to "Three Way", test direction to "Both"
1(2)CA0026	Valve Type from "Check" to "Three Way", test direction to "Both"
1(2)CA0031	Valve Type from "Check" to "Three Way", test direction to "Both"
1(2)CA0038B	Actuator Type from "Limitorque" to "Rotork"
1(2)CA0050B	Actuator Type from "Limitorque" to "Rotork"
1(2)CA0054AC	Actuator Type from "Limitorque" to "Rotork"
1(2)CA0066AC	Actuator Type from "Limitorque" to "Rotork"
2CF0026AB	Actuator Type from "Electro-Hydraulic" to "Air"
2CF0028AB	Actuator Type from "Electro-Hydraulic" to "Air"
2CF0030AB	Actuator Type from "Electro-Hydraulic" to "Air"
2CF0035AB	Actuator Type from "Electro-Hydraulic" to "Air"
1(2)KC0047	Revised to non-active classification
2KC0081B	Actuator Type from "Rotork" to "Limitorque"
1(2)KC0279	Revised to non-active classification
1(2)KC0280	Revised to non-active classification
1(2)NC0032B	Addition testing information for clarification
1(2)NC0034A	Addition testing information for clarification
1(2)NC0036B	Addition testing information for clarification
1(2)NC0259	Revised to non-active classification
1(2)NC0261	Revised to non-active classification
1(2)ND0014	Editorial correction to ND0014B
1(2)ND0058A	Addition testing information for clarification
1(2)NI0101	Deleted testing information - duplicate testing direction
1(2)NI0165	Deleted testing information - duplicate testing direction
1(2)NI0167	Deleted testing information - duplicate testing direction
1(2)NI0169	Deleted testing information - duplicate testing direction
1(2)NI0171	Deleted testing information - duplicate testing direction
1(2)NM0420	Revised to non-active classification
1(2)NM0421	Revised to non-active classification
1(2)NS0004	Test Type evaluation-changed per recommendation
1(2)NS0021	Test Type evaluation-changed per recommendation
1(2)WL0024	Revised to non-active classification
1(2)WL0385	Revised to non-active classification

SUMMARY OF CHANGES
McGuire Nuclear Station
Unit 1 and Unit 2

Valves - For Inclusion in Appendix II Check Valve Condition Monitoring Program

All valves assigned Relief Request Number MC-GRV-04

2CA0165	2NI0082	2NS0033
2CA0166	2NI0093	2NS0041
2NC0059	2NI0094	2NS0046
2ND0008	2NI0175	2NS0161
2ND0023	2NI0176	2NS0163
2NI0059	2NI0180	2SA0005
2NI0060	2NI0181	2SA0006
2NI0070	2NS0013	
2NI0071	2NS0016	
2NI0081	2NS0030	

1,2BB-1B	Justification For Deferral MC-BB-01 has been written to revise the frequency of the stroke timing test from quarterly to cold shutdown. These valves are challenged close to their structural limit and when tested on a quarterly frequency have developed external leaks. NUREG 1482 section 2.4.5 states that undue stress or reducing the life expectancy of components is sufficient justification to defer to cold shutdown
1,2BB-2B	Justification For Deferral MC-BB-01 has been written to revise the frequency of the stroke timing test from quarterly to cold shutdown. These valves are challenged close to their structural limit and when tested on a quarterly frequency have developed external leaks. NUREG 1482 section 2.4.5 states that undue stress or reducing the life expectancy of components is sufficient justification to defer to cold shutdown
1,2BB-3B	Justification For Deferral MC-BB-01 has been written to revise the frequency of the stroke timing test from quarterly to cold shutdown. These valves are challenged close to their structural limit and when tested on a quarterly frequency have developed external leaks. NUREG 1482 section 2.4.5 states that undue stress or reducing the life expectancy of components is sufficient justification to defer to cold shutdown
1,2BB-4B	Justification For Deferral MC-BB-01 has been written to revise the frequency of the stroke timing test from quarterly to cold shutdown. These valves are challenged close to their structural limit and when tested on a quarterly frequency have developed external leaks. NUREG 1482 section 2.4.5 states that undue stress or reducing the life expectancy of components is sufficient justification to defer to cold shutdown
1,2BB-5A	Justification For Deferral MC-BB-01 has been written to revise the frequency of the stroke timing test from quarterly to cold shutdown. These valves are challenged close to their structural limit and when tested on a quarterly frequency have developed external leaks. NUREG 1482 section 2.4.5 states that undue stress or reducing the life expectancy of components is sufficient justification to defer to cold shutdown
1,2BB-6A	Justification For Deferral MC-BB-01 has been written to revise the frequency of the stroke timing test from quarterly to cold shutdown. These valves are challenged close to their structural limit and when tested on a quarterly frequency have developed external leaks. NUREG 1482 section 2.4.5 states that undue stress or reducing the life expectancy of components is sufficient justification to defer to cold shutdown
1,2BB-7A	Justification For Deferral MC-BB-01 has been written to revise the frequency of the stroke timing test from quarterly to cold shutdown. These valves are challenged close to their structural limit and when tested on a quarterly frequency have developed external leaks. NUREG 1482 section 2.4.5 states that undue stress or reducing the life expectancy of components is sufficient justification to defer to cold shutdown
1,2BB-8A	Justification For Deferral MC-BB-01 has been written to revise the frequency of the stroke timing test from quarterly to cold shutdown. These valves are challenged close to their structural limit and when tested on a quarterly frequency have developed external leaks. NUREG 1482 section 2.4.5 states that undue stress or reducing the life expectancy of components is sufficient justification to defer to cold shutdown
1,2CA-20AB	Deleted from IST Program. NSM MG-12515,-22515 changed these former minimum flow valves from normally open to normally closed with a normally closed manual isolation valve both upstream and downstream of them. Accordingly the closure stroke timing and leak rate testing requirements no longer exist.
1,2CA-22	Revised valve type from check valve to 3-way, deleted closure stroke timing and leak rate test and added quarterly full stroke exercise to safety position for both open and closed directions. NSM MG-12515,-22515 changed these former check valves to automatic recirculation control valves which open or close during pump operation to allow or isolate the minimum flowpath to meet system demand.
1,2CA-26	Revised valve type from check valve to 3-way, deleted closure stroke timing and leak rate test and added quarterly full stroke exercise to safety position for both open and closed directions. NSM MG-12515,-22515 changed these former check valves to automatic recirculation control valves which open or close during pump operation to allow or isolate the minimum flowpath to meet system demand.

1,2CA-27A Deleted from IST Program. NSM MG-12515,-22515 changed these former minimum flow valves from normally open to normally closed with a normally closed manual isolation valve both upstream and downstream of them. Accordingly the closure stroke timing and leak rate testing requirements no longer exist.

1,2CA-31 Revised valve type from check valve to 3-way, deleted closure stroke timing and leak rate test and added quarterly full stroke exercise to safety position for both open and closed directions. NSM MG-12515,-22515 changed these former check valves to automatic recirculation control valves which open or close during pump operation to allow or isolate the minimum flowpath to meet system demand.

1,2CA-32B Deleted from IST Program. NSM MG-12515,-22515 changed these former minimum flow valves from normally open to normally closed with a normally closed manual isolation valve both upstream and downstream of them. Accordingly the closure stroke timing and leak rate testing requirements no longer exist.

1,2CA-38B Revised Actuator Type from Limitorque to Rotork. NSM MG-12475/22475 changed the type of motor operator due to obsolete design.

1,2CA-50B Revised Actuator Type from Limitorque to Rotork. NSM MG-12475/22475 changed the type of motor operator due to obsolete design.

1,2CA-54AC Revised Actuator Type from Limitorque to Rotork. NSM MG-12475/22475 changed the type of motor operator due to obsolete design.

1,2CA-66AC Revised Actuator Type from Limitorque to Rotork. NSM MG-12475/22475 changed the type of motor operator due to obsolete design.

2CA-165 Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.

2CA-166 Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.

1,2CA-232 Added to IST Program. NSM MG-12515,-22515 added these check valves to prevent flow diversion from the other CA pumps. These valves are ASME Class 3, Category C, Active, Self Actuated Check valves and are full stroke exercised quarterly for both open and closed directions.

1,2CA-235 Added to IST Program. NSM MG-12515,-22515 added these check valves to prevent flow diversion from the other CA pumps. These valves are ASME Class 3, Category C, Active, Self Actuated Check valves and are full stroke exercised quarterly for both open and closed directions.

1,2CA-238 Added to IST Program. NSM MG-12515,-22515 added these check valves to prevent flow diversion from the other CA pumps. These valves are ASME Class 3, Category C, Active, Self Actuated Check valves and are full stroke exercised quarterly for both open and closed directions.

1,2CA-250 Added to Supplemental Test Program. NSM MG-12515,-22515 added these throttled bleed valves to prevent pressurization downstream of the recirculation control valves in the event of leaking steam generator check valves. Although these valves have a specified maximum allowable leakage limit for flow diversion, they are not considered Category A valves to be leak tested based on NUREG 1482 Question Group 21 Position 3 as follows. "When a valve has a safety-related function to close to prevent diversion of flow between trains of a system, there may be a leakage limit based on the total system requirements. The Code does not specifically require that these valves be Category A."

1,2CA-251 Added to Supplemental Test Program. NSM MG-12515,-22515 added these throttled bleed valves to prevent pressurization downstream of the recirculation control valves in the event of leaking steam generator check

valves. Although these valves have a specified maximum allowable leakage limit for flow diversion, they are not considered Category A valves to be leak tested based on NUREG 1482 Question Group 21 Position 3 as follows. "When a valve has a safety-related function to close to prevent diversion of flow between trains of a system, there may be a leakage limit based on the total system requirements. The Code does not specifically require that these valves be Category A."

1,2CA-252 Added to Supplemental Test Program. NSM MG-12515,-22515 added these throttled bleed valves to prevent pressurization downstream of the recirculation control valves in the event of leaking steam generator check valves. Although these valves have a specified maximum allowable leakage limit for flow diversion, they are not considered Category A valves to be leak tested based on NUREG 1482 Question Group 21 Position 3 as follows. "When a valve has a safety-related function to close to prevent diversion of flow between trains of a system, there may be a leakage limit based on the total system requirements. The Code does not specifically require that these valves be Category A."

2CF-26AB Revised Actuator Type from Electro-Hydraulic to Air. NSM MG-22505 modified the actuator to enhance component reliability on the Feedwater Isolation Valves (FWIVs). Testing requirements remain the same.

2CF-28AB Revised Actuator Type from Electro-Hydraulic to Air. NSM MG-22505 modified the actuator to enhance component reliability on FWIVs. Testing requirements remain the same.

2CF-30AB Revised Actuator Type from Electro-Hydraulic to Air. NSM MG-22505 modified the actuator to enhance component reliability on the FWIVs. Testing requirements remain the same.

2CF-35AB Revised Actuator Type from Electro-Hydraulic to Air. NSM MG-22505 modified the actuator to enhance component reliability on the FWIVs. Testing requirements remain the same.

2GN-173 Added to IST Program. NSM MG-22505 modified the main FWIV actuators to enhance component reliability. These check valves were included in the scope of the modification to provide and maintain nitrogen supply to support operation of the FWIVs. They are leakage tested each refueling outage in the accident direction (closed).

2GN-174 Added to IST Program. NSM MG-22505 modified the main FWIV actuators to enhance component reliability. These check valves were included in the scope of the modification to provide and maintain nitrogen supply to support operation of the FWIVs. They are leakage tested each refueling outage in the accident direction (closed).

2GN-177 Added to IST Program. NSM MG-22505 modified the main FWIV actuators to enhance component reliability. These check valves were included in the scope of the modification to provide and maintain nitrogen supply to support operation of the FWIVs. They are leakage tested each refueling outage in the accident direction (closed).

2GN-178 Added to IST Program. NSM MG-22505 modified the main FWIV actuators to enhance component reliability. These check valves were included in the scope of the modification to provide and maintain nitrogen supply to support operation of the FWIVs. They are leakage tested each refueling outage in the accident direction (closed).

2GN-185 Added to IST Program. NSM MG-22505 modified the main FWIV actuators to enhance component reliability. These check valves were included in the scope of the modification to provide and maintain nitrogen supply to support operation of the FWIVs. They are leakage tested each refueling outage in the accident direction (closed).

2GN-186 Added to IST Program. NSM MG-22505 modified the main FWIV actuators to enhance component reliability. These check valves were included in the scope of the modification to provide and maintain

nitrogen supply to support operation of the FWIVs. They are leakage tested each refueling outage in the accident direction (closed).

2GN-190 Added to IST Program. NSM MG-22505 modified the main FWIV actuators to enhance component reliability. These check valves were included in the scope of the modification to provide and maintain nitrogen supply to support operation of the FWIVs. They are leakage tested each refueling outage in the accident direction (closed).

2GN-191 Added to IST Program. NSM MG-22505 modified the main FWIV actuators to enhance component reliability. These check valves were included in the scope of the modification to provide and maintain nitrogen supply to support operation of the FWIVs. They are leakage tested each refueling outage in the accident direction (closed).

1,2KC-47 Revised to non-active classification. These normally closed check valves provide a pressure relief path for containment penetration thermal expansion. This is not considered an active safety function. These valves will continue to be in IST program for Appendix J penetration local leak rate testing, but no longer to verify closure.

2KC-81 Revised Actuator Type from Rotork to Limitorque. MGMM 11599 changed the type of motor operator due to obsolete design.

1,2KC-279 Revised to non-active classification. These normally closed check valves provide a pressure relief path for containment penetration thermal expansion. This is not considered an active safety function. These valves will continue to be in IST program for Appendix J penetration local leak rate testing, but no longer to verify closure.

1,2KC-280 Revised to non-active classification. These normally closed check valves provide a pressure relief path for containment penetration thermal expansion. This is not considered an active safety function. These valves will continue to be in IST program for Appendix J penetration local leak rate testing, but no longer to verify closure.

1NB-103 Because it is not practicable to align this check valve to verify flow quarterly, justification for deferral MC-NB-03 has been written to defer the full stroke exercise test to a refueling outage frequency.

2NB-438 Deleted from IST Program. This check valve was reclassified to non-active classification as it serves no safety function. The piping configuration will prevent any leak that would not be contained within the Auxiliary Building.

1,2NC-32B Added clarification that the full stroke timing test is tested at cold shutdown but at hot conditions prior to LTOP.

1,2NC-34A Added clarification that the full stroke timing test is tested at cold shutdown but at hot conditions prior to LTOP.

1,2NC-36B Added clarification that the full stroke timing test is tested at cold shutdown but at hot conditions prior to LTOP.

2NC-59 Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.

1,2NC-259 Revised to non-active classification. These normally closed check valves provide a pressure relief path for containment penetration thermal expansion. This is not considered an active safety function. These valves will continue to be in IST program for Appendix J penetration local leak rate testing, but no longer to verify closure.

1,2NC-261	Revised to non-active classification. These normally closed check valves provide a pressure relief path for containment penetration thermal expansion. This is not considered an active safety function. These valves will continue to be in IST program for Appendix J penetration local leak rate testing, but no longer to verify closure.
2ND-8	Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.
2ND-23	Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.
1,2ND-58A	Revised test direction from Both to Closed to Open to be consistent with 1,2NI-136B as identified by PIP M-01-0854.
1,2NF-228A	Justification For Deferral MC-NF-02 has been written to revise the frequency of the stroke timing test from quarterly to cold shutdown. These valves if they failed in a non-conservative position during testing could cause a loss of system function to provide continuous cooling to the ice condensers. Additionally, the glycol pumps and chillers had to be shutdown each time these valves were tested. Both the hardship of shutting down the pumps as well as the potential for failure in the closed position to cause a loss of system function are sufficient justification for deferral to cold shutdown frequency under NUREG-1482.
1,2NF-233B	Justification For Deferral MC-NF-02 has been written to revise the frequency of the stroke timing test from quarterly to cold shutdown. These valves if they failed in a non-conservative position during testing could cause a loss of system function to provide continuous cooling to the ice condensers. Additionally, the glycol pumps and chillers had to be shutdown each time these valves were tested. Both the hardship of shutting down the pumps as well as the potential for failure in the closed position to cause a loss of system function are sufficient justification for deferral to cold shutdown frequency under NUREG-1482.
1,2NF-234A	Justification For Deferral MC-NF-02 has been written to revise the frequency of the stroke timing test from quarterly to cold shutdown. These valves if they failed in a non-conservative position during testing could cause a loss of system function to provide continuous cooling to the ice condensers. Additionally, the glycol pumps and chillers had to be shutdown each time these valves were tested. Both the hardship of shutting down the pumps as well as the potential for failure in the closed position to cause a loss of system function are sufficient justification for deferral to cold shutdown frequency under NUREG-1482.
1,2NI-59	Deleted sample disassembly and partial stroke and added Full Stroke Exercise to Safety Position (Closed to Open) on a refueling outage frequency.
2NI-59	Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.
1,2NI-60	Deleted sample disassembly and partial stroke and added Full Stroke Exercise to Safety Position (Closed to Open) on a refueling outage frequency.
2NI-60	Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.
1,2NI-70	Deleted sample disassembly and partial stroke and added Full Stroke Exercise to Safety Position (Closed to Open) on a refueling outage frequency.
2NI-70	Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.

1,2NI-71	Deleted sample disassembly and partial stroke and added Full Stroke Exercise to Safety Position (Closed to Open) on a refueling outage frequency.
2NI-71	Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.
1,2NI-81	Deleted sample disassembly and partial stroke and added Full Stroke Exercise to Safety Position (Closed to Open) on a refueling outage frequency.
2NI-81	Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.
1,2NI-82	Deleted sample disassembly and partial stroke and added Full Stroke Exercise to Safety Position (Closed to Open) on a refueling outage frequency.
2NI-82	Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.
1,2NI-93	Deleted sample disassembly and partial stroke and added Full Stroke Exercise to Safety Position (Closed to Open) on a refueling outage frequency.
2NI-93	Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.
1,2NI-94	Deleted sample disassembly and partial stroke and added Full Stroke Exercise to Safety Position (Closed to Open) on a refueling outage frequency.
2NI-94	Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.
1,2NI-101	Deleted Full Stroke Exercise to Safety Position closed to open which was a duplicate to the Full Stroke Exercise to Safety Position Both directions.
1,2NI-125	Full Stroke Exercise to Safety Position (Closed to Open) is deleted from IST program because ND flow to the hot legs is no longer credited by the safety analysis.
1,2NI-126	Revised JOD from MC-NI-19 to MC-NI-16 because ND flow to the hot legs is no longer credited by the safety analysis.
1,2NI-129	Full Stroke Exercise to Safety Position (Closed to Open) is deleted from IST program because ND flow to the hot legs is no longer credited by the safety analysis.
1,2NI-134	Revised JOD from MC-NI-19 to MC-NI-16 because ND flow to the hot legs is no longer credited by the safety analysis.
1,2NI-165	Deleted Full Stroke Exercise to Safety Position closed to open which was a duplicate to the Full Stroke Exercise to Safety Position Both directions.
1,2NI-167	Deleted Full Stroke Exercise to Safety Position closed to open which was a duplicate to the Full Stroke Exercise to Safety Position Both directions.
1,2NI-169	Deleted Full Stroke Exercise to Safety Position closed to open which was a duplicate to the Full Stroke Exercise to Safety Position Both directions.

1,2NI-171	Deleted Full Stroke Exercise to Safety Position closed to open which was a duplicate to the Full Stroke Exercise to Safety Position Both directions.
2NI-175	Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.
2NI-176	Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.
2NI-180	Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.
2NI-181	Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.
1,2NM-3AC	Justification For Deferral MC-NM-02 has been written to revise the frequency of the stroke timing test from quarterly to cold shutdown. These valves are challenged close to their structural limit and when tested on a quarterly frequency have developed external leaks. NUREG 1482 section 2.4.5 states that undue stress or reducing the life expectancy of components is sufficient justification to defer to cold shutdown.
1,2NM-6AC	Justification For Deferral MC-NM-02 has been written to revise the frequency of the stroke timing test from quarterly to cold shutdown. These valves are challenged close to their structural limit and when tested on a quarterly frequency have developed external leaks. NUREG 1482 section 2.4.5 states that undue stress or reducing the life expectancy of components is sufficient justification to defer to cold shutdown.
1,2NM-7B	Justification For Deferral MC-NM-02 has been written to revise the frequency of the stroke timing test from quarterly to cold shutdown. These valves are challenged close to their structural limit and when tested on a quarterly frequency have developed external leaks. NUREG 1482 section 2.4.5 states that undue stress or reducing the life expectancy of components is sufficient justification to defer to cold shutdown.
1,2NM-22AC	Justification For Deferral MC-NM-02 has been written to revise the frequency of the stroke timing test from quarterly to cold shutdown. These valves are challenged close to their structural limit and when tested on a quarterly frequency have developed external leaks. NUREG 1482 section 2.4.5 states that undue stress or reducing the life expectancy of components is sufficient justification to defer to cold shutdown.
1,2NM-25AC	Justification For Deferral MC-NM-02 has been written to revise the frequency of the stroke timing test from quarterly to cold shutdown. These valves are challenged close to their structural limit and when tested on a quarterly frequency have developed external leaks. NUREG 1482 section 2.4.5 states that undue stress or reducing the life expectancy of components is sufficient justification to defer to cold shutdown.
1,2NM-26B	Justification For Deferral MC-NM-02 has been written to revise the frequency of the stroke timing test from quarterly to cold shutdown. These valves are challenged close to their structural limit and when tested on a quarterly frequency have developed external leaks. NUREG 1482 section 2.4.5 states that undue stress or reducing the life expectancy of components is sufficient justification to defer to cold shutdown.
1,2NM-420	Revised to non-active classification. These normally closed check valves provide a pressure relief path for containment penetration thermal expansion. This is not considered an active safety function. These valves will continue to be in IST program for Appendix J penetration local leak rate testing, but no longer to verify closure.
1,2NM-421	Revised to non-active classification. These normally closed check valves provide a pressure relief path for containment penetration thermal expansion. This is not considered an active safety function. These valves will continue to be in IST program for Appendix J penetration local leak rate testing, but no longer to verify closure.

1,2NS-4	Deleted sample disassembly and partial stroke (Open to Closed) and added Full Stroke Exercise to Safety Position (Closed to Open) on a refueling outage frequency.
2NS-13	Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.
2NS-16	Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.
1,2NS-21	Deleted sample disassembly and partial stroke (Open to Closed) and added Full Stroke Exercise to Safety Position (Closed to Open) on a refueling outage frequency.
2NS-30	Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.
2NS-33	Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.
2NS-41	Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.
2NS-46	Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.
2NS-140	Deleted from IST program. MGMM-12756 removed the internals from these check valve after the leakage test requirements were transferred to pump discharge check valve 2NS-161. Identical changes are planned but not yet implemented for check valves 1NS-140 and 1NS-141. Also revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program prior to deletion.
2NS-141	Deleted from IST program. MGMM-12756 removed the internals from these check valve after the leakage test requirements were transferred to pump discharge check valve 2NS-163. Identical changes are planned but not yet implemented for check valves 1NS-140 and 1NS-141. Also revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program prior to deletion.
1NS-161	Added valve to IST program under NSM MG-12514. These valves are ASME Class 3, Category C, Active, Self Actuated Check valves and are partial stroked on a quarterly frequency and full stroke exercised on a refueling outage frequency for open direction.
2NS-161	Added valve to IST program under NSM MG-22514. These valves are ASME Class 3, Category AC, Active, Self Actuated Check valves and are partial stroked on a quarterly frequency and full stroke exercised on a refueling outage frequency for open direction. MGMM-12756 added leak rate test to section XI Requirements on a refueling outage frequency prior to removing internals from check valve 2NS-140. Also revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.
1NS-163	Added valve to IST program under NSM MG-12514. These valves are ASME Class 3, Category C, Active, Self Actuated Check valves and are partial stroked on a quarterly frequency and full stroke exercised on a refueling outage frequency for open direction.
2NS-163	Added valve to IST program under NSM MG-22514. These valves are ASME Class 3, Category AC, Active, Self Actuated Check valves and are partial stroked on a quarterly frequency and full stroke exercised on a refueling outage frequency for open direction. MGMM-12756 added leak rate test to section XI Requirements on a refueling outage frequency prior to removing internals from check valve 2NS-141. Also revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.

1,2NV-21A	Deleted from IST Program. MGMM-13286 reclassified these valves to non-active classification. Accordingly they are removed from the IST Program.
2NV-842AC	Added Position Indicator test to Supplemental Test Program to correct editorial omission.
1NV-1012C	Added Position Indicator test to Supplemental Test Program to correct editorial omission.
1NV-1013C	Added Position Indicator test to Supplemental Test Program to correct editorial omission.
2NV-1034	Deleted from IST Program. This check valve was reclassified to non-active classification as it serves no safety function. The piping configuration will prevent any leak that would not be contained within the Auxiliary Building.
1,2RN-73A	Deleted from IST Program. MGMM 13077 reclassified these valves to non-active classification. Accordingly they are removed from the IST Program.
1,2RN-174B	Deleted from IST Program. MGMM 13077 reclassified these valves to non-active classification. Accordingly they are removed from the IST Program.
1RN-442	Deleted from IST Program NSM MG-52493 removed it from service.
1RN-445	Deleted from IST Program NSM MG-52493 revised it to a self-regulating control valve which no longer requires inclusion in the IST program.
1RN-457	Deleted from IST Program NSM MG-52493 removed it from service.
1RN-460	Deleted from IST Program NSM MG-552493 revised it to a self-regulating control valve which no longer requires inclusion in the IST program.
2SA-5	Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.
2SA-6	Revised to include relief request MC-GRV-04 for inclusion in the Check Valve Condition Monitoring Program.
1,2WL-24	Revised to non-active classification. These normally closed check valves provide a pressure relief path for containment penetration thermal expansion. This is not considered an active safety function. These valves will continue to be in IST program for Appendix J penetration local leak rate testing, but no longer to verify closure.
1,2WL-385	Revised to non-active classification. These normally closed check valves provide a pressure relief path for containment penetration thermal expansion. This is not considered an active safety function. These valves will continue to be in IST program for Appendix J penetration local leak rate testing, but no longer to verify closure.
1YC-38A	Deleted from IST. PIP M 00-4264 reclassified these valves to non-active classification. Accordingly they are removed from the IST Program.
1YC-39B	Deleted from IST. PIP M 00-4264 reclassified these valves to non-active classification. Accordingly they are removed from the IST Program.

Justification For Deferral MC-BB-01 has been added to describe deferral of stroke timing test for valves 1,2BB-1B,-2B,-3B,-4B,-5A,-6A,-7A and -8A from quarterly to cold shutdown conditions.

Justification For Deferral MC-CA-02 has been revised to delete valve 2CA-165 and 2CA-166 since it has been included in the Condition Monitoring Program.

Justification For Deferral MC-KC-05 has been deleted since 1,2KC-280 are no longer active valves.

Justification For Deferral MC-KC-07 has been deleted since 1,2KC-279 are no longer active valves.

Justification For Deferral MC-KC-09 has been deleted since 1,2KC-47 are no longer active valves.

Justification For Deferral MC-NB-02 has been deleted since 2NB-438 has been deleted from IST program.

Justification For Deferral MC-NB-03 has been added to describe deferral of check valve 1NB-103 testing from quarterly to refueling outage frequency.

Justification For Deferral MC-NC-03 has been deleted since valves 1,2NC-259 -261 are no longer active valves.

Justification For Deferral MC-NC-04 has been revised to delete valve 2NC-59 since it has been included in the Condition Monitoring Program.

Justification For Deferral MC-ND-06 has been revised to delete valves 2ND-8 and 2ND-23 since they have been included in the Condition Monitoring Program.

Justification For Deferral MC-NF-02 has been added to describe deferral of stroke timing test for valves 1,2NF-228A, -233B and - 234A from quarterly to cold shutdown conditions to avoid aligning valves in a position which could fail thus compromising the continued safety function of the ice bed.

Justification For Deferral MC-NI-04 has been revised to elaborate on the basis for deferral. Various measures can be taken to allow stroking valves 1,2NI-121A, -152B on-line even though they are administratively closed with power removed in Modes 1-4. The measures are considered hardships in NUREG 1482 Section 3.1.1 which is now included in the basis for deferral.

Justification For Deferral MC-NI-16 has been revised to include valves 1,2NI-126 and -134. Deletion of full stroke closed to open for check valves 1,2NI-125,-129 from IST program and the deletion of the requirement to verify ND flow through valves 1,2NI-126, -134 allows these check valves to be grouped with the other NI to Hot Legs check valves which are now included in this Justification For Deferral instead of MC-NI-19.

Justification For Deferral MC-NI-18 has been revised to delete valves 2NI-175,-176,-180,-181 since they have been included in the Condition Monitoring Program.

Justification For Deferral MC-NI-19 has been deleted since ND flow to Hot Legs is no longer considered a design basis requirement. Accordingly the Full Stroke Exercise open is deleted and only the LTTS (and closure) remains which does not require a JFD. Also valves 1,2NI-126 , -134 have been moved to Justification For Deferral MC-NI-16 so that all valves which require only NI flow to Hot Legs are grouped in the same JFD.

Justification For Deferral MC-NI-22 has been revised to describe full stroke acoustic monitoring as test alternative and basis for deferral instead of sample disassembly in No Mode and to remove discussion of sample disassembly. It has also been revised to delete valves 2NI-59,-70,-81,-93 since they have been included in the Condition Monitoring Program.

Justification For Deferral MC-NI-24 has been revised to describe full stroke acoustic monitoring as test alternative and basis for deferral instead of sample disassembly in No Mode and to remove discussion of sample disassembly. It has also been revised to delete valves 2NI-60,-71,-82,-94 since they have been included in the Condition Monitoring Program.

Justification For Deferral MC-NM-01 has been deleted since 1,2NM-420,-421 are no longer active valves.

Justification For Deferral MC-NM-02 has been added to defer stroke time testing on the NM pressurizer and hot leg sample lines to cold shutdown to eliminate the possibility of reducing life expectancy on the valves due to frequent testing.

Justification For Deferral MC-NS-03 has been revised to eliminate the closure requirement since the check valves are no longer relied upon to provide separation between the sump and FWST. Also the method for verifying full stroke exercise to safety position (Closed to Open) has been changed from sample disassembly to allow other test methods on a refueling outage frequency. It has also been revised to delete valve 2NS-21 since it has been included in the Condition Monitoring Program.

Justification For Deferral MC-NS-04 has been revised to delete valves 2NS-140 and 2NS-141 from applicability valve list since MGMM-12756 removed the internals from the check valve. The remaining valves will be deleted from the list as identical changes are implemented for check valves 1NS-140 and 1NS-141.

Justification For Deferral MC-NS-06 has been revised to correct test requirement to show stroke time test quarterly and to correct test alternative & frequency to stroke time open testing at cold shutdown for valves 1,2NS-1 and 1,2NS-18 instead of full stroke exercise test closed.

Justification For Deferral MC-NS-07 has been added to defer full stroke open exercise test from quarterly to refueling outage frequency for valves 1NS-161 and 1NS-163 based on hardship of the intrusive test if performed on a more frequent basis. Although initially included in this JFD, valves 2NS-161 and 2NS-163 have been removed because they have been included in the Condition Monitoring Program.

Justification For Deferral MC-NV-03 has been deleted since 1,2NV-21A has been deleted from the IST program.

Justification For Deferral MC-NV-09 has been revised to elaborate on the basis for deferral. By securing the BAT pump stroking these valves 1,2NV-265B on-line. This measure taken on a quarterly frequency is considered a hardship in NUREG 1482 Section 3.1.1 which is now included in the basis for deferral.

Justification For Deferral MC-NV-18 has been deleted since 2NV-1034 has been deleted from the IST program.

Justification For Deferral MC-SA-01 has been revised to delete valve 2SA-5, and 2SA-6 since it has been included in the Condition Monitoring Program.

Justification For Deferral MC-WL-01 has been deleted since 1,2WL-24 are no longer active valves.

Justification For Deferral MC-WL-02 has been deleted since 1,2WL-385 are no longer active valves.

Generic Relief Request MC-GRV-04 has been submitted to allow implementation of the Appendix II Check Valve Condition Monitoring Program.

Specific Relief Request MC-SRP-NI-01 is revised. Digital suction pressure instruments may be used to allow testing of NI pumps with suction aligned to either the FWST or the ND system for accuracy in compliance with OMa-1988 Part 6, Section 4.6.1.2 without having to install test instrumentation and without exceeding the range of the instruments.

Specific Relief Request MC-SRP-NV-01 is revised. Digital suction pressure instruments may be used to allow testing of NV pumps with suction aligned to either the FWST or the ND system for accuracy in compliance with OMa-1988

Part 6, Section 4.6.1.2 without having to install test instrumentation and without exceeding the range of the instruments.

Specific Relief Request MC-SRP-CA-01 is deleted. With the normal and test suction source now provided by the CACST, the suction pressure is now around 40 psig so the 100 psig gauge is in compliance with OMa-1988 Part 6, Section 4.6.1.2.a and a relief request is no longer needed.

Specific Relief Request MC-SRV-NS-01 has been revised to delete the Unit 2 valves from applicability. Since these valves have been included in the Check Valve Condition Monitoring Program, the specific relief request is no longer applicable.